AI-BASED LEARNING STYLE PREDICTION IN ONLINE LEARNING FOR PRIMARY EDUCATION

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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April 2023

DEPT. OF COMPUTER SCIENCE AND ENGINEERING

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Abstract

This abstract introduces the concept of AI-based learning style prediction in online learning for primary education. As online learning platforms become increasingly popular, it is essential to personalize education to meet the diverse learning styles of primary school students. By leveraging artificial intelligence techniques, this approach aims to predict individual learning styles using data from user interactions, performance metrics, and demographic information. Machine learning algorithms are utilized to model the relationship between collected data and learning styles. The proposed system enables educators to tailor instructional content and teaching methods to match each student's preferences, leading to more effective and engaging learning experiences. Ethical considerations and the potential impact of this technology on primary education are also discussed. Overall, AI-based learning style prediction has the potential to revolutionize online learning by providing adaptive and inclusive educational environments for primary school students..

Chapter 7

Conclusion

In conclusion, the project aims to develop an AI-based learning style prediction system for online learning in primary education. By leveraging predictive learning styles, the system can provide personalized learning experiences to students and enhance their engagement and performance. The feasibility studies indicate that the project is technically feasible, economically viable, and operationally practical. With the potential to improve the effectiveness of online education, this project holds promise for transforming the way primary education is delivered and experienced.

Weapon Detection in Real-Time CCTV Videos Using Deep Learning

A Mini Project Report

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Abstract

The proposed project is a comprehensive security system that utilizes OpenCV and advanced machine learning algorithms to detect and identify dangerous weapons such as guns, explosives, and sharp knives in real-time CCTV video streams. The system employs deep learning techniques such as Haar cascade classifier to detect and classify objects accurately and efficiently.

The project aims to enhance public safety by deploying the system in public spaces such as airports, train stations, and government buildings. The system will capture high-quality video footage from existing CCTV cameras and analyze it in real-time using state-of-the-art algorithms to identify potential threats. The system can also integrate with other public safety systems such as emergency response systems and crisis management platforms to provide a comprehensive public safety solution.

The project's primary aim is to enhance public safety by detecting potential threats and alerting emergency services personnel in real-time, preventing incidents before they occur. The system's versatility and scalability make it an ideal solution for a wide range of public safety applications, from public spaces such as airports and train stations to private organizations such as banks and hospitals.

In conclusion, this project represents a powerful and effective solution for enhancing public safety and security through the use of advanced machine learning and computer vision techniques.

Chapter 7

Conclusion

Closed Circuit Television (CCTV) cameras are commonly used for surveillance and monitoring activities. However, the automatic detection of harmful weapons in real-time remains a serious challenge due to various factors such as angle differences and occlusions. In this project, we have proposed using state-of-the-art open-source deep learning algorithms to detect harmful weapons in CCTV footage, and have implemented a Haar cascade classifier to classify positive and negative data points. Overall, the proposed solution provides a significant contribution towards ensuring security and safety in public places, and it has the potential to be further improved with additional research and development.

IMAGE-BASED FOOD ANALYSIS: NUTRITION, RECIPE, AND ALLERGEN DETECTION

A Mini Project Report

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Abstract

The proposed system offers a unique approach to food recognition and information retrieval compared to other existing solutions. By utilizing advanced deep learning algorithms, it effectively identifies different food items from images with high accuracy. What sets it apart is its additional functionality that goes beyond simple classification. Alongside recognizing the food, it provides users with a wealth of detailed information related to the identified food, such as ingredients, recipes, nutrition facts, and allergens. This comprehensive package of information empowers users to make informed decisions about their food choices, explore new recipes, and cater to specific dietary requirements. The program's intuitive user interface, coupled with improved image quality, enhances the overall user experience and makes it a valuable tool for individuals interested in food analysis, culinary exploration, and health-conscious living.

Chapter 7

Conclusion

Food image recognition, calorie estimation, allergen identification, and recipe generation are all important applications of computer vision and machine learning in the food industry. By leveraging these technologies, we can create more efficient and accurate systems for identifying food items, estimating their nutritional content, detecting potential allergens, and generating recipe suggestions. These applications have the potential to improve the overall health and well-being of individuals by promoting healthier eating habits and making it easier for individuals with dietary restrictions to make informed food choices. While there are still challenges to be addressed, such as the need for larger and more diverse datasets for training machine learning models, the advancements in computer vision and machine learning continue to pave the way for a more sustainable and healthy food system.

EMOTION RECOGNITION FROM FACIAL EXPRESSION

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Abstract

Facial Expression conveys non-verbal cues, which plays an important roles in interpersonal relations. The Facial Expression Recognition system is the process of identifying the emotional state of a person. In this system captured image is compared with the trained dataset available in database and then emotional state of the image will be displayed.

Avatars are an inevitable data emerging across the last years, from marketing,digital communication in particular,to recovery of information related to sentiment analysis and viewpoint mining.Avatar helps individuals to express feelings and their identities more "authentically" by increasing the semantic quality of visual messages.

Avatars and emoticons are both examples of non-verbal communication tools. These indicators have rapidly become an important component of a wide variety of activities, including online talking, product reviews, brand emotions, and many others. It also resulted in an increase in the amount of data science research devoted to narratives driven by avatars.

In this deep learning project, we will classify human facial expressions in order to map and filter avatars that correspond. This project's goal is to make the talking world appear more vibrant.

Chapter 7

Conclusion

Emotion recognition from facial expressions is a rapidly evolving field with significant potential for real-world applications in fields like psychology, marketing, and security. Recent advancements in computer vision and machine learning techniques have enabled the development of accurate and reliable emotion recognition models that can analyze facial expressions in real-time. However, there are still some challenges to be addressed, such as ensuring the accuracy and fairness of the models across different demographics and avoiding the potential ethical issues associated with the use of facial recognition technology. Despite these challenges, the potential benefits of emotion recognition from facial expressions are immense, and it is likely that this technology will continue to be a topic of interest in the years to come.

Criminal Portrait Generation using GAN

A Mini Project Report

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Abstract

Using GAN (General Adversarial Network) for real-life portrait generation, we create a realistic image of the criminal suspect based on an eyewitness description. Criminal sketching seeks to approximate the criminal suspect's likeness using details that the observer can recall about the suspect.

But even for a skilled artist, it would take a lot of time to finish the sketch and create a quality portrait. The desire to create a lifelike representation of the criminal suspect given by an eyewitness pushes us to research forensic sketching with a generative adversarial network based architecture. In the proposed work, portrait generation is included.

The portrait is created when the facial details are finished. We employ a portrait discriminator, which can not only learn the distinguishing characteristics between the faces generated by the generator and the real faces, but also recognize the facial qualities, to enhance the realism of the portrait. This approach achieves a promising performance for criminal sketching, according to experiments.

Chapter 7

Conclusion

With a revolutionary GAN-based architecture, we made a first step towards criminal sketching in this study, enabling us to create a realistic-looking face of a criminal suspect together with a description vector. The suggested work comprises of two main processes that imitate the typical workflow of portrait painting: sketch generation and portrait generation.

We provide a portrait discriminator that can not only learn the distinguishing characteristics between faces generated by the generator and actual faces but also recognise the facial traits in order to make the portrait appear more realistic. The suggested approach for criminal sketching utilising GAN technology produces realistic facial images based on textual descriptions with encouraging results.

Given the availability of suitable datasets and hardware resources, the feasibility assessment reveals that the project is possible. In order to produce facial images that match the textual description, the GAN-based method offers greater flexibility and creativity, which can result in more accurate and thorough sketches. The necessity for additional diverse datasets to increase the accuracy of the generated sketches and the ethical issues surrounding the usage of generated images for law enforcement are still issues that need to be resolved. Our analysis confirms the usefulness and applicability, highlighting good application. The SSIM value obtained after testing is 0.76595.

32

MALAYALAM HANDWRITTEN CHARACTER RECOGNITION

A Mini Project Report

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Abstract

This study focuses on recognizing handwritten Malayalam characters using Convolutional Neural Networks (CNN) [2]. The research utilizes a dataset of handwritten malayalam characters and applying preprocessing techniques for data enhancement. The CNN model consists of convolutional and pooling layers, achieving high accuracy through extensive experiments. The proposed approach outperforms existing methods and has significant implications for document digitization, language preservation, and information retrieval [6]. Overall, this study highlights the effectiveness of CNN in recognizing handwritten Malayalam characters and contributes to advancements in the field of character recognition for the Malayalam language. The trained Convolutional Neural Network (CNN) achieved an accuracy of 97% on the task of Malayalam handwritten character recognition.

Chapter 7

Conclusion

The use of Convolutional Neural Networks (CNN) in recognizing handwritten Malayalam characters has proven to be effective. By employing a large dataset and preprocessing techniques, the CNN model achieved high accuracy in character recognition. Its architecture successfully captured the intricate patterns and variations present in Malayalam characters, overcoming the challenges posed by the language's complexity and cursive nature. This project's findings have significant implications for tasks such as document analysis, transcription, and language preservation, as it facilitates the digitization and efficient retrieval of Malayalam texts. Future research can focus on improving the model's performance and adapting it to different handwriting styles. In summary, this project highlights the potential of CNNs for recognizing handwritten Malayalam characters, offering opportunities for further advancements and practical applications.

WALKTHROUGH ATTENDANCE MARKING USING RFID AND FACE DETECTION

A Mini Project Report

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Abstract

It involves the development of a system that integrates both RFID and face detection technologies for attendance marking. The system aims to automate the process of taking attendance in various settings such as schools, universities, and workplaces.

RFID technology uses radio waves to identify and track objects or individuals through an RFID tag or a chip. On the other hand, face detection technology involves identifying and verifying the identity of an individual through facial features such as the eyes, nose, and mouth.

The system involves the use of RFID tags or chips that are attached to the identification cards of individuals. As they enter a designated area, their RFID tags are detected by the system, and their faces are then captured and compared to their registered images in the system. If there is a match, the attendance is marked automatically. science research devoted to narratives driven by avatars.

The system aims to provide a more efficient and accurate way of taking attendance, reducing the need for manual recording and human error. The use of both RFID and face detection technologies provides an added layer of security and accuracy to the process.

Overall, this system has the potential to streamline attendance marking in various settings, making it more efficient and accurate while reducing administrative workload.

Chapter 7

Conclusion

The use of face recognition technology for student attendance has the potential to automate the process of identifying students, reducing the need for manual entry and saving time while enhancing security. However, ethical concerns related to privacy and potential biases must be addressed. Privacy concerns are a significant issue, as sensitive data could be stored or shared without proper consent. Additionally, biases could arise in face recognition technology, resulting in false positives or negatives based on factors such as skin color or facial features.

Choosing between LBPH and CNN for face recognition depends on the size of the dataset and the desired accuracy level. LBPH is a simple and efficient method that works well with small datasets, while CNN requires more training data but can achieve higher accuracy. In conclusion, while face recognition technology for student attendance can bring significant benefits, it must be approached with caution and with careful consideration of ethical implications, and the choice of method for face recognition should be based on the specific needs and characteristics of the dataset.

DEEP LEARNING MODEL FOR CLASSIFYING COVID 19 AND PNEUMONIA LUNG DISEASES

A Mini Project Report

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Abstract

Around 450 million people are affected by pneumonia every year, which results in 2.5 million deaths. Coronavirus disease 2019 (Covid-19) has also affected 181 million people, which led to 3.92 million casualties. The chances of death in both of these diseases can be significantly reduced if they are diagnosed early. However, the current methods of diagnosing pneumonia (complaints+chest X-ray) and Covid-19 (real-time polymerase chain reaction) require the presence of expert radiologists and time, respectively. With the help of deep learning models, pneumonia and Covid-19 can be detected instantly from chest X-rays or computerized tomography (CT) scans. The process of diagnosing pneumonia/Covid-19 can become faster and more widespread.

In this project, we aimed to elicit, explain, and evaluate qualitatively and quantitatively all advancements in deep learning methods aimed at detecting community-acquired pneumonia, viral pneumonia, and Covid-19 from images of chest X-rays and CT scans. Being a systematic review, the focus of this project lies in explaining various deep learning model architectures, which have either been modified or created from scratch for the task at hand. For each model, this project answers the question of why the model is designed the way it is, the challenges that a particular model overcomes, and the tradeoffs that come with modifying a model to the required specifications. A grouped quantitative analysis of all models described in the project is also provided to quantify the effectiveness of different models with a similar goal. Some tradeoffs cannot be quantified and, hence, they are mentioned explicitly in the qualitative analysis, which is done throughout the project.

iii

Chapter 7

Conclusion

We have developed a CNN architecture that simultaneously evaluates the output of all the convolutional blocks to enable a more accurate and exact classification of lungrelated disorders, pneumonia, and covid-19. As a result, we have achieved an overall accuracy of 95.19% and an f1-score of 95.00% while discerning between chest x-ray images containing pneumonia and covid 19 better than other stateof-the-art approaches. Furthermore, due to being lightweight, our model can be used in remote parts of developing countries to automatically detect pneumonia and covid-19 in its early stages when there is a shortage of radiologists. In the future, Researchers can use this architecture in other medical fields where there is a need for automated analysis of image modalities.

Stegocrypt

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Abstract

Due to recent developments in stego analysis, providing security to personal contents, messages, or digital images using steganography has become difficult. This project introduces a novel steganographic approach for communication between two private parties. The approach introduced in this project makes use of both steganographic as well as cryptographic techniques since steganography/cryptography alone may not be able to protect the secret data from unauthorised access.

By combining both we get a system in which Cryptography scrambles a message in order to make the secret data incomprehensible, whereas Steganography hides the message so it cannot be seen. For Steganography we are using LSB algorithm and for Cryptography we are using AES algorithm to conceal and convert the secret message.

Chapter 7

Conclusion

In this project we have presented a new system for the combination of cryptography and Steganography using a keys which could be proven a highly secured method for data communication in near future. Steganography, especially combined with cryptography, is a powerful tool which enables people to communicate without possible eavesdroppers even knowing there is a form of communication in the first place. The secret message is hidden in the image after it is encrypted so it will be very difficult for the attacker to get the secret message in the image.

Employee Stress Detection And Productivity Measurement

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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April 2023

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Abstract

Machine learning is an application of Artificial Intelligence where we give machines access to data and let them use that data to learn for themselves.Thus the prediction of the stress and the productivity is possible using machine learning. It needs a set of datasets. The system mainly focuses on the productivity measurement. The stress is a barrier to our daily lives, especially in our work life. This is a factor that inversely affect one's productivity. Research on stress prediction was carried out conventionally in the past, but recent studies are focusing on developing non-invasive ways to predict stress with the help of wearable devices. Machine learning algorithms have been applied to various medical data-sets for early detection and analysis. The dataset includes the image dataset, the datasets which can be measured using smart watch, the dataset on the project completion time. The image dataset and smart watch dataset is used for stress prediction. The image dataset is used to detect the emotion. The smart watch dataset include heart rate variability, sleep hours, BPM. The project completion time dataset is used to measure the productivity along with the stress level. The algorithms used in this measurement are SVM and CNN.

Chapter 7

Conclusion and Future Work

Work stress is defined as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities,resources or needs of the worker.Stress is a major factor that cause the decrease in productivity.And thus it is important to measure them in order to increase the turn-over of a company.

In this situation,these kind projects comes into action where the stress is detected in scientific manner using the readings from the smart watch,facial expressions and the record of completing the works given to them.And this project emphasis on both individual and organizational needs.

Stress of the employees is predicted using inputs such as HRV,BPM, sleep hours,emotions and age.The result for the stress is predicted and the project completion time data set is used to measure the productivity.

In future work,we will focus on how to collect data from smartwatches. The system can be made in a such way to provide different stress reduction methods and exercises to the stressed employees.We can also include managers in the system to monitor the performance of the employees in the future.The system focus on a certain amount of data set values,in future it will take advantage of real time data assessment modules along with big data processing capabilities.

SmartFit-Body measurement system using Deep Learning

A Project Report

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Bachelor of Technology

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Scanned with OKEN Scanner

Abstract

Online shopping platforms have been attracting many customers since they were introduced in the last decade of the 20th century. Using online shopping platforms, customers can purchase any merchandise anywhere and anytime without the need to physically go from store to store to find a product or wait in lines to check out. Despite their advantages in comparison with in store shopping, customers often have concerns when they shop for products that require measurements estimation such as furniture and clothes. Choosing the wrong clothing size, in particular, is a common issue experienced by many online shoppers. Therefore, in this project, we proposed a model that estimates human body measurements from human real-time pictures using Human Pose Estimation and support vector machines.

Chapter 7

Conclusion and Future works

7.1 Future works

Integration of 3D Modelling: The system might use 3D modelling technology to improve the accuracy of body measurements. Improved Low-Light Accuracy: Improving the accuracy of body measurements in dimly lit areas is essential for obtaining repeatable and trustworthy findings. Body Composition Analysis: Future upgrades may offer sophisticated features for analysing body composition in addition to assessing fundamental body dimensions. To do this, the system may need to incorporate more sensors or technologies to assess things like body fat percentage, muscle mass, bone density, or water content. Real-Time Feedback and Coaching: Adding real-time feedback and coaching capabilities to the Smart Fit system is another potential improvement. User profiles and cloud connectivity could both improve Smart Fit and make it possible for consumers to access their measurement data across multiple devices and platform.

7.2 Conclusion

We proposed an approach that aims to improve and facilitate the experience of online shopping. Estimate the human body measurements from image using a smartphone.

This system was proposed to ease the relationship between tailor and client. We have assessed the usability of an easy, convenient, and accurate smartphone-based method to measure the body measurements of an individual. This application has the potential to solve the garment fitting issues with the current methods available and to provide a better alternative in the market by using a unique algorithm to obtain body measurements

Real-Time Communication Framework for the Deaf

A Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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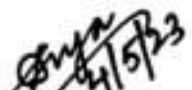
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Abstract

The REAL-TIME COMMUNICATION FRAMEWORK FOR THE DEAF project aims to address the longstanding communication gap between individuals who are deaf and those who are not. This two-way communication framework facilitates real-time communication between these two groups through the use of computer vision and natural language processing techniques.

The system is designed to detect sign language from a live video feed, which is then translated into text and displayed on the UI of the hearing person. Similarly, speech input from the hearing individual is converted to text and displayed on the UI of the deaf individual.

The framework has been developed to ensure compatibility with existing technologies and to facilitate easy integration with other systems. The user interface is designed to be intuitive and user-friendly, providing efficient and effective communication between individuals who are deaf and those who are not.

By bridging this communication gap, the project seeks to empower individuals who are deaf to participate more fully in society and to enhance their quality of life.

Conclusion and Future Work

The Real-Time Communication Framework for the Deaf project has successfully addressed the longstanding communication gap between individuals who are deaf and those who are not. By leveraging computer vision and natural language processing techniques, this two-way communication framework enables real-time communication between these two groups. The system effectively detects sign language from live video feeds and translates it into text for the hearing person, while also converting speech input from the hearing individual into text for the deaf person. The user interface has been designed to be intuitive and user-friendly, ensuring efficient and effective communication.

Through the implementation of this framework, individuals who are deaf have been empowered to participate more fully in society, enhancing their quality of life. They can now engage in real-time conversations with hearing individuals, breaking down the barriers that have traditionally impeded their communication. This technology has the potential to transform various aspects of their lives, including education, employment, social interactions, and access to information.

While the Real-Time Communication Framework for the Deaf project has made significant strides in addressing the communication gap, there are several areas for future improvement and development. Some potential avenues for future work include:

1. Enhanced Sign Language Recognition: Improving the accuracy and robustness

of sign language detection and translation is crucial. Further research and development efforts can focus on expanding the range of recognized signs and gestures, accommodating various sign language dialects and regional variations.

2. Multilingual Support: Extending the framework to support multiple spoken languages and sign languages would greatly benefit users in diverse linguistic communities. Incorporating additional language models and training data can enable more comprehensive language support.

3. Integration with Mobile Devices: Adapting the communication framework for mobile devices, such as smartphones and tablets, would increase accessibility and convenience for users. Mobile integration would allow individuals who are deaf to carry the system with them wherever they go, ensuring seamless communication in different environments.

4. User Feedback and Iterative Improvements: Collecting feedback from users, both individuals who are deaf and hearing individuals, will be invaluable for identifying areas of improvement and fine-tuning the system. User-centric design principles can guide iterative updates and enhancements to the user interface and overall user experience.

5. Accessibility Advocacy and Collaboration: Promoting awareness and advocating for the adoption of this framework in various sectors, including education, workplaces, and public services, will be crucial for maximizing its impact. Collaborating with organizations, policymakers, and stakeholders can help ensure widespread integration and accessibility for individuals who are deaf.

By focusing on these areas of future work, the Real-Time Communication Framework for the Deaf project can continue to advance the goal of inclusivity and empower individuals who are deaf to fully participate in society.

Blind Assisting System

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

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April 2023

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Abstract

Visual impairment stands out as the most limiting amongst these disabilities. The recent advancements in Assistive Technology (AT) has revolutionised the way cognitively limited users interact with the world. Assistive technology is defined as any technology that is built to help a person with disability. The advances in Artificial Intelligence is tremendous, paving the way to autonomous vehicles. We can make efficient use of these algorithms in Assistive Technology as well, to help the visually impaired ones to enhance in the field of education, navigation and also to improve social interaction.

Chapter 7

Conclusion an Future Work

The proposed system can help the blind communities to communicate with ease. This system can provide a real-time recognition utility so that it can be used anywhere. This project will be a successful endeavor in providing a platform for the blind can do their daily works. This system is exceptionally easy to understand ans even a non-specialized person can use it without any problem. Through this project, a lot of barriers can be broken and the blind community can interact with the society more easily and efficiently. This project can open up a world of possibilities for the blind to interact with the world around them, and to be part of the larger society. We hope that this project will grow and evolve and serve as an example of how technology can help empower those who have been marginalized.

The future scope of this project is overcome communication delay which may occur during real time.

Distraction Detection System - DDS

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Abstract

"The classroom shapes the future of a country" - said by APJ Abdul Kalam.The care given to students is an important factor for leading them to a better future.But as today's situation, most of the students are attending classes in a distracted manner.Most of them will be attending the sessions in dizzy manner.This is just one case.Another problem occurs in the examination halls, where most of the candidates will be performing malpractices.These two situations cannot be handled by human intellingence.So we provide an extra software hand.The **"Distraction Detection System"**.With the immense advancement of Computer Vision and Artificial Intelligence (AI), human behavior or activity detection is comparatively a new area of research.A real time video based intelligent human activity recognition system has huge potential in our human inhabited environment.For example, an automated artificial intelligence-based system can contribute significantly in case of medical treatment to identify patients with dyslexia or attention deficit hyperactivity disorder(ADHD).Similarly, in case of learning activity, both physical and virtual classroom, behavior detection system can detect the learners attention level, difficulties in interaction, collaboration among them.Based on these information teachers can change their course material and also take care of learners those need additional help.

Chapter 7

Conclusion

Human distraction analysis using computer programming and deep learning can contribute significantly to different sections of our daily life. The teachers in classroom can identify distraction among students, they can help the distracted students to understand their difficulties and help them to overcome their problems. This can also be helpful to identify different cognitive behavior related disease. Due to the importance, a number of works have been done in the development of dis-traction detection algorithms. These algorithms use visual metrics to detect visual and cognitive distractions that have the highest impact on human attention level. Several distraction detection and mitigation systems are on the market or exist as advanced prototypes and there is a growing interest from automakers, e-learning as well as medical researchers regarding the design and implementation of such distraction detection systems.

E-Learning App for KG Students

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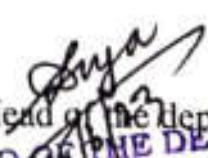
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Abstract

E-learning fulfils the thirst of knowledge and offers online content that can be delivered for the learner at anywhere, anytime and any age through a wide range of e-learning solution while compared with traditional learning system. It also provides the rapid access to specific knowledge and information. With the rapid growth of voluminous information sources and the time constraint the learning methodology has changed. Learners obtain knowledge through e-Learning systems rather than manually teaching and learning.

Designing a online learning application to improve perception of Kinder garden students. The idea is to design a online learning platform which give the kids the provision to learn things from home. It consist of voice recognition which makes learning more effective and efficient. This application includes education oriented games which makes learning interesting and easier.

Chapter 7

Conclusion

E-learning is not just a change of technology. It is part of a redefinition of how we as a species transmit knowledge, skills, and values to younger generations of workers and students. This helps people to exel in every areas and not only in education because e-learning is flexible.

With so many different ways to define e-learning and the educational approaches that can be taken in these learning environments, it is the conclusion of this author that e-learning is an innovative approach to learning. It is a holistic way of teaching and learning that meets the needs of today's digital natives. It is an environment made up of collaboration, choice, and an array of technological resources that supports a successful online learning experience. As technology advances, the way children learn is also changing. In recent years, e-learning apps have become an increasingly popular choice for parents who want to supplement their child's education. These apps offer a range of benefits, including convenience, affordability, and accessibility. In this article, we will discuss the key benefits of e-learning apps for kids and why they are a great choice for parents.

One of the biggest benefits of e-learning apps for kids is their convenience. Parents can access these apps from their smartphones, tablets, or computers, making it easy to use them on-the-go or at home. This means that children can learn whenever and wherever they want, without having to stick to a strict schedule.

E-learning apps for kids are also very affordable compared to traditional educational resources. Many apps offer a free trial period, which allows parents to test them out before making a commitment. Some apps are completely free, while others require a small fee to access premium features. This makes it easier for parents to provide their children with quality educational content without breaking the bank.

E-learning apps for kids are also very accessible, regardless of where you live. Many apps are available in multiple languages, making them a great choice for parents who speak a different language at home. Additionally, some apps are designed specifically for children with special needs, such as dyslexia or ADHD. This means that every child can benefit from these apps, regardless of their individual needs.

Another benefit of e-learning apps for kids is that they often offer engaging and interactive content. Many apps use games, quizzes, and other interactive tools to help children learn in a fun and engaging way. This can help keep children interested and motivated, making it more likely that they will retain the information they learn.

Finally, e-learning apps for kids often allow for customization. Parents can choose the level of difficulty, the subject matter, and other factors that are tailored to their child's individual needs. This means that each child can learn at their own pace and focus on the subjects that interest them the most.

In conclusion, e-learning apps for kids offer a range of benefits that make them a great choice for parents. They are convenient, affordable, and accessible, and often offer engaging content and customization options. As technology continues to advance, we can expect to see even more innovative and effective e-learning apps for kids in the future.

OS accessibility using hand gestures

A Project Report

submitted to

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Abstract

Gesture recognition is a widely discussed area of research in computer vision and pattern recognition. While significant advancements have been achieved in this field in recent years, the challenge of developing a hand gesture recognition system that is both fast and reliable continues to be a significant hurdle. Existing methods have yet to achieve a satisfactory balance between accuracy and efficiency, leaving the problem of hand gesture recognition open and in need of further exploration. Also to implement basic human machine interaction by hand gesture.

Operating systems (OS) have traditionally relied on keyboard and mouse input to interact with users. However, this can be a barrier for individuals with disabilities that prevent them from using these input devices. One solution to this problem is to use hand gestures as an alternative input method for OS accessibility.

Hand gesture recognition systems use live video streams of a user's hands to detect and recognize specific hand gestures. These gestures can then be mapped to specific commands or tasks within the OS, allowing users to interact with the system using only their hands.

There are many potential benefits to using hand gestures for OS accessibility. They can provide a more natural and intuitive way for users to interact with the system, and they do not require the use of specialized hardware or software. Hand gestures can also be easily customized to meet the specific needs of different users.

Overall, the use of hand gestures for OS accessibility can provide a more inclusive and accessible way for individuals with disabilities to interact with computer systems. The project will begin by reviewing existing research on hand gesture control and

accessibility in OSs. This will include an analysis of the current state of the art in hand gesture recognition technology and an evaluation of the benefits and limitations of using hand gestures as an input method.

Next, the project will involve the development of a prototype hand gesture control system for a specific OS. This will involve designing and implementing the gesture recognition algorithm and execute it in the OS as third-party software

Chapter 7

Conclusion And Future Work

In conclusion, the use of hand gestures for operating system (OS) accessibility can provide a more inclusive and accessible way for individuals with disabilities to interact with computer systems. By using live video streams of a user's hands to detect and recognize specific hand gestures, it is possible to control the system using only hand movements, without the need for traditional input devices such as a keyboard or mouse.

There are many potential benefits to using hand gestures for OS accessibility. They can provide a more natural and intuitive way for users to interact with the system, and they do not require the use of specialized hardware or software. Hand gestures can also be easily customized to meet the specific needs of different users.

Some potential outcomes of the project that could include in future are:

Improved accessibility for users with mobility impairments: By allowing users to control the user interface with hand gestures, the system could improve accessibility for people who have difficulty using a mouse or keyboard.

Enhanced user experience: The use of hand gestures to control the user interface could provide a more natural and intuitive way of interacting with the computer, improving the overall user experience.

Increased efficiency: By allowing users to perform tasks more quickly and efficiently using hand gestures, the system could improve productivity and reduce the time needed to complete tasks.

Greater flexibility: The cross-platform system automation tool used in the project could allow the system to be used on a variety of operating systems, providing greater flexibility for users.

Overall, the use of hand gestures for OS accessibility is a promising area of research and development, with the potential to greatly improve the accessibility and usability of computer systems for individuals with disabilities.

Web Ennumeration And Vulnerability Detection

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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May 2023

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Abstract

Today there are thousands of small and big web applications available in our world, Each web application has small and big vulnerabilities and how the user can understand how this website is vulnerable or not.If we take, web enumeration is the process of gathering information about a websit. It involves collecting information from websites to identify potential vulnerabilities. The vulnerability is the process of identifying and assessing weaknesses in a web application that could be exploited by malicious actors. Vulnerability detection, Take the list of vulnerabilities that affect the system most. If any vulnerability in this list affects our system the user can be notified. And also user can identified content of the website(File, Directories, Subdomain,IP address,Links).

Chapter 7

Conclusion

Web security is mandatory to defend hackers and cyber thieves from accessing sensitive information. Each module scans for distinctive vulnerabilities. The scanner furnishes many possibilities for security researchers and to reduce there time consuming. To detecting the bug before hackers, We are able to secure our system more efficiently.

Fund Transfer Tracking Using DLT

A Project Report

submitted to

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Abstract

Governments must handle a vast array of duties that fall under the purview of a state. The activities of state governments require numerous transactions for a variety of needs to be executed across the state. This comprises new projects, maintenance and repair work, contract awards, compensating government workers, farmer programmes, and other things. Low-level corruption, which hinders state progress and is frequently impossible to trace, is a significant challenge for the top government.

The existing system makes it exceedingly difficult to track it. Here, we suggest a clever technique for keeping track of the money given to the state government as it moves through the many stages of the political system.

Blockchain technology to safeguard transactions at every stage, maintain transaction transparency, and seal each transaction with proofs as the funds are transferred. Blockchain is a growing collection of records connected by cryptography. Each block includes transaction information, a timestamp, and a cryptographic hash of the one before it. For security, blockchain algorithms like AES for encryption and decryption are utilised. A blockchain is impervious to data alteration by design. In this study, we propose a system that uses key pair creation, metadata file decryption, and data verification methods to track government-allocated funds as they go through the government process at each stage.

This solution makes use of blockchain technology to uphold security transparency throughout the entire funding process. With the use of this system, we are able to keep an accurate record with only the people who have a need to know basis for data transactions. The system uses hash values to keep a block of transactions in a

chain-like fashion, which is maintained validated by every node involved to verify the transaction and save the data in a transparent form for use by the government. This secures transactional data. The system's full-proof, secure authentic fund allocation and fund monitoring system contribute to the formation of an impervious government process.

Chapter 7

Conclusion

The system makes use of encryption to secure transactional data using hashes to maintain a block of transactions in a chain manner which is maintained and verified by every node involved to verify the transaction and save the data in a transparent form within the government. The immutability, tamper-proof, protected, and decentralized qualities of Blockchain enable it to close the application's security weakness. Like other blockchain systems, Hyperledger Fabric has a ledger, employs smart contracts, and functions as a framework for members to control their transactional activities. It offers appropriate governance and access control and can be expanded as required. Access and privacy are taken into account when creating. The technology can give transparency in all transactions with the government with subsequent improvements. Passing the proposed system will enable the community's lower strata to better comprehend how the programs will benefit them. Also, because of the system's openness, they will be able to see every transaction that is being conducted. The authorities will confirm the legitimacy of every single coin. In this way, every rupee that belongs to the Indian people are kept in good hands, and every person has the right to inspect government finances and ask questions about them. The P2P network can store data with great strength thanks to blockchain technology. Potential hazards to any form of system modification or manipulation are eliminated by blockchain technology. People is kept in good hands, and every person has the right to inspect government

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finances and ask questions about them. The P2P network can store data with great strength thanks to blockchain technology. Potential hazards to any form of system modification or manipulation are eliminated by blockchain technology.

TRIP PLANNER- Optimized and improved system for an entire travel plan using hybrid recommender system

A Project Report

submitted to

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Abstract

The generation of tourism data has increased across the board with the expansion of the Internet, technology, and communication tools (hotels, restaurants, transportation, heritage, tourist events, activities, etc.), particularly with the growth of online travel agencies. The selection process is hindered or at least slowed down by the overwhelming number of options that modern Web search engines (or even specialist tourism sites) provide visitors, as well as the fact that important results are frequently buried behind irrelevant information. Numerous recommender systems have been developed to help travelers plan their trips and get the information they need. An overview of the many recommendation methods utilized in the tourism industry is provided in this article. Based on the findings of this study, a hybrid recommendation approach-based architecture and conceptual framework for a tourism recommender system are suggested. The suggested system goes beyond just recommending a list of sites for tourists based on their tastes. It can be compared to a trip planner that creates a thorough itinerary, taking into account a variety of tourism resources, for a set amount of time. The final objective is to create a recommender system for promoting tourism in Selected cities using big data technology, artificial intelligence, and operational research.

Chapter 7

Conclusion and Future Work

The Trip Planner application that utilizes a hybrid recommender system to suggest travel recommendations based on users' posts, likes, and comments is a promising tool for enhancing the travel experience. The application provides personalized recommendations by combining collaborative filtering and content-based filtering techniques, which have been shown to be effective in addressing the cold-start problem and providing relevant and diverse suggestions.

However, there are several areas that could be improved in future iterations of the application. These include the incorporation of more diverse data sources, such as geolocation and user profiles, to enhance recommendation accuracy and personalization. Additionally, the application could benefit from incorporating more sophisticated machine learning algorithms and natural language processing techniques to further refine the recommendations and improve the user experience.

In conclusion, the Trip Planner application that utilizes a hybrid recommender system based on posts, likes, and comments is a promising tool for enhancing the travel experience. By combining collaborative filtering and content-based filtering techniques, the application provides personalized recommendations that are both relevant and diverse. While there is room for improvement, the results of the evaluation indicate that the application performs well and has the potential to become an essential tool for travelers seeking personalized recommendations for their trips.

BLOCKCHAIN IN HEALTHCARE AND PHARMACEUTICAL SUPPLY CHAIN

A Project Report

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Abstract

Personal health records (PHRs) are valuable assets to individuals because they enable them to integrate and manage their medical data. A PHR is an electronic application through which patients can manage their health information. Giving patients control over their medical data offers an advantageous realignment of the doctor-patient dynamic. But, such PHRs are centralized and lack transparency, privacy, traceability, immutability, trust, and security features. Moreover, most of the current approaches and systems leveraged for managing PHR are centralized that not only makes medical data sharing difficult but also poses a risk of a single point of failure problem. Healthcare supply chains are complex structures spanning multiple organizational and geographical boundaries, providing the critical backbone to services vital for everyday life. The inherent complexity of such systems can introduce impurities including inaccurate information, lack of transparency and limited data provenance. Counterfeit drugs are one consequence of such limitations within existing supply chains, which has a serious adverse impact on human health and causes severe economic loss to the healthcare industry. We propose a blockchain-based system to give patients control over their data in a decentralized, immutable, transparent, traceable, trustful, and secure manner. We also propose an Ethereum blockchain-based approach for efficient product traceability in the healthcare supply chain.

Chapter 7

Conclusion And Future Work

Based on blockchain technology and the IPFS storage platform, this solution suggests a new encryption method for the safe storage and effective sharing of medical records. Additionally, the system develops a blockchain-based approach for tracking drugs. Drugs can be tracked and traced in a decentralised fashion using a Healthcare Supply Chain system. Through the usage of this method, counterfeit pharmaceuticals are kept from reaching end users. To track and trace medications in a decentralised manner, we have created a blockchain-based pharmaceutical supply chain. Blockchain technology is merged with several other entities, including IPFS, Ethereum, and smart contracts, in this system. Future patient data monetization will be possible with the system.

AUTOMATIC X-RAY REPORT GENERATOR USING DEEP LEARNING

A Project Report

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Abstract

Even with the internet providing us many information as per our command, we cannot necessarily rely on it when it comes to health. Often it is best to seek help from a medical professional in order to get proper advice on our health condition. On one such note, when it comes to fractures and injuries, we analyse X-Rays. It is a common medical imaging method. It is mainly used in examination of body parts such as bones, internal organs, soft tissues etc. This project aims to implement a website that will generate an X-ray report automatically i.e when a soft copy of the X-ray image is uploaded to the website it will generate a report showing the findings of the image provided. These reports are generated using deep learning techniques. The Convolutional Neural Network compares the target image to a large dataset of training images. We have used 13 categories of fracture dataset among which one is a 'not-fractured' set. We also included an INVALID image dataset so that the system knows which all are original x-ray images. The training was done on Tensorflow platform where the image is checked for any resemblance with one of the 13 categories. This automated project produces faster X-Ray reports that are otherwise time-consuming when done manually. It is also helpful for rural areas as the software is easier to handle and is free of cost. Radiologists with less experience would find this website helpful as it can automatically generate X-Ray reports.

Chapter 7

Conclusion and Future work

In this Deep learning project, we have built an X-Ray report generating system. Some key aspects about our project are that our model depends on the data. So more the data, better the result. A dataset consisting of 6000+ images are used here. But for production-level models i.e. higher accuracy models, we need to train the model on larger than 100,000 image datasets so that better accuracy models can be developed. Here the sequential API of Keras was used with Tensorflow as a backend to implement the deep learning architecture to achieve an accuracy of 92 percent. In the future, there is scope of expanding the project to predict the percentage of fracture. Although this is of very little use to a common man, it would be of immense help to the medical proffessionals as they can use it for better analysis of the condition. They would also find the tedious and time consuming work of generating reports remedied. That said, the website that we created does not store any personal details. It merely asks for it to prepare the report. In the coming years some medical data can be saved to provide better results and treatment to the patients. All in all the field of radiology could benefit from the development of such projects.

Wild Animal Detection Using Deep-Learning

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Abstract

In forest areas and agricultural areas, human and animal conflict is a big problem where there is a number of resources are lost. Due to this people lose their products, income, and sometimes their lives. People near forests are always in fear of these animals. So, this is to be monitored continuously to prevent the entry of animals. By monitoring the animals using CCTV we can check when they are coming to the farmland and the reason for it. Finding unusual activity in videos is known as video anomaly detection. The majority of the top video anomaly detection techniques rely on big training datasets that take a long time to learn. There are still a lot of practical video analysis tasks that cannot be quickly deployed. With the development of networking technologies, better monitoring capabilities, and storage system innovations, security cameras are becoming more and more common. By using the method of anomaly detection we can train the system to detect different wild animals.

Chapter 7

Conclusion

Technology is meant for accomplishing various tasks in our daily lives. A machine learning-based framework for detecting wild animals in a video frame is proposed. The proposed system correctly identifies wild animals in a video sequence and provides the necessary information to the forest officer. An alert message is sent to the user if a wild animal is detected in a video frame. The system is used in a forest region to safeguard nearby residents' lives and livelihoods.

Skin disease prediction using SVM

A Project Report

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Abstract

Humans frequently get illnesses and suffering from skin conditions. They may result in social shame, embarrassment, and even paralysis. In order to give the patient the optimal course of therapy, skin problems must be precisely and swiftly recognised. Recently, automated methods for diagnosing skin diseases have been developed using machine learning (ML) and artificial intelligence (AI).

In this project, Support Vector Machines (SVM) are used to forecast skin diseases. SVM is a sort of machine learning method that uses a hyperplane to categorise data points. The data points are split into two groups by this hyperplane, which is a line. The SVM method is used to determine the features that are crucial for differentiating between various skin illnesses in skin disease prediction.

In this project, the potential of Support Vector Machines (SVM) for diagnosing skin conditions is investigated. 6,000 photos from the Dermatology Image Dataset were collected for the purpose of categorising skin diseases (DID). The pertinent features from the photos were extracted using a feature extraction technique and then fed into the SVM model.

Chapter 7

Conclusion and Future Work

We have successfully applied the SVM algorithm to skin disease prediction and achieved highly accurate results. The results of our model show that SVM is a powerful tool for skin disease prediction. We believe that our model can be further improved upon by utilizing more advanced machine learning techniques such as deep learning and ensemble learning. We have also discussed the importance of skin disease prediction and how it can benefit both patients and physicians. We hope that our work can help improve the accuracy and speed of skin disease diagnosis and ultimately help improve the health of individuals all over the world.

In Future work,we would like to add an appointment page for patient in which we can take appointment of doctor if necessary.

We would also like to add a doctor log in,which will help doctor to monitor his patient online and can give necessary remedies.Doctor can also monitor patients skin disease by asking them to upload image weekly.

We will increase more image data for training to improve accuracy of this application.

VOICE ASSISTANT FOR MAIL

Project Report

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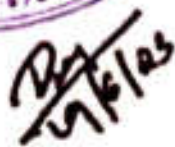
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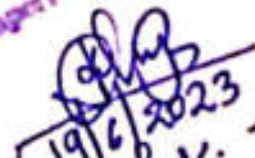
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Abstract

Communication plays a crucial role in every field in one's life. It is an integration of the communicating technologies with the help of internet. But this facility is not for blind people. The project aims to develop a voice-assistant for mail. This mobile application draws its inspiration from virtual assistants like Cortana for Windows and Siri for iOS. It has been designed to provide a user-friendly interface for carrying out a variety of tasks of mail by employing certain well-defined commands. Mobile application is linked through Gmail API to access Gmail mailboxes and send mail by retrieving Gmail credentials. With the help of voice command user can login to Gmail Users can interact with the assistant through voice commands. User gives some commands through the microphone. As assistant it can help the user to perform different actions as per the given commands. The system will be build using Google Text-to-Speech and Speech-to-Text APIs, which will make it efficient, accurate to a certain limit and user friendly.

Chapter 7

Conclusion and Future Work

Our application is user friendly, efficient and an economical system, which allows individual to interact with an Android application easily. It involves the development and implementation of a real-time email interaction system for individual also for disabled one. We have planned to develop a system that could facilitate the individuals to access email services in an efficient way.

In this system, the use of keyboard has been eliminated completely and thus reduces the cognitive load of remembering keyboard shortcuts as well as the position of the keys on a keyboard. The user only requires listening to the voice commands given by the system and respond accordingly in order to get the desired operations performed. This requires user to speak the operation in the email application and then the system will perform the required operations. The user would be requested to feed info through voice inputs whenever required and system will ensure the authentication of the user details. Here, when the user give the command to open the mail with the help of the credentials collected through Gmail API user get logged in.

Future work include providing security function that is, implement a new idea for identifying the voice of the owner of the gmail account thus making only the owner could access their own mail.

Foculize: An Innovative Attention Detection System

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Darsan Dinesh (VML19CS046)

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April 2023

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Abstract

Attention detection system is an emerging technology that utilizes computer vision techniques to monitor and analyze human attention levels. The system employs various sensors such as cameras, microphones, and eye-tracking devices to capture and interpret human behavior and provide feedback. The purpose of this system is to increase safety and efficiency in various fields such as transportation, healthcare, and education. In transportation, the system can detect drowsiness and distraction among drivers and alert them to prevent accidents. In healthcare, the system can monitor patients' attention levels during rehabilitation to ensure proper engagement in the therapy. In education, the system can detect the level of students' attention in the classroom and provide feedback to teachers to improve the learning experience. The attention detection system can be a valuable tool for enhancing human performance and safety in different environments. The ability of retention and subsequent application of a learnt topic may be influenced by the student's level of attention to the explanation of a given lecture. Consequently, those who pay attention tend to participate more actively in learning and teaching than those who don't, and as a result they are successful in acquiring the competencies outlined in the courses. It's critical to develop methods and resources that enable educators to discretely track their students' levels of attention and, as necessary, adjust the lecture's pace. In this project, we present an entirely automated system for tracking student's attention that is based on their physical features as well as their systems' technical features.

Chapter 6

Conclusion and Future work

Technology is meant for accomplishing various tasks in our daily lives. The proposed system operate by obtaining an input, altering this input through what is known as a process, and then producing an outcome that achieves the intended purpose of the system. The proposed method employs an artificial intelligence-based monitoring system for students attention detection. The system's goal is to produce warnings that show when someone loses interest in their study and alerts using an alert message. The individual can then take the necessary actions to enhance and regain focus.

In future, tab switching interface can be added to check whether the student switches between multiple tabs. Also short games and activities can be provided in the app for retaining concentration and study without loosing interest.

A Noval Driver Assistant Using MANET

A Project Report

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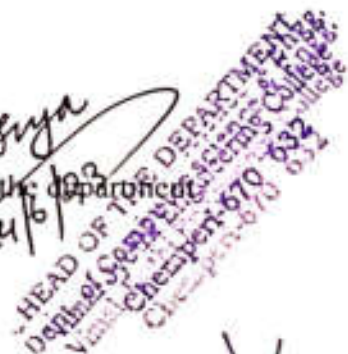
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Abstract

With the number of vehicles on the road increasing quickly, the Intelligent Transportation System (ITS), which offers applications including collision avoidance, intelligent guiding, and real-time transportation information, is anticipated to play a significant role in the future. The majority of ITS services rely on vehicle-to-vehicle connectivity and communication. Although the connectivity of such a large number of connected vehicles is a severe challenge for ITS, the dynamic mobility of vehicles can result in frequent changes in network structure. In order to address the aforementioned problem faced by dynamic vehicle communication, vehicular ad-hoc networks (VANET) were developed as a specific kind of mobile ad-hoc network (MANET). MANET is an abbreviation for Mobile Ad hoc Network. It is a self-configuring network of mobile devices that communicate with one another via wireless links without the requirement for pre-existing infrastructure like a base station or centralized server. In a MANET, each device serves as both a transmitter and a receiver, relaying data to other devices in the network. A VANET is an ad-hoc network that connects various moving cars and other connecting devices so they can communicate with one another and share relevant information. In our system, MANET is used to carry out an improved crash detection and alerting system for a safer road transportation system. Additionally, a mechanism for informing drivers whose vehicles are currently in a blind spot is implemented. In order to take the appropriate action, the system also includes a system that can display information on a person whose vehicle has been in an accident.

Chapter 7

Conclusion and Future Works

Mobile Ad Hoc Networks (MANETs) are a promising technology that seeks to enhance travel convenience, traffic flow, and safety. MANETs use wireless communication to connect infrastructure and vehicles, enabling cooperative sensing, real-time data transmission, and intelligent decision-making. Vehicles can interact with one another and with the local infrastructure, such as traffic lights, road signs, and security systems, through MANETs. This communication enables the transmission of crucial information to surrounding vehicles, such as traffic congestion, accidents, and road conditions. Drivers can then decide what to do and how to do it in order to minimize dangers and maximize their routes. Our suggested approach makes use of MANET to warn motorists in the vicinity of an accident or those in its blind spot about impending impediments. The driver will get alerts as voice notifications to ensure smooth application use and to minimize distractions. The future works for the works are :

- Safe Distance Calculation for Rear-End-Collision

  Driving too closely behind another car on the road is referred to as tailgating. It is a form of aggressive driving that can be risky since it shortens the amount of time and space a driver has to respond to any rapid changes in traffic or other drivers conduct. Rear-end crashes brought on by tailgating can be severe and even lethal. Therefore, suitable notifications are sent to the devices in order to

prevent collisions when the space between two cars is smaller than the predefined length.

- Speed Calculation To Avoid Collision in Junction

  To avoid collisions when traversing crossroads, speed estimation is essential. Drivers can estimate the amount of time needed to respond to potential risks by calculating the distance to the intersection. Furthermore, it is possible to modify speed appropriately by comprehending the junction's layout and foreseeing the route to take. Other crucial components of speed calculation include anticipating the behavior of other drivers and keeping a safe stopping distance. Drivers can considerably lower the danger of collisions near intersections by reducing speed according to road conditions and using defensive driving practices, such as scanning the surrounds and being ready for unforeseen events.

- Pedestrian Safety

  Since we used MANET to create our system, we may add pedestrians as nodes by downloading the application to the user's cellphone. Given that pedestrians can move at very low speeds, it is possible to track these nodes, classify them as pedestrians, and transmit the appropriate warnings to the vehicles regarding the movement and location of pedestrians close to the traffic. In order to take the appropriate action, pedestrians can also be informed of accidents that have happened. With the aid of our device, pedestrians can exercise caution in blind-spot areas as well.

BATTERY LIFE PREDICTION USING MACHINE LEARNING

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

Lithium-ion batteries have been widely deployed in electric vehicles (EVs) and energy storage systems of power grids due to their high energy/power density, no memory effect and long lifespan. However, with the cyclic charging and discharging operations, battery's Capacity degradation and electrical performance deterioration can influence vehicle operation performance and safety. In particular, when the battery lifetime decreases below 80 percentage of its initial value, lithium-ion batteries turn to be unstable and degrade faster than before, implying that they reach end of life (EOL), and the continued operation of batteries may lead to irreversible damage. As such, accurate diagnosis for battery health condition before a failure occurs becomes an indispensable task. In practice, a system that predict the battery life is essential to ensure operating efficacy and battery safety. Battery life prediction helps in smooth and uniform functioning of the battery-operated systems. The system predict the remaining useful life of a fresh Lithium-ion battery and displays its status to the user through a mobile application. It also displays the battery percentage during the upcoming specified time interval using LSTM machine learning algorithm so that the user will get a basic idea about the status of the battery.

Chapter 7

Conclusion and Future Work

Remaining useful life (RUL) prediction of lithium-ion batteries can reduce the risk of battery failure by predicting the end of life. Battery monitoring using Machine Learning is efficient and effective in predicting the life span of the battery. Among various neural network techniques, this system uses the LSTM since LSTM is known to outperform other methods such as deep neural network (DNN) or convolutional neural network (CNN) for battery capacity estimation. LSTM networks overcome the drawbacks of RNN like vanishing gradients problem or long-term dependence problem. LSTM based approach increases the accuracy of prediction. The RUL calculation leads to utilizing batteries without prematurely declaring the end of use.

Future work include enhanced data collection. The range of data collected from the battery can be expanded. In addition to voltage and temperature, other parameters like current, charging patterns and usage patterns can be considered to gain a better understanding of battery behaviour. Also a system that provides real-time alerts and notifications to users when critical battery conditions are detected can be implemented.

Automatic Traffic Light Control System using Artificial Intelligence and Image Processing

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

Traffic congestion or commonly referred as traffic jam is one of the biggest and fastest growing problem for all big cities around the globe. In recent years, both the population and the number of vehicles on the roadways have grown significantly. A substantial portion of working hours is getting wasted on the roads because of traffic congestion, which imposes the negative effect on the overall economy. An urgent solution should immediately be adapted in order to reduce traffic congestion.

To effectively regulate vehicular dynamics and ensure smooth traffic flow despite high traffic density and limited infrastructure, it is crucial to deploy an intelligent and dynamic traffic light control system. Because of the promise of the technology involved, the use of Intelligent Transportation System (ITS) has raised expectations for society and the individual traveller.

Chapter 7

Conclusion

Based on the results of our project, it can be concluded that implementing machine learning and image processing techniques in traffic signal light control can significantly improve traffic flow efficiency and reduce waiting times for drivers and pedestrians. By analyzing real-time traffic data from cameras, the system can accurately predict traffic patterns and adjust signal timings accordingly. Additionally, the project demonstrates the potential for using computer vision algorithms to detect and track vehicles and pedestrians, which can enhance the system's accuracy in predicting traffic behavior and identifying potential safety hazards. Overall, the use of machine learning and image processing in traffic signal control has the potential to revolutionize urban transportation by improving traffic flow and reducing congestion, leading to safer and more efficient roads.

HUMAN EMOTION DETECTOR

A Project Report

submitted to

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Abstract

Historically, research on emotion perception has focused on facial expressions, and findings from this modality have come to dominate our thinking about other modalities. Here, we examine emotion perception through a wider lens by comparing facial with vocal and hearbeat rate. Reading and understanding human emotions is an integral part of the human civilisation. Women are supposed to be better than men at detecting emotions, especially fear and disgust. As emotional state of a person may influence concentration, task solving and decision making skills, affective computing vision is to make systems able to recognize and influence human emotions in order to enhance productivity and effectiveness of working with computers. A human can deal with any other human if the former can learn from the latter's emotions carefully. Sometimes, humans hide their emotions from others, so in some serious cases they even have to be put under lie-detection tests. Close tracking of Internet activities (comments, likes, tags, recommendations, photos and videos), content of their social networks and online interactions with other users together enable understanding of their personalities and behaviour.

Chapter 7

Conclusion

Emotion detection has become one of the most important aspects to consider in any project related to Affective Computing. Due to the almost endless applications of this new discipline, the development of emotion detection technologies has brought up as a quite profitable opportunity in the corporate sector. Many start-up enterprises have emerged in the last years, dedicated almost exclusively to a specific type of emotion detection technology. A thorough review of current technologies to detect human emotions are evaluated. To this end, the different sources from which emotions can be read, along with existing technologies developed to recognize them, are explored. This technology can be applied to fields like security, biometrics, law enforcement, etc., for tracking and surveillance purposes. Emotion recognition has wide scope in many areas such as human computer interaction, biometric security etc. The emotion analytics software analyzes a person's facial expression. It records their mood, attitude and emotional personality by analyzing the data collected on their verbal as well as non-verbal communications. With ongoing research and development, the human emotion detector using face expression and voice holds promise in transforming the way we understand and respond to human emotions, ultimately leading to a more empathetic and connected society.

Optimizing Redeployment of Medical Supplies Among Hospitals

A Project Report

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in partial fulfilment of the requirements for the degree of

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Abstract

The statement "the greatest threat to humankind is not missiles but microbes" resonates strongly in the wake of the COVID-19 pandemic, which has demonstrated the immense impact that infectious diseases can have on society. The global response to the pandemic has revealed the unpreparedness and lack of planning within medical institutions for effectively managing health crises. It has become evident that we must prioritize preparedness and readiness, starting at the local hospital level, to effectively handle future epidemics.

A crucial aspect of crisis management lies in the optimal redistribution of medicinal supplies, including perishable vaccines and medicines. During pandemics and epidemics, the availability and timely distribution of these supplies become critical in combating the spread of diseases and minimizing their impact. Unfortunately, hospitals and clinics often face challenges such as stock-outs and insufficient supplies, especially during periods of high demand or viral outbreaks. Relying solely on supply from manufacturers can be time-consuming and uncertain, considering transportation constraints and supply chain disruptions.

Furthermore, financially backward clinics and hospitals, particularly those serving under-served communities, face additional hurdles. These facilities may lack staff, and adequate storage infrastructure for specialized medicines, also financially backward clinics and hospitals often struggle with tracking and managing constraints associated with medical supplies. This includes monitoring expiry dates, tracking lot numbers, ensuring proper handling and storage conditions, and complying with specific requirements for certain medications.

Chapter 7

Conclusion And Future Works

In conclusion, the system developed for optimizing the redistribution of medical supplies through collaboration among neighboring hospitals provides valuable contributions in assisting medical institutions during regular working and crisis situations alike. By implementing this system, hospitals can enhance their resource management, reduce casualties, and promote social welfare and well-being among the people involved.

One of the significant advantages of this system is its ability to reduce potential medical waste generated due to unorganized and unplanned actions, as well as human errors. Through efficient redistribution of surplus supplies, hospitals can prevent unnecessary loss while ensuring a better and more organized approach to resource management, particularly in times of crisis. This not only benefits individual hospitals but also contributes to the overall effectiveness and resilience of the healthcare system.

Looking ahead, there are exciting opportunities to further enhance this project by integrating machine learning techniques. Machine learning can play a crucial role in analyzing and predicting supply and demand patterns, optimizing resource allocation, and identifying potential shortages or surpluses in real time. By harnessing the power of machine learning algorithms, the system can become even more intelligent, adaptable, and proactive in addressing healthcare challenges.

The future scope of this project includes developing sophisticated algorithms

that can learn from historical data, analyze trends, and make accurate predictions about future supply and demand dynamics. These algorithms can help hospitals make informed decisions regarding resource redistribution, ensuring that supplies are allocated where they are most needed and reducing the likelihood of shortages or wastage.

Furthermore, integrating machine learning can enable the system to continuously adapt and optimize its operations based on feedback and changing circumstances. It can learn from past experiences and adjust its strategies to improve efficiency and effectiveness over time. This adaptive approach would further enhance collaboration among hospitals, fostering a culture of shared resources and collective resilience within the healthcare system.

In conclusion, the optimization of medical supply redistribution through collaboration among neighboring hospitals presents a viable solution to address the challenges of resource management in healthcare. By sharing and redistributing surplus supplies, hospitals can ensure a more equitable distribution of resources, minimize waste, and effectively address shortages in areas where they are most needed. The integration of machine learning holds immense potential for the future of this project, enabling intelligent decision-making and further enhancing the overall effectiveness and efficiency of healthcare resource management.

Smart Image Privacy Control in Online Social Network

A Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

Photo sharing is an attractive feature which popularizes Online Social Networks (OSNs). Unfortunately, it may leak user's privacy if they are allowed to post, comment, and tag a photo freely. We attempt to address this issue and study the scenario when a user shares a photo containing individuals other than himself/herself (termed co-photo for short). To prevent possible privacy leakage of a photo, we design a mechanism to enable each individual in a photo be aware of the posting activity and participate in the decision making on the photo posting. For this purpose, we need an efficient facial recognition (FR) system that can recognize everyone in the photo. Our mechanism attempts to utilize user's Registration image to use in the FR system specifically trained to identify every possible face of the user in others posts without leaking their privacy. Our mechanism is implemented as a proof of concept Android application on online social network application.

Chapter 6

Conclusion and Future work

6.1 Conclusion

The successful implementation of the Smart Privacy Control System on Online Social Network is a significant milestone in ensuring user privacy and security. The privacy module keeps track of all the posts and instantly identifies faces as soon as a post is posted on the platform. This feature allows users to have control over their images and personal data, and it ensures that no user's image is used without their explicit consent.

The notification feature of the system ensures that users whose faces are identified in a post are notified. The photo is posted in a masked form, and users are required to accept the posting request before their face is unmasked from the post. This feature adds an additional layer of security to the system, and it ensures that users have complete control over how their image is used on the platform.

The system also includes other privacy features like anti-screenshot, facial identity authentication, and live capture registration. The anti-screenshot feature prevents other users from taking screenshots of posts and images, which helps to reduce the risk of unauthorized sharing of personal data and images. The facial identity authentication feature ensures that only authenticated users can access the platform and ensures that users' personal data is protected.

The live capture registration feature ensures that users' images are collected in

real-time during the registration process, which helps to ensure that the images are up-to-date and accurate. This feature also ensures that users have control over how their personal data is collected and used on the platform.

6.2 Future Work

The Smart Privacy Control System on Online Social Network can be improved in several ways to enhance user privacy and security. One of the primary ways to improve the system is by hosting it online so that more people can download and use it easily and faster. This can be achieved by developing a web-based application that can be accessed by users on different devices.

Another way to improve the system is by implementing it on other social media applications. This will help to improve the privacy and security of these platforms, and it will enable more users to benefit from the Smart Privacy Control System's features.

Integrating blockchain technology is another potential improvement that can be made to the system. A decentralized social media platform can provide users with complete control over their data, ensuring that their data is protected from data breaches and hacks. This can be achieved by creating a blockchain-based platform that stores user data on a distributed ledger, ensuring that no single entity has control over the data.

Incorporating biometric authentication methods such as facial recognition and fingerprint scanning can also increase security and prevent unauthorized access to user accounts. This will ensure that only authenticated users can access the platform, and it will provide an additional layer of security to prevent account hijacking and other forms of unauthorized access.

PC CONTROL USING VOICE RECOGNITION

A Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

A voice-controlled PC is a computer system that can be operated entirely through voice commands. This technology has gained popularity due to its convenience and ease of use.

The voice-controlled PC uses a speech recognition system that processes the user's voice and translates it into commands that the computer can understand. These commands can be used to perform a wide range of tasks, such as opening applications, browsing the web, sending emails, or even controlling home automation devices.

To ensure accuracy, the speech recognition system relies on complex algorithms and machine learning techniques to recognize and interpret different speech patterns and accents. The system also utilizes natural language processing (NLP) technology to understand the context and intent behind the user's commands, allowing for more intuitive interactions.

Despite the many benefits of voice-controlled PCs, there are still some challenges that need to be addressed. These include issues with accuracy, speed and compatibility with different software applications. However, as technology continues to advance it is likely that these challenges will be overcome making voice-controlled PCs a more integral part of our daily lives.

Chapter 7

Conclusion and Future Work

Voice-controlled PCs have become increasingly popular in recent years.One of the key benefits of voice-controlled PCs is that they allow for hands-free control, which is particularly useful in situations where users are unable to use their hands. This can help to increase productivity and efficiency, as users can perform tasks while multitasking or focusing on other activities.

One of the main challenges is accuracy, as speech recognition technology is not always able to accurately interpret users' commands, particularly in noisy environments or with accents or dialects that are not recognized.

Despite these limitations, the future of voice-controlled PCs looks promising, as advances in technology continue to improve accuracy, privacy, and functionality. As more users embrace voice control as a natural and intuitive way to interact with their computers, voice-controlled PCs are likely to become an increasingly common feature in homes and workplaces, helping to make computing more accessible and efficient for everyone.

In the rapidly evolving world of artificial intelligence and machine learning, there is always a demand for models that are more efficient and effective. One way to achieve this is by training the model using larger datasets. By feeding the model with a more diverse and extensive set of data, it can be fine-tuned to recognize patterns and make more accurate predictions.

CAMPUS NAVIGATION USING AUGMENTED REALITY

A Project Report

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Abstract

In the coming years, an artificially facilitated world will dominate, and Augmented Reality will have a crucial part to play in shaping it. This research investigates the utilization of augmented reality technology on smartphones for indoor navigation purposes. Our goal is to develop an Augmented Reality-based campus navigation system to assist individuals who may be unfamiliar with the campus layout. To determine one's location precisely, and then formulate a route and subsequently adhere to it, is the process or undertaking being referred to. The realm of navigation encompasses various branches, such as terrestrial navigation, nautical navigation, aviation navigation, and astrogation. The primary objective of this tool is to assist with finding one's way around the campus. Most individuals struggle with exploring unfamiliar territories or discovering new places on their own. Hence the application system will serve as a helper to them and lead in navigation through the campus, as we have selected the college campus area for our study. We currently working at developing a system that shall enable a new person to explore unknown campus areas which he is unfamiliar with. Furthermore, the proposed project may be extended at a larger scale and we can set a large number of data as a trained data in the database.

Chapter 7

Conclusion

AR-based navigation systems have the potential to improve existing navigation systems by augmenting information onto the real-world object.Our project can successfully help navigate a user in a given space without any additional resources like external hardware. Real-time mapping can effortlessly make the visitors reach any location inside the facility within a stipulated time. Also, this feature affects the productivity of the facility in the long run, having real-time information on our Smartphone screen.

AR is a promising technology which the implementation of it in the development of a navigation system has shown to improve the user's experience based on the feedback received.It is important to note that the use of AR in navigation is highly dependent on advances in the field of augmented reali-ty. Also, the acceptance for AR navigation will depend on the better user experience. It will be interesting to see how this technology develops in the future.

There are several possible future enhancements for campus navigation systems that could improve their functionality and user experience. Here are a few potential ideas:

1. Integration with AI voice assistants: Integrating the campus navigation system with AI voice assistants like Siri or Google Assistant would allow users to receive real-time voice prompts and directions, without needing to look at their device's screen. This could make the navigation experience more hands-free and

convenient.

2. Integration with wearables: Integrating the navigation system with wearable devices like smartwatches or augmented reality glasses could allow users to receive navigation prompts and information directly on their wearable device, without needing to look at their smartphone.

3. Indoor positioning system: Implementing an indoor positioning system that utilizes Wi-Fi or Bluetooth signals to accurately determine a user's location within a building could improve the accuracy of the navigation system, particularly in areas where GPS signals are weak or unavailable.

4. Integration with social media: Integrating the navigation system with social media platforms like Facebook or Twitter could allow users to share their location and real-time updates with friends and colleagues, making it easier to coordinate and meet up with others on campus.

5. Personalized recommendations: Implementing a personalized recommendation system that uses machine learning algorithms to analyze a user's preferences and behaviors could provide customized recommendations for nearby restaurants, cafes, or other points of interest based on their individual interests and preferences.

Overall, there are many potential future enhancements for campus navigation systems that could improve their functionality, accuracy, and user experience, making it easier and more convenient for users to navigate and explore campus environments.

Machine Learning to Identify Conscious Mental Behaviors of acutely disturbed state of mind for Patients

A Project Report

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Abstract

Each individual is dealing with different issues one of the common issues is depression or stress which may eventually lead to death or other brutal activities etc. For this research, data has been collected from working people which comprises of all kinds of questions for despondent detection. Dataset has been run through some machine learning algorithms. **Random Forest algorithm** gives the highest accuracy as **87.02%** compared to the other algorithms. During the pilot study, we collected 560 cases that included 33 clinical variables and the survey items from the short confusion assessment method , and developed a web-based application. We have confirmed that acute consciousness in assessment is closely associated with different predictors for screening three psychomotor behaviors of delirium: 1) education level, dementia type or its level, sleep disorder, dehydration, and infection in mixed-type delirium; 2) gender, education level, dementia type, dehydration, bedsores, and foley catheter in hyperactive delirium; and 3) pain, sleep disorder, and haloperidol use in hypoactive delirium.

Chapter 7

Conclusion

Delirium is a serious medical condition that can have significant physical, psychological, and social consequences. Early identification and prompt treatment can improve outcomes for affected individuals. There are various methods which are utilized for detection of mental illness among individuals of various ages. The method utilized by these systems utilizes the method of detection via analyzing the mental issue detection through the set of questionnaires, in order to anticipate the downturn levels among various age groups. We utilized SVM, Decision Tree and Random woodland for learning and detection. The experimental outcomes demonstrated that the Random Forest achieves the most elevated accuracy around 87%.

ACCIDENT DETECTION FROM CCTV AND EMERGENCY SUPPORT

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Abstract

An automatic accident detection system process that initiates itself and alerts the emergency squad whenever an accident occurs and also provides the live location of the vehicle. In our project we are using YOLO algorithm for detecting accident and provide emergency support. There is high number of reported accident deaths due to lack of proper emergency. So by implementing these automatic detection system we can minimize the death rates to a considerable level. In this study, we look at the issue of automatically identifying and analysing traffic accidents with the help of YOLO V3 algorithm which can detect objects. It gives all the specific objects in the frame. Then with the help of overlapped area obtained from these vehicles, we can find whether accident occurred or not. This system not only helps in detecting the accidents, but also can provide real time emergency support.

Chapter 7

Conclusion and Future Work

The proposed accident detection system is designed to examine the whole traffic video and detect accidents from it. It provides emergency support to people who met with accidents and thus, reduces the death rate by providing immediate assistance. This system is exceptionally easy to understand and even a non-specialized person can use it without any problem. Notably, the proposed system is low cost, secure and simple to use. It can detect all kinds of accidents and its timely medical aid can help in saving lives. It is expected that the system will reduce the death rate due to accidents. The system is expected to be a rescuer of life for the people who met with accidents. In conclusion, the accident detection system is a great way to provide assistance and relief to people who met with accidents. It is an efficient way to save lives by providing timely medical aid. The system is reliable, cost-effective, secure and easy to use. It is expected that the system will be a great help in saving lives and reducing casualty due to accidents.

In Future,we can make a hardware using raspberry pi and install all the developed python code into it.Then the system will become AI camera to detect Accidents.

Security Automation Using Cloud Native Architecture

A Project Report

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Abstract

Security automation is the use of technology that performs tasks with reduced human assistance in order to integrate security processes, applications and infrastructure. By automating security operations, we reduce the need for human assistance and increase security system's efficiency, which ultimately reduces the chaos caused by human errors. As digital transformation advances, the threats to security are growing at a startling rate. Manual security monitoring can be time-consuming and depends on workforce availability. On the other hand, automated security systems enable rapid incident response, helping us to tackle cyber attacks right away. This project aims to design a scalable and asynchronous framework using cloud native architecture for automating black box testing of cloud native applications. The project intends to design a cloud native workflow to automate the whole procedure, performing multiple scans using multiple tools on multiple targets. It identifies potential security vulnerabilities that can cause organizations to suffer massive data theft and service interruptions. This project is a DevOps application. It uses the DevOps tools such as Docker, Kubernetes, Terraform, Github Actions and RabbitMQ in order to build the security automation workflow.

Chapter 7

Conclusion

Security automation provides a variety of benefits to the organization by allowing security teams to scale to manage growing workloads. Threat detection can be done faster by using security automation, without manually checking it. This means that many vulnerabilities could be detected immediately by the security system. Enabling automation is a critical component of every organization that wishes to address the speed and scale of modern cyber attack. Without orchestrated automated response via security tools, it is often not possible to respond to cyber threat intelligence in a timeframe that enables network defense. This project makes use of DevOps stages to automate security operations when a developer from an organization modifies existing code or pushes a new code to the testing environment. This project helps the organization to automatically check for vulnerabilities in a code by conducting black box testing and informs them of the same. This application has been developed using highly efficient and industry-relevant technologies.

Indian Sign Language Translation Software

A Project Report

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Abstract

Sign Language (SL), also known as gesture-based language, is used by people with hearing loss to convey their messages. Sign language serves as a beneficial tool for daily interaction for the deaf-mute community, it is not commonly used by the hearing community. Thus, there is a lack of social interaction and communication between hearing impaired and others. Sign Language interpreters are required for people who do not have the knowledge for this form of communication, but interpreters are not readily available. Thus, a machine-based translation system is required to translate the text into SL. We propose a system that translates the input audio into Indian Sign Language using speech recognition algorithm. The process consists of translating the audio input to text and further to 3D avatar animation that generates sign language according to Indian Sign Language grammar.

Chapter 7

Conclusion and Future Work

The application of online speech recognition technology for everyday use would improve the accuracy of the technology for everyone who speaks the same language. This technology turns speech input into text format, which is then used by the system for further processing. Rather than using humanoid videos or pre-stored pictures, the system outputs a 3D avatar animation in real time for the representation of the sentence or word in Indian Sign Language (ISL).

This system poses an advantage for the hearing impaired people, who can communicate with any age group or with people who may not have much knowledge about sign language. It not only ensures the accuracy of communication but also helps the hearing impaired people to gain confidence in their communication with the hearing people. With this application, people with hearing impairment can communicate with people in any language, be it their native language or any other language.

The application of online speech recognition technology also eliminates the need for interpreters in many cases. This is especially beneficial for those who are not comfortable or not familiar with the sign language. Moreover, it eliminates the need to learn a new language, as people can communicate in their native language. The technology is also useful for those who want to learn sign language, as it helps them to practice and improve their sign language skills.

One of the significant areas where the technology can be used is in educational settings, such as classrooms and lecture halls, to support the learning process of hearing-impaired individuals. With the assistance of this technology, the hearing-impaired individuals can access the same educational content as their hearing peers and participate in classroom discussions, thus facilitating inclusive learning environments. The technology can also be useful in medical settings, such as hospitals, where communication between physicians and hearing-impaired patients can be challenging. With this technology, the patients can communicate their medical needs and concerns effectively to their physicians, which would improve the quality of healthcare for the hearing-impaired community. Furthermore, the technology has the potential to assist hearing-impaired people in their everyday lives, such as in shopping malls, restaurants, and other public places. The technology can help them communicate with others without the need for a sign language interpreter, which would provide them with greater independence and autonomy in their daily activities.

The application of online speech recognition technology can also be used to improve the communication between people with hearing impairments and their families or friends. This would enable them to share their experiences and feelings and develop a better understanding of each other. In addition, it can help them to have meaningful conversations and build strong bonds.

In general, the application of online speech recognition technology is a great step towards bridging the communication gap between the hearing and hearing impaired people. It not only provides the hearing impaired people with an easier way to communicate, but also gives them the opportunity to interact with people from different backgrounds. As the technology continues to evolve, it will only become more accessible and easier to use, leading to improved communication between the hearing and hearing impaired people.

The project has the potential for further improvement in the future, and one of the ways to enhance its capabilities is by expanding the domain of the application. This could be achieved by adding more animation clips, which would not only improve the accuracy and comprehensiveness of the program but also make it more appealing to

users.

Given the vastness of the English language and its extensive vocabulary, adding more words to the program could significantly enhance its effectiveness in interpreting and translating sign language accurately. This expansion of the vocabulary can be achieved through integrating machine learning algorithms to capture a wider range of words and phrases.

Additionally, the program's compatibility can be improved by making it available on various platforms and operating systems, such as Linux, Android, and others. This would increase the accessibility of the application and allow more people to benefit from its capabilities, regardless of their device or operating system.

CROP MONITORING AND MATURITY DETECTION APP FOR PLANTATION CROPS USING DEEP LEARNING

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DEPT. OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the report entitled **CROP MONITORING AND MATU-RITY DETECTION APP FOR PLANTATION CROPS USING DEEP LEARN-ING** submitted by **FAEZ MUHAMMED M** (VML19CS057), **MANU MATHEW JISS** (VML19CS070), **NIHAL V GEORGE** (VML19CS076) & **SHAHAN ABDULLA K** (VML19CS092) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

Crop monitoring and maturity detection is an important process for ensuring quality and successful yield of plantation crops. It is achieved through the use of various technologies and systems such as the Global Positioning System (GPS), remote sensing, image processing, machine learning and Artificial Intelligence (AI). However, the accurate detection of crop maturity has remained a challenge due to the complexity and heterogeneous nature of plantation crops. Deep learning has emerged as a powerful tool for tackling these issues, and has been successfully applied to other areas of agriculture such as soil moisture estimation, disease detection and forecasting.

This paper presents a crop monitoring and maturity detection application for plantation crops using deep learning. The application uses neural networks to analyze images of plantation crops collected by drones, and to detect their maturity. The application is composed of two main components; a pre-processing module and a deep learning classification module. The pre-processing module is used to extract relevant features from the images, while the classification module uses a convolutional neural network (CNN) architecture to classify the images into different maturity stages. The results show that the application can accurately detect crop maturity with an accuracy of over 86%.

The application offers several advantages over existing crop monitoring and maturity detection systems. First, the application is easy to use and requires minimal technical expertise. Second, the application is cost-effective compared to existing methods which require expensive hardware and software.

Chapter 7

Conclusion and Future work

The CROP MONITORING AND MATURITY DETECTION APP FOR PLANTA-TION CROPS is an innovative and highly useful tool for agriculture. It can be used to monitor the growth and maturity of crops, as well as to detect diseases, pests, and other threats. Deep learning algorithms are used to analyze images of crops to detect their growth and maturity, as well as to identify any potential health problems. The app is easy to use and provides farmers with real-time updates on crop health and maturity.

The app is beneficial to farmers in several ways. First, it helps them to keep track of the growth of their crops and monitor their maturity. This information can be used to decide when to harvest the crops, as well as to identify potential health problems before they become too serious. Second, the app can identify potential threats to crops, such as pests and diseases, and alert the farmer to take necessary measures to protect the crops. Third, the app can be used to analyze various environmental factors that can affect crop growth and maturity, such as temperature, humidity, and soil conditions.

Overall, the CROP MONITORING AND MATURITY DETECTION APP FOR PLANTATION CROPS is an innovative and highly useful tool for the agricultural industry. It can be used to monitor the growth and maturity of crops, as well as to detect diseases, pests, and other threats. It is easy to use and provides farmers with real-time updates on crop health and maturity.

VEGETABLE VENDING WEBSITE FOR VENDORS

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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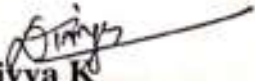JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
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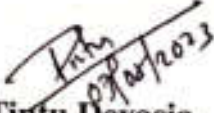AFFILIATED TO KTU • APPROVED BY AICTE
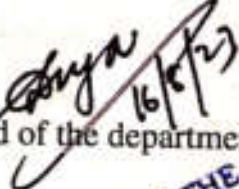
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Abstract

VeggieFinder is an innovative online platform designed to connect vegetable vendors and customers, streamlining the process of locating vendors and sharing vending areas. This website acts as a centralized hub, facilitating seamless communication between vendors and users, resulting in efficient vegetable purchasing experiences.

For vendors, VeggieFinder provides a unique opportunity to share their vending areas and attract potential customers. Vendors can create profiles, vendors can specify their available vending areas, such as farmers' markets, street stalls, or community events, and provide the corresponding dates and times. This feature enables vendors to maximize their exposure and reach a wider customer base.

On the user side, VeggieFinder empowers individuals seeking high-quality vegetables by simplifying the process of locating nearby vendors. Users can access the website and search for vendors based on their current location or specific preferences.

By connecting vegetable vendors and customers, VeggieFinder not only benefits local businesses but also promotes sustainable farming practices and encourages healthy eating habits within communities. With its comprehensive vendor profiles, location-based search capabilities, and user-driven feedback system, VeggieFinder revolutionizes the way users discover and engage with vegetable vendors, fostering a more connected and sustainable food ecosystem.

Chapter 7

Conclusion

Vegetable vending website was created to identify the location of the vendors. Finding the location of the vendors is the problem faced by the customers these days. The website will find the location of the vendors. Here the vendors will upload their location after registering so that the user's after registering can give their district, city and from that they can find the nearest location of the vendors. This website also provides the vending area which is also useful to the vendors. If this website is developed to an advanced version then it can help in increased economic growth of our country.

SELF-CHECKOUT SYSTEM IN SHOPS

A Mini Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Scanned with OKEN Scanner

Abstract

Self-checkout systems have become increasingly popular in retail stores as a means of enhancing the shopping experience for customers. These systems allow customers to scan the barcodes of items they wish to purchase, and then pay for them without the need for interaction with a cashier. This not only reduces waiting times for customers, but also provides cost savings for retailers by reducing staffing requirements. However, the effectiveness of self-checkout systems is heavily dependent on the reliability and accuracy of barcode scanning technology, as well as the usability and convenience of the overall system design. In this abstract, we explore the benefits and challenges of self-checkout systems that rely on barcode scanning, and examine the potential for future advancements in this technology to further enhance the shopping experience for customers. The technologies used here include Node.js, AWS, Flutter and MongoDB.

Chapter 7

Conclusion

The self check-out system aims to provide a more efficient and convenient way for shoppers to purchase their items. It offers various advantages, such as reduced waiting duration, enhanced customer satisfaction, and lower labor costs for retailers. This project can be further implemented using hardware through the introduction of an idea called SMART BASKET IN SUPERMARKETS.

DOMOTICS FOR ELDERLY AND DISABLED PEOPLE

A Mini Project Report

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

Automation is a critical requirement in today's environment. Human-machine interfaces are changing all the time.Our topic is Domotics,a smart automation for elderly and disabled people.The usage and control of home equipment remotely or automatically is known as home automation. By offering oral or remote-based home automation system, this proposed project work aims to lessen the difficulties of differently able persons, who can focus on their health rather to worrying about whether the house appliances are still on or where the switches for those items are located.Within this category,the user can control the system using a remote or oral instructions and this can be implemented by using arduino module.Domotics not only can control home applications but has certain features like automatic water tank refill method based on fixed time to maintain the water level in the tank,various levels of intensity of light is provided and eye protection system to reduce the intensity of light during morning,an automatic recovery system for the elderly and disabled people is implemented by analyzing their pulse rate,and the installation of this domotics system makes their work simple and ease of living

Chapter 7

Conclusion

The home automation using Internet of Things has been experimentally proven to work satisfactorily by connecting simple home appliances to it and the appliances were successfully controlled.Home attributes like light,fan has been developed and was able to control in a very efficient manner.Automatic water tank reflling system made our project much more effective - It fills water automatically when the water goes below a certain rate and stops filling at its maximum point. Along with home automation we provide health security using heartbeat sensor,which sent message to the consulting doctor when heartbeat become abnormal and this security is done using gsm module

GAS LEAKAGE DETECTION, PREVENTION AND WINDOW OPENING SYSTEM

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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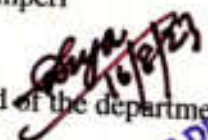## DEPT. OF COMPUTER SCIENCE AND ENGINEERING
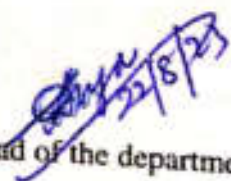
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Abstract

This project proposes a system for detecting gas leakage, preventing accidents, and automatically opening windows to ensure proper ventilation using IoT technology. The system consists of gas sensors, a microcontroller, a wireless communication module, and a motor control circuit. The gas sensors detect the presence of harmful gases, such as carbon monoxide and methane, and send the data to the microcontroller.

The microcontroller processes the data and sends alerts to the user through a buzzer, as well as triggers the motor control circuit to open windows. Additionally, the system can be programmed to turn off gas valves and cut off supply in case of a severe gas leakage.

The proposed system offers several advantages over traditional gas detection and prevention systems, such as real-time monitoring and energy efficiency. The use of IoT technology allows for easy integration with other smart home systems and can enhance the overall safety and comfort of the living environment.

In conclusion, the Gas Leakage Detection, Prevention, and Window Opening System using IoT is a promising solution for preventing gas accidents and ensuring proper ventilation in households and other indoor spaces.

INDOOR SHOPPING MALL NAVIGATION

A Mini Project Report

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Abstract

This project report presents a indoor navigation system using deep learning. It uses convolutional neural network technology to detect exact position of user . This project contributes to indoor mapping which helps user to easily find the shortest distance to destination which helps to save time and increase customer loyality.

Evacuating a large shopping center can be challenging. Making sure customers can quickly leave the building safely and orderly is what matters most, but this can be a big issue for large facilities. A quality indoor positioning and wayfinding system can go a long way toward ensuring customer safety in an emergency situation.

Chapter 7

Conclusion

The report is based on the final review of the project "INDOOR NAVIGATION OF A SHOPPING MALL". The project satisfies the problem which is stated in the problem definition section. This system provides an interior map of shopping complex. It helps in step by step navigation inside shopping mall building routes to the necessary places on digital map. The system would be very useful if implemented in large malls as it would be easier to find the way and save time. Overall this system helps in improving digital experience of user and helps to find their destination easily without wasting time.

A MEDICAL CHAT-BOT APPLICATION FOR

HEALTH DIAGNOSIS

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

This project report presents a medical chatbot for disease prediction using machine learning. The chatbot utilizes a supervised learning algorithm and natural language processing techniques to provide patients with assessment of their symptoms. The performance of the chatbot is evaluated using various metrics, and the results demonstrate its accuracy in predicting the likelihood of a particular disease. This project contributes to the growing body of research on medical chatbots and machine learning-based disease prediction, with the potential to revolutionize healthcare by enabling early diagnosis and treatment.

Chapter 7

Conclusion

The report is based on the final review of the project 'A MEDICAL CHAT-BOT APPLICATION FOR HEALTH DIAGNOSIS.' The project successfully addresses the problem stated in the problem definition section. The project achieved an accuracy rate of 74.4%, demonstrating its effectiveness in disease diagnosis. In conclusion, the medical chatbot application enables users to be aware of and diagnose various diseases based on their symptoms and provides them with reliable medical information. With this system, we hope to raise awareness about various diseases and thereby bring a significant impact in improving the overall health and well-being of individuals.

ROAD DAMAGE DETECTION

A Mini Project Report

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Abstract

Cracks on roads have been a primary reason for road disasters and damage to the vehicles. Currently due to heavy rains and poor structure roads surface have flaws. Detecting the cracks manually is time consuming and will not be detecting the flaw impeccably. The proposed system aim is to recognize cracks on muddy roads and high way roads pictures in order to avoid disasters and damage to the vehicles. Deep learning algorithms are used to classify image dataset in order to determine whether the roads are plain or have cracks. Images are collected from internet sources.

The model was established by conducting variable analysis. Various machine learning methods were then employed to develop an optimal model that provides the highest accuracy in predicting cracks occurrence. The study also suggests a computer vision-based system for spotting cracks based on the image processing method, followed by calculating the damage ratio. The results confirm that the proposed models have the potential in predicting and detecting damage occurrence.

Chapter 7

Conclusion

Road damage detecting system was created to identify the damages on the road and to categorize the damages. Cracks on the road are one of the problem faced by travellers these days. The system will detect damages present on the road by using certain image processing techniques. Initially images of damages are collected from different sources and sorted them accordingly. The images are preprocessed and then yolov5 is installed and trained it with the dataset. Now the model is able to recognise a damage present in the image which is uploaded by the user. If the system is developed to an advanced version this could be used for better maintenance of the roads.

RESUME ANALYSIS USING DEEP LEARNING

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This is to certify that the report entitled **RESUME ANALYSIS USING DEEP LEARNING** submitted by **Aswin K** (VML20CS056), **Amal Binoy** (VML20CS056) **Mathew Abhijeet** (VML20CS111)& **Sandesh S N** (VML20CS145) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bona fide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

Resume Analysis/Screening is the process of evaluating the resume of the job seekers based on a specific requirement. It is used to identify the candidate eligibility for a job by matching all the requirements needed for the offered role with their resume information such as education qualification, skill sets, technical stuff etc. Resume Screening is a crucial stage in candidate's selection for a job role, it is the stage where the decision making is done whether to move the candidate to the next level of hiring process or not.

Personality of a person plays a crucial role in the organizational progress and also in the self-development process in an individual's life. One of the typical ways to predict the person's personality is either by a standard review or by scrutinizing the Curriculum Vitae of the candidate. The Conventional method of recruiting the candidates involves manual short listing of job seekers resumes according to the requirement of the company. In this work, a system that automates the task of segregating candidates based on eligibility criteria and personality evaluation in a recruitment process is proposed.It also supports comparison between the organisation's requirements and the skills specified in the resumes.

Chapter 7

Conclusion

Even though there are several online resume analysers available online, the major disadvantage with them is that these system use only skill set as a parameter for the analysis of resume. These systems do not take into account other factor like personality of employee which can influence the organisation a lot. Our system, on the other hand, uses machine learning algorithms which predict the personality traits of employees and make it easier for the hirers to select applicants suitable for their company.

Our system also allows users to summarize and parse resume making it more professional. This will help them to get a job much easier than before.

QUANTUM COMPUTING

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

Quantum computers are the new emerging and exciting field of computer science. The Quantum computer technology is based on the laws of quantum physics which have high processing using the capability to be in multiple states, and simultaneously perform all possible permutations. At the time when Quantum Computers will get started, it will become very easy to solve many problems which include the solving of very complex chemical processes with very high accuracy. This research paper will give an overview of how Quantum computers work more time efficient.

Quantum computer is a computational framework based on Quantum Mechanism, which is receiving more and more attentions during the last few decades. It has reached remarkable success on some specific tasks comparing with classical computers. This paper discusses the reason of quantum computer's powerful computing ability.

Chapter 7

Conclusion

Quantum computers are about 158 million times faster than today's supercomputers. This means a problem taking a supercomputer of today 10,000 years to solve is solved by the quantum computer of the future in about four minutes. Over the last decade, there have been significant enhancements in machine learning, a subset of AI. One example is the speed, accuracy and efficiency of Internet searches on search engines, such as Google. The concept of machine learning involves training computers to perform human tasks, allowing the machines to ask questions, gather data, and develop conclusions for algorithm formulation. Today, machine learning development is used in applications such as self-driving cars, web search results, and credit scoring, among many others.

Another industry that can benefit from quantum computing technology is the healthcare industry, especially the drug development sector. Drug testing is a long and drawn-out process, from research and development, to trials, testing, an approvals. However, this can change with quantum computing as the technology will allow the computer to look at all possible molecules and drug combinations and come up with the right solution [7].

One such example is an AI-driven pharmaceutical start-up, Auransa, that collaborated with Polaris Quantum Biotech, a company that deploys quantum computing for drug development. The two companies had embarked on a project to tackle triple-negative breast cancer, which is more aggresive and has fewer treatment options. With Polaris's quantum platform and Auransa's SMarTR Engine and human disease data, the two companies have generated promising leads for future drug development for cancer within months.

Other potential benefits of quantum computing in healthcare include early diagnosis of diseases or anomalies, as well as accuracy and efficiency in processing current and new patient data, especially in image-related data procedures, such as CT scans and X-rays. These possible applications will make for a more accurate diagnosis, reducing additional costs of diagnostic testing for patients and improving the effciency of doctors significantly. Quantum computers are expected to be available in the market by 2030. However, more time will be required for hardware and software refinements before businesses can use them for their applications. Once quantum computers are in operation, the world is poised to witness a technological revolution transforming day-to-day applications [7].

STUDY ON QUANTUM COMPUTING

A Mini Project Report

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Scanned with OKEN Scanner

Abstract

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FACE EMOTION RECOGNITION USING YOLOv5

AND RepVGG

A Mini Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

YOLOv5 is a state-of-the-art object detection algorithm, while RepVGG is a recently proposed lightweight neural network architecture. Facial Expression Recognition (FER) is an important thrust area in the field of artificial intelligence and computer vision. The features of various faces and their characteristics are analyzed to achieve the concept of FER. The proposed approach can be potentially used in various applications, such as video surveillance, human-computer interaction, and entertainment.

The facial characteristics are retrieved using an automated face detection method which helps to identify the emotions of a person. This study examines in-depth FER investigations using several techniques, such as template, appearance, knowledge-based and feature-based approaches, coupled with a variety of algorithms such as viola jones, Faster RCN, SSD, MTCNN and Face landmark Detection.

The proposed approach first detects faces in an input image using YOLOv5 and then extracts the face region using RepVGG. The extracted face region is then classified into different emotion categories using a pre-trained emotion recognition model. The proposed approach can be potentially used in various applications, such as video surveillance, human-computer interaction, and entertainment.

Chapter 7

Conclusion

The facial emotion detection system using YOLOv5 and RepVGG represents an advanced approach to the problem of facial expression recognition. By combining the strengths of the YOLOv5 and RepVGG, the system is able to achieve high accuracy and real-time performance on video streams. The system can be applied to various applications such as affective computing, mood analysis, and emotion-based marketing, among others. However, there are still challenges to overcome in terms of handling complex scenarios such as extreme lighting conditions or occlusions. Emotion detection has become one of the most important aspects to consider in any project related to Affective Computing. Due to the almost endless applications of this new discipline, the development of emotion detection technologies has brought up as a quite profitable opportunity in the corporate sector. Many start-up enterprises have emerged in the last years, dedicated almost exclusively to a

specific type of emotion detection technology. A thorough review of current technologies to detect human emotions are evaluated. To this end, the different sources from which emotions can be read, along with existing technologies developed to recognize them, are explored. This technology can be applied to fields like security, biometrics, law enforcement, etc., for tracking and surveillance purposes. Emotion recognition has wide scope in many areas such as human computer interaction, biometric security etc.

AI NPC INTERACTION IN VIDEO GAMES

A Mini Project Report

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Bachelor of Technology

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Abstract

Video Games have become a very integral part of the modern world and it is used even by adults. Video Games are not only played for leisure these days but also used to earn a living. To make games more appealing and less disinterested we like to implement NPC interaction with the gamers which will make it interesting and a new innovation to the field of video games. The implementation of NPC response as of a human- the AI- is to be implemented.

Conclusion and future work

Conclusion: In conclusion, the mini-project successfully achieved its goal of implementing NPC interaction in a Unity game through the integration of a Python chatbot using text-to-speech, speech-to-text conversion, and socket-based communication. The results demonstrated the effectiveness of the chatbot in providing adequate responses to player input, enhancing the overall gameplay experience.

The project showcased the potential of natural language processing and speech recognition technologies in creating immersive and interactive game environments. By allowing players to engage in conversations with NPCs using their voice, the game achieved a higher level of realism and player engagement. The integration of text-to-speech and speech-to-text conversion in Python further emphasized the advancements in AI and its impact on game development. The accurate interpretation of player input and generation of appropriate responses demonstrated the potential for creating dynamic and contextually relevant interactions with NPCs.

Future Work: Although the mini-project achieved its primary objectives, there are several areas for future improvement and expansion. To create a more interactive and seamless gameplay experience, the following aspects can be addressed:

Enhancing Interactivity: The chatbot's capabilities can be expanded to support a wider range of interactions and responses. This can involve implementing more sophisticated natural language processing techniques and integrating additional knowledge sources. Improving the chatbot's ability to understand complex queries and provide meaningful responses will enhance the immersion and engagement for players.

Addressing Lag Issues: Network latency and synchronization issues can affect the responsiveness of the chatbot and game engine. Future work should focus on optimizing the communication between the chatbot and game engine to minimize lags and delays. This can involve implementing techniques such as data compression, asynchronous communication, or exploring alternative communication protocols.

Handling Error Cases: The chatbot should be designed to handle error cases grace-

fully. It should provide appropriate error messages or prompts when it encounters input it cannot understand or respond to effectively. Implementing error handling mechanisms will enhance the user experience and prevent frustration during interactions.

User Feedback and Iterative Improvement: Collecting feedback from players and incorporating it into the chatbot's training process can lead to continuous improvement. By analyzing user interactions and adjusting the chatbot's responses based on user feedback, the system can become more accurate and tailored to the players' needs.

Integration of More Human-Like Language and Pronunciation: To enhance the realism of NPC interactions, future work can focus on improving the chatbot's language generation and pronunciation capabilities. By incorporating advanced natural language processing techniques and speech synthesis models, the chatbot can produce responses that closely resemble human-like language patterns and intonation. This can involve training the chatbot on a large corpus of conversational data and fine-tuning its language generation algorithms to generate more natural and contextually appropriate responses.

Additionally, integrating voice modulation techniques can further enhance the chatbot's ability to mimic human-like pronunciation, making the interactions with NPCs feel more authentic and immersive for player

STEGA-A Steganography Website

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

As social media reaches deeper inside our daily communication, privacy issues have raised concerns. A common practice is to encrypt messages, but encrypted messages are easily identifiable. Although SHA-256 encryption is almost impossible to crack, with social engineering, passwords can still be compromised. Also, messaging services are vulnerable to censorship.

A better approach is to hide the encrypted message with steganography. There won't be any attempts to attack/block if there's no message—or at least if there appears to be no message.Steganography is the practice of concealing messages (e.g. text, raw bytes, or images) within other types of media (e.g. images, videos, or files). For example, hiding a piece of text inside an image.

Chapter 6

Conclusion

The development of this steganography website capable of encrypting and decrypting text within various media formats, including images, audio, and video, has been successfully achieved. The project has demonstrated the potential of steganography as a powerful technique for hiding information within digital media, providing users with a practical tool for secure communication and data protection. The website allows users to easily embed and extract encrypted messages from media files, thereby enhancing privacy and confidentiality in the digital realm.

To address the future aspects of steganography website, we can explore various avenues for advancement in the field.By implementing a login/sign-up page, the website will be more secure, enabling users to log in to the STEGA website through their Google accounts. This enhancement will provide users with the capability to save their projects for secure storage and convenient access. As technology advances, steganography should explore robust encryption algorithms. Future developments could integrate state-of-the-art techniques like elliptic curve cryptography or quantum encryption. This strengthens the security of hidden information..

In conclusion, the steganography website's development showcases its potential for secure communication and data protection. Future advancements in encryption, steganalysis, mobile/IoT integration, multimedia support, and ethical considerations will drive steganography towards a more secure digital landscape.

FABRIC DEFECT DETECTION

A Mini Project Report

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Abstract

Image processing is a method to perform some operations on an image, inorder to get an enhanced image or to extract some useful information from it. Manual inspection of textiles is a long, tedious, and costly method. Technology has solved this problem by developing automatic systems for textile inspection. Technological advances in computer science and machine vision have introduced the possibility of automatic fabric inspections. Fabric defect detection is a challenging task in the fabric industry because of the complex shapes and large variety of fabric defects. Many methods have been proposed to solve this problem, but their detection speed and accuracy were very low. Fabric defect detection is an important step in the fabric production process. Human inspection with eyes for fabric defects is the traditional method used in the fabric industry, and visual inspections can identify and locate the defects.

Chapter 7

Conclusion

- In conclusion, the fabric defect detection project demonstrates the implementation of a real-time system for identifying and visualizing fabric defects using a webcam and a pre-trained deep learning model.

- In this work, a new CNN-based fabric defect detection system, suited for a realistic scenario, was proposed.

- By automating the process of detecting defects, manufacturers can improve the accuracy and efficiency of the defect detection process, leading to higher-quality products and increased customer satisfaction.

- While the project successfully achieves its objectives, there are opportunities for further improvement and expansion, such as defect classification, or the ability to save or export detection results for further analysis or documentation.

BookBuddies

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This is to certify that the report entitled **BookBuddies** submitted by **ALEENA SUSAN (VML20CS029), AMEYA P V (VML20CS032) , THEJAS K (VML20CS171) & VYSHNAV SREESHAN (VML20CS183)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering . This is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

In today's fast-paced world, reading books has become a luxury that not everyone can afford. While there are libraries that offer book rentals, they often have limited selections, and borrowing a book can be inconvenient. To address this issue, we have proposed an idea of a book rental app that allows users to access a wide variety of books at no cost.

The aim of this project is to build a book rental system that not only facilitates borrowing and lending books but also fosters a community of readers who share a common passion for literature. The system includes several features such as a chat room for users to communicate, schedule meetups, and plan book-related events. One of the most unique features of the system is its prioritization of location-based results, making it easier for users to find books and connect with others in their area.

Chapter 7

Conclusion

In conclusion, the BookBuddies application is an innovative and practical solution for book enthusiasts who want to share and rent books among themselves. Based on our feasibility study, we can confidently say that the app is viable and has the potential to be successful in the market. Our team was inspired by the features of the different reference papers and proposed a solution that is tailored to the needs of our target audience. We have identified the software and hardware requirements, as well as the system architecture, needed to develop the app. Moving forward, the development of the BookBuddies application will require further planning, execution, and testing to ensure that it meets the expectations of our target users. We aim to make the app user-friendly, efficient, and secure. Overall, we believe that the BookBuddies application can make a significant impact on the book-sharing industry and we are excited to bring this idea to life.

7.1 Future Scope

- Expanded Physical Inventory: Book rental services can expand their collection of physical books, catering to customers who prefer the tangible experience of reading traditional print books.

- Advanced Recommendation Systems: Utilizing sophisticated algorithms, book

rental services can offer personalized book recommendations based on customers' reading habits and preferences, enhancing their overall rental experience.

- Collaborations with Publishers and Authors: Book rental services may forge partnerships with publishers and authors to offer exclusive rental deals and access to newly released titles. Such collaborations can provide a competitive edge by offering unique and sought-after content to customers, encouraging them to opt for rental services instead of traditional purchasing.

- Integration with Educational Institutions: Book rental services can establish partnerships with educational institutions, including schools and universities, to provide affordable textbook rental solutions for students. This can help alleviate the financial burden of purchasing textbooks and support sustainable practices within the education sector.

- Enhanced User Experience: Continuous improvement of user experience will remain a priority for book rental services. This includes intuitive and user-friendly online platforms, seamless rental processes, efficient customer support systems, and flexible rental terms to accommodate individual preferences.

KADHAKALI MUDRA RECOGNITION

A Mini Project

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

Indian classical dance such as Kathakali is com- posed of complex hand gestures, body moments, facial expres- sions and background music. Due to the complexities involved in its hand-gesture language, it is often difficult to understand kathakali mudras. We proposed a XGBoost model model which classify the images into 24 different classes. We compared the performance of machine learning algorithms and deep learning algorithms. The system will utilize machine learning algorithms and computer vision techniques to analyze video recordings of Kathakali performances and identify the specific hand gestures and facial expressions used by the performers.

iii

Chapter 7

Conclusion and Future Work

Conclusion:

In conclusion, the Hand Gesture Recognition System developed using XGBoost for the classification of Kathakali hand gestures is a promising technology with vast potential applications. XGBoost algorithms have demonstrated remarkable accuracy and efficiency in identifying each hand gestures. The algorithm classifies hand gestures efficiently with good accuracy so that tourists and research students can know more about Kadhakali story based on viewing hand gestures. XGBoost operates to better understand how to tune its hyperparameters. As we've seen, tuning usually results in a big improvement in model performances.

Future Work:

However, there is still room for improvement in terms of accuracy and speed. Future work can explore alternative approaches such as deep learning algorithms to overcome the limitations of XGBoost. Future works include generating larger dataset and identifying mudras from video streams.

CHRONIC KIDNEY DISEASE PREDICTION USING

MACHINE LEARNING

A Mini Project Report

submitted to

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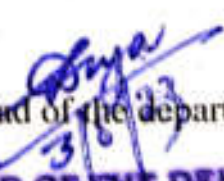
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Abstract

Chronic Kidney Disease (CKD) is a non-communicable disease that affects millions of people worldwide and is a significant contributor to morbidity, mortality, and healthcare costs. Early prediction and management of CKD is essential to prevent the progression of the disease to kidney failure, which is associated with significant morbidity and mortality. Machine learning algorithms have the potential to aid in the early detection and prediction of CKD. By analyzing large datasets containing clinical and laboratory data, machine learning models can accurately identify patients with CKD and predict their risk of disease progression. This has significant implications for patient care, as early intervention can slow the progression of CKD and prevent the development of kidney failure. The most commonly used machine learning algorithms for CKD prediction include Random Forest, Support Vector Machine, and Decision Tree.

Chapter 8

Conclusion

Chronic kidney disease (CKD) prediction is a complex task that requires analyzing various factors, including demographic data, medical history, laboratory test results, and other risk factors. Machine learning algorithms can be used to develop predictive models for CKD.

Through the analysis of available data, these models can provide an accurate prediction of the likelihood of CKD occurrence in individuals. These models can also be used to identify the most critical risk factors associated with CKD and to develop targeted prevention and treatment strategies

8.1 Future Works

Future improvements for a Chronic Kidney Disease (CKD) prediction model can include incorporating additional features such as genetic markers and socioeconomic factors, fine-tuning the algorithm through alternative models and hyperparameter optimization, addressing imbalanced data challenges, integrating longitudinal data to track disease progression, validating the model using external datasets, enhancing interpretability through feature importance analysis, and implementing a continuous improvement feedback loop. These improvements aim to enhance the model's predictive accuracy, generalizability, interpretability, and usefulness in early detection and personalized management of CKD.

LEFTOVER FOOD MANAGEMENT SYSTEM

A Mini Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

In recent times, food wastage is increasing at an unprecedented rate and creating a negative effect on the economic growth factors. This in turn creates a major impact on the agricultural processing industries. As food recycling is always remaining as a complex task, in this project, we are focusing mainly on the food wastage in the office premises, wedding, events,hotels etc. This web application is used to manage wastage foods in a useful way. Every day the people are wasting lots of foods. So we have to reduce that food wastage problem through online. In general we are automating the process of the food wastage,and creating a platform where we can ensure food wastage is minimal.

Chapter 7

Conclusion

7.1 Conclusion

.The project titled as Leftover Food Management System was deeply studied and analyzed to design the code and implement. It was done under the guidance of the experienced project guide. All the current requirements and possibilities have been taken care during the project time.

.In our project, we are targeting the person who wants to donate wastage food this will create a greater impact on the cost saving as well as the food wastage management system, and there will be greater impact on the day by day food wastage. In our future work, we will try to integrate with other emerging technology such as block chain and also it will cover more areas.

Disease Detection In Tomato Plants By Image Processing

A Mini Project Report

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

Agriculture is the art and science of cultivating the soil, growing crops and raising livestock. It includes the preparation of plant and animal products for people to use and their distribution to markets. Agriculture provides most of the world's food and fabrics.Many farmers are cultivating in remote areas of the world without the appropriate knowledge and disease detection, however, they rely on manual observation on grains and vegetables, as a result, they are suffering from a great loss. Digital farming practices can be an interesting solution for easily and quickly detecting plant diseases.

Crop disease in the plant is a significant issue in the agriculture sector, and it is currently very difficult to detect these illnesses in crop leaves. The foundation of the global economy is agriculture. India ranks second in the production of tomatoes worldwide. The tomato crop is affected by various diseases which lead to a reduction in product quality and quantity.The advancement in computer vision opens up door for predicting plant diseases that appear in crops.

Chapter 7

Conclusion

In conclusion, the use of image processing techniques for tomato plant leaf detection has proven to be successful in identifying and analyzing various leaf characteristics. By employing algorithm such as segmentation,feature extraction and classification,images of tomato plant leaves can be analyzed.This method provides a fast and reliable way to automate process of monitoring plant health and detecting problems early on,which is essential for increasing crop yields and improving food security.Image processing is a valuable tool in modern agricul- ture,as it enables farmers to make informed decisions about the right time to fertilize or apply pest control measures and so on. With the continuing advance- ment of technology,image processing promises to play an increasingly important role in crop management and allow us to optimize yields,reduce waste, and pro- duce healthier,more sustainable food for our growing population

DETECTION OF FACULTY MEMBERS AND THEIR LOCATION

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

Machine learning is an application of Artificial Intelligence where we give machines access to data and let them use that data to learn for themselves. It is difficult to know the exact location of the faculty in the college hence faculty detection is the key. The target is to create a website that can be used to detect and identify faculty members and to check whether they are inside the staffroom or in a classroom by refering to their timetable. Machine learning, a subfield of artificial intelligence, enables machines to learn from data and make predictions or take actions without explicit programming. In the context of faculty detection, machine learning algorithms can be trained on a dataset of faculty images to learn patterns and features that distinguish faculty members from other individuals. Image processing techniques complement machine learning by providing tools to manipulate and analyze images. In the context of the website, image processing algorithms can be utilized to enhance and preprocess images before feeding them into the faculty detection model.

iii

Chapter 7

Conclusion

In conclusion,our mini project focused on implementing face recognition technology to identify faculty members using cameras and utilizing their timetables to determine their location.Through the implementation of face recognition algorithms and cameras,we successfully developed a system that could accurately recognize and identify faculty members based on their facial features.Furthermore, by integrating the faculty timetable data into our system, we were able to determine the current location of each faculty member. Overall,our mini project successfully demonstrated the potential benefits of implementing face recognition technology and integrating timetable data for identifying faculty members and determining their locations

SMART WASTE BIN

A Mini Project Report

submitted to

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in partial fulfillment of the requirements for the degree of

Bachelor of Technology

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Abstract

Waste management is the process of collecting, transporting, disposing, or recycling waste materials. With the increase in population and urbanization, waste management has become a major challenge for many countries. Today, there are various waste management techniques that are being used, including landfills, incineration, recycling, and composting.In recent years, there has been a growing emphasis on sustainable waste management practices, which focus on reducing the amount of waste produced, increasing recycling rates, and promoting the use of renewable energy sources. So the smart waste bin, that we proposed is also a part of Smart waste management system, which is more efficient, cost-effective, and hygienic solution to waste management.

Chapter 7

Conclusion

Based on the result of our project,it can be concluded that ,the smart waste bin system is an innovative approach towards efficient waste management. The system employs a combination of technologies such as IR sensors, ultrasonic sensors, machine learning algorithms, and servo motors to classify and sort the waste into appropriate bins.he system also sends notifications to the server when the bins are full, ensuring timely disposal of waste. The feasibility study conducted on the system suggests that it is technically feasible, operationally feasible, and economically feasible. The system can significantly improve the efficiency of waste management systems and reduce the environmental impact of waste. With further development and implementation, the smart waste bin system has the potential to revolutionize the waste management industry.

Air Writing Recognition and Detection

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Abstract

Air writing recognition and detection is a project aimed at developing a system that can recognize and detect text written in the air by a user using hand gestures. The system will utilize machine learning and computer vision techniques to detect and recognize text, and it will provide an innovative and intuitive method of input for various applications. The proposed system will consist of a camera or a set of cameras to capture the hand movements of the user, which will be processed by the machine learning algorithms to recognize the text being written. The system will provide a user-friendly interface for the user to input the text, and it will also have the ability to store and recall previously written text.

The feasibility study of the project will include technical, operational, and economic aspects to determine the viability of the project. The design of the system will consist of an architecture diagram, use case diagram, data flow diagram, and an entity-relationship diagram. The project's objectives include creating an innovative and intuitive method of text input, improving accessibility for people with disabilities, and exploring the potential applications of air writing recognition and detection technology.

Chapter 7

Conclusion

In conclusion, the implemented air handwriting recognition and detection project has shown promising results with an accuracy rate of 85 percent. While there is still room for improvement, this achievement marks a significant milestone in the development of a system capable of interpreting and understanding handwritten gestures in the air.

The project's success can be attributed to the dedicated efforts of the team and the utilization of advanced machine learning algorithms. The system has demonstrated its ability to accurately recognize and interpret various gestures made in the air, enabling users to input text or commands without physical contact.

However, the project's limitations are apparent in its current form. The accuracy and reliability of the handwriting recognition and detection algorithms need improvement. While the system can recognize some basic gestures, it struggles with more complex or intricate movements, resulting in recognition errors

DESIGNING A SECURE AND EFFICIENT MEDICAL RECORD STORAGE SYSTEM USING IPFS AND BLOCKCHAIN TECHNOLOGY

A Mini Project Report

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This is to certify that the report entitled **DESIGNING A SECURE AND EFFICIENT MEDICAL RECORD STORAGE SYSTEM USING IPFS AND BLOCKCHAIN TECHNOLOGY** submitted by **Adeena S** (VML20CS015), **Ancil Tresa Sunil** (VML20CS035) , **Blessy Seby** (VML20CS064) ,**Anoushka Sebastin** (VML20CS047) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bona fide record of the project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

Secure and timely access to health records during medical emergencies has always been a source of concern in the healthcare industry. The emergence of Blockchain technology upgraded the traditional ways of patient history documentation. Here, we demonstrate the use of smart contracts to initiate emergent access to patient records following successful identification of the same via Ethereum Blockchain (EB). Unfortunately, this Personal Health Record (PHR) system is heavily reliant on accurate patient identification based on familiarity. Moreover, storing a massive amount of patient data directly on Blockchain can result in significant overhead. We also observed the lack of a proper inspection routine or algorithm that could identify potential fraudsters within the chain. The patient identification process can be improved by incorporating facial recognition into the system, which will in turn initiate retrieval of medical records. Another significant improvement would be to integrate the concept of Inter Planetary File System (IPFS) to Blockchain. Additionally, we can also employ the use of trust scores to monitor the loyalty of practitioners and revoke access permissions in case of rogue users.

Chapter 7

Conclusion

The proposed architecture can enable fast access to medical records while maintaining consistency and accessibility. The integration of biometric IDs ensure a fast and durable authentication policy while IPFS alleviates the issues of storage overhead. The elimination of centralized trust further cements the need for implementing the proposed system in all medical institutions.

E-LEARNING ASSISTANT

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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Muhammed Ajnas O K (VML20CS118)

Athira K K (VML20CS058)

Alan K Johnson (VML20CS024)

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June 2023

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Abstract

An e-learning assistant is an innovative technology-driven solution designed to enhance the overall e-learning experience. By combining various functionalities and features, it aims to provide students with a comprehensive and interactive learning environment. The e-learning assistant leverages the power of artificial intelligence, machine learning, and data analysis to personalize the learning process, predict students' performance, and facilitate seamless communication and collaboration.

The e-learning assistant serves as a comprehensive platform that enables students to access educational materials conveniently. Furthermore, the e-learning assistant incorporates a prediction feature to forecast students' results based on their performance and historical data. This predictive capability offers valuable insights to students, enabling them to identify areas of improvement and take proactive measures to enhance their learning outcomes.

The development of such an e-learning assistant holds the potential to enhance the learning experience, promote self-directed learning, and facilitate academic success for students in the digital era.

Chapter 7

Conclusion and Future works

Our e-learning model offers a promising solution to the challenges facing the education sector. By utilizing machine learning algorithms to provide personalized support and guidance to students, the system has the potential to revolutionize the way students learn and improve their academic performance.

The model's wide scope and adaptability make it suitable for use in a variety of educational settings and for different subjects and disciplines. Its objective of providing personalized support and guidance to students can help to improve student engagement, motivation, and retention rates, while also benefiting teachers and instructors by providing them with insights into student performance and progress.

Our web application helps students track study hours, predict academic performance, and receive personalized recommendations. Adding multinomial regression will improve accuracy, automating study material retrieval will save time, and a teacher evaluation session will provide valuable insights. These enhancements will enhance the application's

effectiveness and provide a comprehensive learning experience for students. We believe that the e-learning model has the potential to contribute to a more equitable and accessible education system, providing students with equal opportunities to succeed and reach their full potential. As such, we are committed to further development and implementation of the system, with the ultimate goal of transforming the way students learn and achieve their academic goals.

CROP YIELD PREDICTION

A Mini Project Report

submitted to

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Abstract

Agriculture plays a dominant role in the growth of the country's economy.Looking at the current situation faced by farmers in India, we have observed that there are many suicides occurring in India over many years, the reason behind this is change in weather conditions and frequent change in Indian Government system. Climate and different environmental modifications have become a major threat in the agriculture field. This makes the problem of predicting the yielding of crops an exciting challenge.Sometimes farmers are not aware about the crop which suits their soil quality, soil nutrients, soil composition. This project which proposes to help farmers to check the soil quality to get a good crop yield. The prediction will helps the farmer to predict the yield of the crop before cultivating onto the agriculture field. Machine learning is a essential approach for achieving for practical and effective solution for this problem. Data Mining techniques are the better selections for this purpose. Different Data Mining techniques are used in agriculture for estimating the upcoming year's crop production. Crop Yield Prediction includes predicting yield of the crop from previous historical data like Nitrogen Phosphorus Potassium ratios in the soil,rainfall, temperature . It could be useful in analysing the ground water levels in the past and which predict the future levels.

Conclusion

In conclusion, a crop yield prediction system can provide valuable insights to farmers, agronomists, and other stakeholders in agriculture. The system takes given input data and utilize machine learning algorithms to analyze the data and make predictions.

The system should be designed with operational feasibility in mind, including considerations such as data availability, processing time, technical expertise, cost, scalability, accessibility, reliability, integration, and regulatory compliance. A user-friendly interface and the ability to integrate with other systems and platforms can make the system more useful and efficient for farmers and other stakeholders.

Overall, a crop yield prediction system can help farmers make informed decisions about planting, harvesting, and crop management, ultimately leading to increased yields and profits. The implementation of such a system can contribute to a more sustainable and efficient agricultural industry.

FRUITS AND VEGETABLES DISEASE
IDENTIFICATION USING IMAGE PROCESSING

A Project Phase 1 Report

submitted to

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Abstract

In India, the livelihood of most people is based on agriculture. In this, the fruits and vegetable industry plays a very significant role. As we know, India is the most populated country in the world. As a result, the consumption of food also increases accordingly. Many farmers in India find a livelihood through the production of fruits and vegetables. India not only produces them but is also a very well-known exporter of fruits and vegetables. Here in India, the classification of good and bad fruits and vegetables is done manually in an inconvenient manner and is done rarely at some places. This affects the grading of fruits and vegetables while exporting. This causes diseases in them, and the changing climatic conditions in India also play a role in causing diseases. This determines the quality of fruits and vegetables. So, in order to overcome this situation, we propose a technology that identifies whether fruit and vegetable are diseased or healthy through image processing.

Chapter 7

Conclusion

This system can be used to identify whether a fruit or vegetable is healthy or diseased. This system helps to avoid the traditional way of grading fruits or vegetables based on their physical appearance and texture. This system overcomes the drawbacks of traditional method of grading and help people in identifying healthy and diseased fruits and vegetables in an efficient manner. Further in future, this system can be improved to generate information regarding the diseases that is identified.

DROWSINESS DETECTION USING IMAGE PROCESSING

A Mini Project Report

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Bachelor of Technology

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Abstract

Drowsiness detection in drivers using image processing is a technique used to identify the level of fatigue in a driver by analyzing images captured by a camera installed inside a vehicle. The aim of this technique is to alert the driver in case they are getting drowsy while driving, thus avoiding potential accidents.

The image processing algorithm used for drowsiness detection typically involves analyzing facial features such as eye movements, head position, and blink frequency. By monitoring these features, the algorithm can detect changes in the driver's behavior that are indicative of drowsiness. For example, if the driver's eyes remain closed for an extended period or their head begins to droop, the system can trigger an alert to the driver to take a break or pull over.

Drowsiness detection systems using image processing can be particularly useful for long-distance commercial drivers who may be more prone to fatigue due to extended periods of driving. By providing an early warning system, these systems can help prevent accidents caused by drowsy driving and ultimately save lives.

Chapter 5

Conclusion

A driver drowsiness detection system is a feasible and effective solution to prevent accidents caused by drowsy driving.

The system uses a combination of image processing, machine learning, and sensor fusion to accurately detect signs of drowsiness in the driver and trigger an alarm to prevent potential accidents.

The system is economically feasible, technically viable, and operationally practical.

Ethical and legal concerns must be considered when designing and implementing the system, but overall, it has the potential to save lives and improve road safety.

MULTIPLE FACE RECOGNITION ATTENDANCE SYSTEM

A Mini Project Report

submitted to

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Abstract

The use of face recognition technology has gained significant attention in recent years due to its accuracy, efficiency, and convenience. This abstract provides an overview of multiple face recognition attendance systems, highlighting their key features and benefits.Multiple face recognition attendance systems utilize advanced Machine learning algorithms to identify and authenticate individuals based on their facial features. These systems typically consist of hardware components such as webcam with software applications that enable face detection, recognition, and attendance tracking.

The primary objective of a multiple face recognition attendance system is to automate the attendance process in various domains, including educational institutions, workplaces, and events. By eliminating the need for manual attendance taking, these systems offer several advantages. They save time and effort, reduce administrative workload, minimize errors, and enhance overall efficiency.In a typical multiple face recognition attendance system, individuals' faces are captured by cameras at the entrance or designated areas. The system employs sophisticated algorithms to detect and extract facial features from the captured images. These features are then compared with the pre-registered face templates stored in a database. If a match is found, the system records the individual's attendance automatically. In conclusion, multiple face recognition attendance systems provide a modern and efficient solution for automating attendance processes.

Chapter 7

Conclusion

Like human's, now computer's also have shown the ability to recognize and distinguish between faces. Face recognition and image enhancement is an interesting classical problem to embark the journey in the field of artificial intelligence. AI can be used to implement solutions to problems dealing with face recognition and image enhancement.

In conclusion, the project has successfully implemented multiple face recognition capabilities. The Multiple Face Recognition System allows for efficient registration of students, dataset training, and accurate identification of multiple faces.The successful implementation of multiple face recognition showcases the application's potential in various domains, such as security systems, attendance management, and access control. The project's outcome demonstrates the effective integration of hardware and software components, resulting in a reliable and user-friendly solution for Attendance marking using face recognition.

TOUR GUIDE USING MACHINE LEARNING

A Mini Project Report

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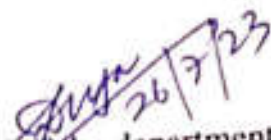
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Abstract

The personalized tour guide web application is a machine learning-based web application that assists users in planning their trip based on their budget and scenery preferences. The website uses convolutional neural network (CNN) algorithm to categorize the user's scenery preference by analyzing the image they upload or their last social media post.

Based on the user's budget preference and scenery preference, the website suggests tourist attractions, hotels, and restaurants from the database and displays them on a page with their location and photos. The website provides personalized travel recommendations that cater to the user's interests, thus making it easier for them to plan their trips. The website does not provide any booking or reservation services. Users will need to make their own bookings or reservations directly with the attraction, hotel, or restaurant. The goal of this project is to provide a user-friendly and efficient platform for users to plan their trips without any hassle. By utilizing machine learning and image processing, the website aims to provide a more accurate and efficient way of categorizing the user's scenery preference, thus enhancing the user experience.

Chapter 7

Conclusion

In conclusion, the project trained a machine learning model using the CNN algorithm, we successfully developed a system capable of identifying and categorizing various natural landscapes such as mountains, beaches, streets, and forests. Integrating this model with a social media login page allowed users to fetch their posts and organize them based on scenery. The inclusion of a budget selection page empowered users to choose from basic, premium, and luxury options, tailoring their experience to their interests and financial capabilities. Based on these selections, a personalized tour package was recommended, comprising suitable hotels and attractions that aligned with the chosen category and budget. This comprehensive approach aimed to deliver a seamless and personalized user experience, ensuring that users could explore and enjoy their preferred scenery and travel options with ease. The project represents an amalgamation of machine learning, social media integration, and personalized recommendation systems, all working together to enhance user satisfaction and engagement.

HANDWRITTEN TO TEXT CONVERTOR WITH GRAMMATICAL ERROR CORRECTION

A Mini Project Report

submitted to

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Bachelor of Technology

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Abstract

The handwritten to text converter is a software tool that allow the users to convert handwritten documents into digital text format. The system utilizes advanced optical character recognition (OCR) techniques to extract text from handwritten input, followed by a sequence of natural language processing (NLP) algorithms using a pretrained model to identify and correct grammatical errors. The website also amends the text so that it conforms to its language's grammatical rules. The technology has numerous applications in various fields, including education, healthcare, finance, and legal industries, where handwritten notes or documents need to be digitized for easy access and analysis. In conclusion, the presented handwritten to text converter with grammatical error correction capabilities offers a robust and accurate solution for transforming handwritten content into machine-readable text.

Chapter 7

Conclusion

A handwritten to text converter with grammar checking is a powerful tool that can save time and improve the accuracy of written communication. With the ability to convert handwritten notes into digital text and then check the grammar and spelling of the resulting text, this tool can help to ensure that written communications are clear, professional, and error-free. One of the main benefits of using a handwritten to text converter with grammar checking is that it can significantly reduce the amount of time required to transcribe handwritten notes into digital text. Another benefit of this tool is that it can help to catch grammatical errors and spelling mistakes that may otherwise go unnoticed.

CROWDFUNDING USING BLOCKCHAIN

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This is to certify that the report entitled **CROWDFUNDING USING BLOCKCHAIN** submitted by **SONA SANTHOSH VENIYIL (VML19CS065), JITHINA RAJ P (VML20-CS091) & NANDANA C P (VML20CS121)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

Crowdfunding using blockchain technology is a new and innovative way of raising funds for various projects and ventures. By using a decentralized ledger system, blockchain allows for transparent and secure transactions, which can be made directly between the project creators and the investors, without the need for intermediaries such as banks or crowdfunding platforms. This eliminates the fees and other restrictions associated with traditional crowdfunding methods, making it more accessible to a wider range of people. Additionally, blockchain-based crowdfunding can also provide investors with more control over their investments, as well as the ability to track the progress of the project in real-time. Overall, crowdfunding using blockchain has the potential to revolutionize the way we fund and support new ideas and projects.

Conclusion

As the world is moving towards Web 3.0 and decentralized systems to solve their daily problems, it is important to test and build new alternative architectures that show us the ideology to provide innovative solutions. With the existing solutions in the crowdfunding world created and handled by intermediary corporations that have a say on various parameters of a campaign, the alternative solution based on peer-to-peer network handling the campaign transactions seems ripe. This project explores ways to remove intermediaries in a crowdfunding business use case. This was done with the help of smart contracts, written for the crowdfunding dapp application deployed in Ethereum blockchain, that guide the execution of a transaction. This interaction allows users to create and invest ether into campaigns that interest them.

PHISHING WEBSITE DETECTION SYSTEM

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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July 2023

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Abstract

Phishing attacks have become a major security concern, with attackers creating websites that look like legitimate ones to trick users into giving away sensitive information. To combat this, we propose a phishing website detector with the help of datasets. Our system extracts features such as URL and sends them to a model trained on a dataset of known phishing and legitimate websites. The model predicts whether the website is likely to be a phishing website or not, and if it is flagged as phishing, an alert is sent to the user. Our system has the potential to reduce the success rate of phishing attacks and improve user security.

Chapter 7

Conclusion

The phishing website detector has the potential to be a highly effective tool for detecting and alerting users to potential phishing attacks. By analyzing website features and comparing them to a database of known phishing and legitimate websites, the model can accurately predict the likelihood of a website being a phishing website. The system is technically feasible, economically viable, and operationally feasible, making it a promising solution for addressing the growing threat of phishing attacks.

Logo Detection System

A Mini Project Report

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in partial fulfillment of the requirements for the degree of

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Abstract

Logo detection is a computer vision technique that aims to automatically recognize logos within images or videos. This abstract highlights the algorithms and machine learning models used in logo detection systems, along with their potential applications in advertising analysis, brand monitoring, copyright enforcement, and image retrieval. The abstract emphasizes the importance of accurate and efficient logo identification in various domains, showcasing the relevance and significance of logo detection technology. The results demonstrate that the logo scanner achieved impressive accuracy rates in both logo detection and recognition tasks. The system successfully identified logos in real-world images, even in challenging scenarios, showcasing its robustness and applicability. This article will discuss the initial project background of our new logo detection system.

Logo scanner report provides valuable insights into the development of a logo recognition system using computer vision and deep learning techniques. The findings contribute to the field of image processing and offer practical applications in various domains such as brand monitoring, advertisement analysis and market research.

Chapter 7

Conclusion

Logo detection system helps to identify original logos in an image. Based on the results of our project, it can be concluded that implementing machine learning and image processing techniques in logo detection system can produce accurate outputs.

HAND WRITTEN CODE COMPILATION

A Mini Project Report

submitted to

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Bachelor of Technology

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Abstract

It is extremely challenging to create a computer program that can automatically identify a handwritten computer program, compile it, and execute it. The reasons are the various types, shapes of handwritten characters of different peoples. Among other issues in optical character recognition, accurate handwritten identification is the main research issue. Nowadays, there is a trend of storing information from the handwritten documents for future use. A simple way to store the information is image capturing of the handwritten document and save it in image format. The final evaluation results show that the newly developed system can identify the handwritten computer program syntaxes with a higher level of accuracy.

Chapter 7

Conclusion

In conclusion, hand-written code compilation offers a deeper understanding of programming principles and fosters problem-solving skills. While it may be time-consuming, the practice contributes to improved coding proficiency and a more profound grasp of software development concepts. As technology advances, automated tools complement this process, but the value of manual compilation remains undeniable in cultivating expertise and creativity in the field.

BOOK SHARING AND WRITING MANAGEMENT SYSTEM

A Mini Project Report

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Abstract

Sharing books is the most basic form of sharing knowledge.But, sharing books manually may be tedious and not always convenient. The project aims to provide an electronic medium to share books and give readers a platform for discussing books. It uses the basics of day-to-day social transactions and incorporates them into a business model. It delves into the customer-to-customer business model to create a conducive and beneficial environment for both the user and providers. The system provides a platform for any user, who has a book that is not needed anymore and would like to share it with another user that may have the need for it. Also, this aims in helping the individuals write their own perspective ideas, and creativity. This shall be accomplished by developing a cross-platform app that incorporates today's leading web technologies.

Chapter 7

Conclusion

Book Hut, the book-sharing system will bring about good impact in the community in improving the reading culture. It has a great advantage where the users can easily access the book of their interest without spending money. Also, the books can be shared after reading thereby utilizing it to the maximum. The writing skills of an individual are also improved. Moreover, the book-sharing system acts as a virtual book club and connects people with similar reading and writing interests. Altogether, it develops reading and writing culture in a community. The system is user-friendly in terms of design and functionality, free of cost and secure. We look forward to add more features to the current work and popularizing in our college.

SENTIMENT ANALYSIS

A Mini Project Report

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Abstract

In this report, we aim to present the first review of a "Sentiment Analysis model for movie reviews". Movie reviews help users decide if the movie is worth their time. A summary of all reviews for a movie can help users make this decision by not wasting their time reading all reviews. Movie-rating websites are often used by critics to post comments and rate movies which help viewers decide if the movie is worth watching. Sentiment analysis can determine the attitude of critics depending on their reviews. Sentiment analysis of a movie review can rate how positive or negative a movie review is and hence the overall rating for a movie. Therefore, the process of understanding if a review is positive or negative can be automated as the machine learns through training and testing the data. This project aims to rate reviews using two classifiers and compare which gives better and more accurate results.

Chapter 7

Conclusion

The report is based on the final review of the project "SENTIMENT ANALYSIS ON MOVIE REVIEW". The project satisfies the problem which is stated in the problem definition section. The project achieved an accuracy rate of 79%. In conclusion. this system streamlines the sentimental analysis of movie reviews, so that it can be easily accessed by the people. We hope that this system helps the people to know the better rated movies and thus utilise their time efficiently By offering proper sentiment about the movie, the system helps the people to make a proper decision. that is watching the movie is worth or not. The system is user friendly, and contribute a lot to this busy world.

Cloud Based Centralised Jail Management System

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

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Abstract

Cloud computing is the on-demand delivery of IT resources over the Internet with pay-as-you-go pricing. Instead of buying, owning, and maintaining physical data centers and servers, you can access technology services, such as computing power, storage, and databases, on an as-needed basis from a cloud provider like Amazon Web Services (AWS).Jail management System uses local database to store the details. We provide a centralised cloud based management system for easy access of details of prisoners to the top officials.

Chapter 8

Conclusion

The project is to basically improve the traditional style of storing information of prisoners details while the technology has advanced so far. This method provide an efficient way of storing and retrieving of data. Also by using cloud computing it makes the whole system centralised which makes the sorting of data and information much more quicker.The model is now ready to be in use. We can enter the details of data, which will be stored in a cloud database. This data can then be retrieved by the user according to the details entered.

CHESS BOT USING MACHINE LEARNING

A Mini Project Report

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Bachelor of Technology

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Abstract

Machine learning is an application of Artificial Intelligence where we give machines access to data and let them use that data to learn for themselves. The main idea for the maintaining and the reason this project exists is to make a chess bot using machine learning that can be useful in learning and understanding the players. A self-evolving AI seems better with the existing knowledge summarised by mankind as the core for the formation of the bot. .

Chapter 8

Conclusion

The Chess Bot we created here is a machine that people to understand chess. Our bot can analyze extensive chess data, including historical games and expert moves, enabling it to learn complex patterns and strategies. This empowers the bot to make informed decisions and play at a high level, making it a valuable tool for both beginners and experienced players.The integration of machine learning techniques allows the Chess bot to continually improve its performance. By leveraging reinforcement learning, the bot can learn from its mistakes through trial and error, gradually refining its strategies and decision-making processes.This adaptability and self-improvement capability make the bot an ideal candidate for projects requiring dynamic and evolving chess-playing capabilities.

LATE COMER IDENTIFICATION SYSTEM

A Mini Project Report

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Abstract

There is a need for a system which identifies the late comers of an institution as there are many students who arrive late multiple times.At many institutions,there are staffs and faculties who are present at the entrance points of the institution just to identify the late coming students.This increases the workload of the staffs since they have to stand at the entrance points for so much time.

Face recognition is a method of identifing or verifing the identity of an individual using their face.Our project "Late Comer Identification System using face recognition" makes use of this face recognition technology and can help institution to monitor their students attendance and punctuality.This system uses a camera to capture an image of an individual's face,which is then compared to a pre-existing database of faces to verify the individual's identity.The system can accurately identify an individual even if they arrive late,making it a valuable tool for tracking the details of the students with the timestamp at which they have entered the institution.

The system has several advantages over traditional attendance tracking methods,including increased accurancy,efficiency and convenience.It eliminates the need for manual tracking and can significantly reduce administrative workload.

Chapter 7

Conclusion

The report is based on the final review of the project "LATE COMER IDENTIFI-
CATION SYSTEM". The project appropriately corresponds to the problem stated in
the problem definition section. The project aims to provide an efficient and convenient
way for institutions to track their latecomers. The system introduces a practical method
for monitoring late arrivals, encompassing advantages such as streamlined attendance
management, automated identification, real-time updates, and time-saving features.

SMART ID

A Mini Project Report

submitted to

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This is to certify that the report entitled **SMART ID** submitted by **FATHIMATH RA-JIYA P K** (VML20CS078), **KARTHIK T V** (VML20CS097), **K K NASIF** (VML20CS100) & **LISNA C H** (VML20CS103) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech. degree in Computer Science and Engineering. This is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Abstract

The proposed NFC ID card technology is an advanced attendance system using facial recognition. The system is designed to make the attendance system more convenient for the teachers by providing automated software which provides the attendance accurately and it also prevents malpractise, therefore making it an optimal attendance system.

In recent times, the important aspect that concerns the administration of an Educational Institution is the student's attendance.Currently student marks his attendance manually by the teachers, this consumes a lot of time and proxies may take place. This attendance system integrates NFC reader along with Face recognition system.

By using Customized cards students are enable to do transactions at canteen and stationary shop. The respective amount will deduct automatically from student's accounts.

Chapter 7

Conclusion And Future work

The Smart ID Card System is intended to be used in colleges and universities. The Smart ID will ease the work of the student by helping to track money transactions spent around the campus at a given time. Also, it will allow the administrator around the campus to keep track at all times student needs around campus and improve all these services that is needed on a daily basis. Again,the system will provide a way for a student to do a smooth and clean transactions. Install new RFID based embedded systems that don't need the man power and computer to operate where each embedded system will have a specific function to execute. The proposed frame work can be enhanced and implemented in real time. The Collage campus can be digitalized using the smart id card where solves the present problems of attendance and finance. In the proposed technique we have used smart card for the payment and attendance system. Later it can be implemented in library, department lab, collage buses and so on.

VETERINARY HEALTH MANAGEMENT SYSTEM

A Mini Project Report

submitted to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the degree of

Bachelor of Technology

by

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JOEL SCARIA JUSTINE (VML20CS093)

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June 2023

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Abstract

The recent advances in information management systems coupled with machine learning algorithms paved the way for a significant revolution in animal healthcare industries. However, the data in such systems suffer from various challenges such as security, reliability, and convenience, to name a few. Traditional systems are not useful to meet these critical issues because these systems have not a consistent structure for data security and reliability policies. Therefore, a new solution is required to enhance data accessibility and should regulate government security policies to ensure the accountability of the usage of the medical records system. Moreover, it is also required to analyze historical data of veterinary clinic using data mining and machine learning techniques to predict the future appointments scheduling requests, which is essential for veterinary management to drive better future decisions, for instance, future demands of medical supplies and to plan veterinary medical staff, etc.The proposed system consists of two main modules. Blockchain-based secured veterinary information management, data and predictive analytics modules. First, a blockchain-based secure and reliable veterinary clinic information management system is developed using Hyperledger Fabric. Second, a smart contract enabled data, and predictive analytics modules are developed using permissioned blockchain framework.

Chapter 7

Conclusion

The implementation of a blockchain-based veterinary information management system provides a more secure and tamper-proof solution to store, manage and share animal health records. With the use of a distributed ledger technology, each transaction or entry made to the system can be recorded and verified, preventing any unauthorized or malicious alterations. This ensures the integrity of the data and builds trust among stakeholders, including veterinarians, pet owners, and regulatory bodies. Additionally, the system can provide a more efficient and streamlined way of managing animal health records, reducing the administrative burden and allowing for better collaboration and coordination among stakeholders. Moreover, the incorporation of predictive analytics in veterinary information management systems can assist in resource management, especially in situations of resource scarcity. By analyzing historical data, the system can forecast future demand for veterinary services, enabling clinics to allocate their resources in a more systematic and efficient way. This can help prevent overstaffing or understaffing situations, leading to more optimal use of available resources and

better service delivery. Furthermore, the system can help clinics identify patterns and trends in animal health issues, enabling them to proactively address emerging health concerns and prevent outbreaks. In summary, the integration of blockchain-based technology and predictive analytics can significantly improve the quality and reliability of veterinary health services, benefitting both animal health and the veterinary industry as a whole.

INTELLIGENT ANIMAL DETECTION SYSTEM

A Mini Project Report

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Abstract

The mitigation of negative impacts caused by human-wildlife encounters, particularly in remote tribal areas, is crucially dependent on the implementation of animal detection as a safety and conservation measure. Machine learning is a subset of artificial intelligence, it is a method of imitating human intelligence to an artificial object.

This tool help us to detect animals in a forest so that we can avoid the encountering between humans and wild animals by taking proper safety measures. This project develops an algorithm to detect the animals in wild life near tribal areas.

Chapter 7

Conclusion

With the implementation of our intelligent animal detection system we can detect the wild animals entering into human habitats, so that we can take proper precautionary measures. We believe that the contributions of this paper are a crucial step for reducing human-animals conflict and the decrease in vehicle accidents due to animals, causing a reduction of expenses to the public coffers and avoiding deaths of peoples and passengers.

PORTABLE SEED GERMINATION KIT

A Mini Project Report

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Abstract

A portable seed germinator cum greenhouse is a device that combines two important functions for growing plants: germination and greenhouse growth. The seed germination function involves providing a controlled environment that promotes seed growth. This includes maintaining the right temperature, humidity, and lighting conditions for the specific type of seed being germinated. The germination process typically lasts from a few days to a few weeks, depending on the type of seed. Once the seeds have sprouted and grown into seedlings, they can be transplanted into the greenhouse section of the device. The greenhouse function involves providing a controlled environment for the seedlings to continue growing into mature plants. This includes maintaining the right temperature, humidity, and lighting conditions for the specific type of plant being grown.

A portable seed germinator cum greenhouse can be particularly useful for gardeners and farmers who need to start seeds indoors before transplanting them outside, or for those who want to grow plants in a small space such as a balcony or patio. The portable design allows for easy transport and placement in different locations as needed. Some features that can be included in a portable seed germinator cum greenhouse might include adjustable temperature and humidity controls, built-in lighting, and a system for watering the plants. It could also be made from lightweight and durable materials to make it easy to move around.

Chapter 8

Conclusion

Greenhouses are designed to grow plants in their optimal state where the production is at its maximum. However, seeds require specific conditions to germinate, such as temperature, moisture, air, and light conditions. A seed germinator provides custom conditions to selected seeds in order for them to germinate. The seed germinator creates a micro-environment that provides the ideal conditions for seed germination, including temperature, humidity, and light conditions. The SGG unit combines both greenhouses and seed germinators, allowing any plant to be grown from its seeds. The integrated UI provides live monitoring of the plant and its states, ensuring that the plant is growing in optimal conditions. The UI can monitor the temperature, humidity, and light conditions of the germination chamber, and can store and analyze data on the germination process. This ensures consistent germination rates and uniform growth of the plants. Overall, the design behind a portable seed germinator combines the best of both worlds, allowing for optimal plant growth from seed to maturity.

MILE 2 PARK

A Mini Project Report

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Abstract

The proposed app is a parking management system that leverages GPS technology to track and manage parking spots. The system is designed to make parking easier and more convenient for drivers by providing real-time information on parking availability and allowing users to book parking slots in advance. The app will be accessible through in-car infotainment systems and mobile devices.

The app will use GPS coordinates to identify the location of parking spots and display them on a map. Users will be able to search for available parking spots nearby and book a slot in advance. When a user books a parking slot, the app will reserve that spot for the user and reduce the available slots count.

The system will also track when cars enter and leave the parking area. Each time a car enters the parking area, the app will increment the available slots count, and each time a car leaves, the app will reduce the count. This will help provide real-time information on parking availability.

Overall, the parking management system will provide a seamless and convenient parking experience for drivers while also improving the efficiency of parking management for parking lot owners.

Chapter 7

Conclusion And Future work

With the implementation of the smart parking system, patrons can easily locate and secure a vacant parking space at any car park deemed convenient to them. car park management system with geo-locator using maps shows that it is a viable solution for managing parking spaces in urban areas. the use of geo-location technology and maps provides real-time information on the availability of parking spaces and nearby parking areas, making it easier for drivers to find suitable parking spots. The system also aims to minimize human interaction, making parking safer and more efficient. Vehicle ingress and egress are also made more convenient with the implementation of hassle- free payment mechanism. Overall, the car park management system with geo-locator using maps has the potential to improve traffic management and reduce congestion in urban areas.

Numerical Analysis of Self-Aspirating Miniature Combustor

A PROJECT PHASE II REPORT

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ABSTRACT

In this study, an integrated miniature-ejector was proposed to provide a mixture of hydrogen and air or methane and air for micro-combustors. The effects of fuel jet velocity and geometrical parameters of the ejector on the entrainment ratio were numerically investigated. The results show that the incoming air mixes with the fuel jet flow. The entrainment ratio increases with an increasing fuel jet velocity due to the increased magnitude of negative pressure. Changing the position of nozzle from mixing section to away causes increases in entrainment ratio of the ejector. Because as the nozzle position is far away, the area of air inlet increases and thus the entrainment ratio increases. These variation tendencies have a close relationship with the negative pressure contours. The findings of this study provide a guidance to the optimal design of this kind of miniature-ejectors. The hydrogen fuel can be produced from diverse domestic resources with the potential for near-zero greenhouse gas emissions.

Keywords: Miniature-Combustor, Hydrogen, Flame.

CHAPTER 5

CONCLUSION

In the present study, the performance of an integrated micro-ejector, which was designed to provide a mixture of hydrogen and air for miniature combustors, was numerically studied. The entrainment ratios of the Miniature Combustor under various fuel jet velocities were investigated. In addition, the influence of each geometrical parameter of the ejector was explored. The main findings of this study were summarized below,

> The entrainment ratio increases with an increasing fuel jet velocity due to the increased magnitude of negative pressure.

> Changing the position of nozzle from mixing section to away causes increasesin entrainment ratio of the ejector. Because, as the nozzle position is far away, the area of air inlet increases so the entrainment ratio increases.

> Flame stability regime for combustor design 2 and 3 were found out.

AUTOMATIC SPEED CONTROL OF AN ELECTRIC VEHICLE USING RASPBERRY Pi

A PROJECT REPORT

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ABSTRACT

This undertaking focuses on naturally controlling vehicles at speed limited regions like schools, hospital zones and etc. These days the drivers drive vehicles at fast even in speed restricted regions without considering the security of people in general, the traffic police can't handle them with full impact. Likewise, it's anything but reasonable to screen these regions all through. This paper clears way for controlling the speed of the vehicles inside certain cutoff in limited zones without interference of the drivers. A RFID is utilized for this reason. The RFID reader is attached along with the vehicle and the RFID tag with these zones. These tags are programmed to convey a coded message when the reader comes in range. At whatever point the vehicles go into these zones their recipients will get this code and the speed of the vehicles is controlled consequently with the assistance of the microcontroller unit present inside the vehicle. The tags are put toward the start and the finish of the areas for which the speed should . be reduced.

Keywords: RFID (Radio Frequency Identification), Over speeding, Speed control, RF (Radio Frequency)

CHAPTER 7

CONCLUSION

After carefully evaluating the feasibility of multiple solutions for the existing problem, we assessed their potential effectiveness, practicality, and compatibility with our requirements. Following a thorough analysis, we made a deliberate decision to choose one solution that best addressed the problem at hand. With the chosen solution in mind, we proceeded to design and develop the necessary code. This involved creating algorithms and programming logic to integrate the RFID technology and Raspberry Pi Pico effectively. We considered various factors such as data communication, sensor integration, and control mechanisms to ensure a comprehensive and robust implementation. Once the code development was complete, we embarked on the next phase of the project, which involved fabricating a working model of the solution. This required assembling the required components, including RFID readers, Raspberry Pi Pico boards, and a demo vehicle. We meticulously connected and configured the hardware components to establish a functional system.

To validate the efficacy of our solution, we conducted extensive testing. This involved subjecting the working model to different predefined speed limits to ensure that the speed controlling system accurately responded and adjusted accordingly. We measured the system's performance, assessed its accuracy, and verified that it met the desired specifications and safety requirements. Throughout the entire process, we maintained a rigorous approach to ensure the highest standards of quality and reliability. We iteratively refined the design, code, and hardware to eliminate any potential issues or shortcomings. The result is a fully functional and tested solution that effectively controls the speed of the demo vehicle using RFID technology and Raspberry Pi Pico. By selecting, designing, developing, and thoroughly testing our chosen solution, we have successfully addressed the existing problem with a robust and reliable speed controlling system.

DESIGN AND FABRICATION OF BIOMASS STOVE WITH FORCED JET OF AIR

A PROJECT REPORT

submitted by

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This is to certify that the report entitled **"Design and Fabrication of Biomass Stove with Forced Jet of Air"** submitted by **AJITH JOHNY, JYOTHIS PRAKASH K, PRANAV PV,** and **ASRITH P** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

There are numerous negative effects resulting from the burning of biomass in open fires and in other conventional stoves. Biomass is used as a primary source of energy by 2.5 billion people each day. Emissions of particulate matter (PM) are of primary concern from the burning of biomass, as it causes harmful effects on both health and climate. These small particles can penetrate deeply into human lungs, causing asthma, COPD, and lung cancer; while also dispersing throughout the atmosphere, where the dark particles composed of soot/black carbon absorb solar radiation and contribute to the greenhouse effect. The modern biomass stoves are basically a combustion device which burns biomass fuel more efficiently with reduced emissions and offers cleaner cooking energy solutions. By incorporating jets of forced air into biomass stoves, combustion has been shown to potentially decrease harmful emissions, leading to a variety of designs in recent years. These have shown mixed success in terms of real-world performance, usability, and durability. The incorporation of forced jets of air at a low cost into the biomass stoves using an air blower with adjustable speeds housed in a low-cost metal body, which is heavily insulated to prevent the loss of heat in unwanted direction, improves the performance and efficiency of the burning process of the biomass stove.

Keywords : Particulate matter, Forced jet of air, Biomass stove

CHAPTER 13
CONCLUSIONS

- Our primary objective of designing and fabricating a biomass stove was completed successfully.

- The experiments that were conducted to determine the working and performance of the fabricated design yielded positive results. The graph drawn for water boiling test clearly indicates that less time is required for boiling a given sample of water and also higher flame temperature noted using the thermocouple indicates the improved and efficient burning process.

- These results indicated that with the addition of certain improvements, the biomass stove worked more efficiently as compared with the conventional products and proves to be a great product for household applications.

- With the introduction of forced jet of air using a blower arrangement, the fabricated biomass stove performed more efficiently which can be observed by evaluating the results obtained from the various tests conducted.

- Thus, we were able to design a product that met our objectives and requirements.

Experimental Investigation on application of pineapple leaf fiber, epoxy and glass fiber reinforced composite material for prosthetic sockets

A PROJECT REPORT

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III

ABSTRACT

Biodegradable fibers derived from natural plants are abundantly available and are currently considered as waste. This study aims at investigating the mechanical properties of pineapple leaf fiber epoxy and polyester reinforced thermoset composites as possible alternatives to the above-knee glass fiber reinforced prosthetic socket. Pineapple leaf fibers are treated with sodium hydroxide and acetic acid, and then added to epoxy resin and polyester at varying fiber loadings of 0, 20, 30, 40 and 50% to produce fiber reinforced composites using a compressed heating method. The mechanical properties of glass fiber polyester composite from existing studies are compared with pineapple leaf fiber polyester epoxy composites .Tests are then carried out for finding the tensile strength and yield strength of the composite and is compared with commonly used prosthetic leg material. Cost analysis study is then carried out to check the economic feasibility of this composite.

CHAPTER 6
CONCLUSION

- In conclusion, this study investigated the mechanical properties of composite materials comprising different compositions of glass fiber and pineapple fiber. The objective was to assess the impact of pineapple fiber addition on these properties.

- The findings revealed that the composite composition consisting of 70% glass fiber and 30% pineapple fiber displayed the highest tensile strength and impact strength among the tested compositions. This indicates that this particular combination exhibited the greatest resistance to external forces. Consequently, the addition of pineapple fiber to the glass fiber composition demonstrated potential for enhancing the tensile and impact strengths of the composite material.

- On the other hand, the composition comprising 100% glass fiber demonstrated the highest fracture toughness and flexural strength. This suggests that this composition possessed superior resistance to crack propagation and bending stresses, respectively. Therefore, while the incorporation of pineapple fiber led to improvements in tensile and impact strengths, the 100% glass fiber composition excelled in terms of fracture toughness and flexural strength.

- These results indicate that the mechanical properties of composite materials can be tailored by adjusting the composition of glass fiber and pineapple fiber. The selection of the optimal composition would depend on the specific requirements of the application, such as whether resistance to external forces or crack propagation is of greater importance.Further research and development could explore the potential of optimizing the composite composition by varying the proportions of glass fiber and pineapple fiber, or by introducing other reinforcing fibers or additives. This could lead to the development of composite materials with enhanced overall mechanical properties for various applications.

DESIGN AND FABRICATION OF AUTONOMOUS STREET VEHICLE

PROJECT REPORT

submitted by

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AJUL SASI MK	**(VML19ME012)**
ALAN KURIAKOSE	**(VML19ME015)**
SANJAL ALEX CHACKO	**(VML19ME051)**

Under the supervision of

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to

The APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the

Degree of

Bachelor of Technology

In

Mechanical Engineering

Department of Mechanical Engineering

Vimal Jyothi Engineering College, Chemperi

May, 2023

DEPARTMENT OF MECHANICAL ENGINEERING
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

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This is to certify that the report entitled **"DESIGN AND FABRICATION OF AUTONOMOUS STREET VEHICLE"** submitted by **Ajnas A K, Ajul Sasi MK, Alan Kuriakose, Sanjal Alex Chacko** to APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project carried out by him/her under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

An autonomous vehicle, or a driverless vehicle, is one that is able to operate itself and perform necessary functions without any human intervention, through the ability to sense its surroundings. The problem is that today's mobility-as-a-service ecosystem often doesn't do a good job covering intermediate distances, say a few miles. Hiring a taxi for such short trips proves frustratingly expensive, and riding a scooter or bike more than a mile or so can be taxing too many people. So getting yourself to a destination that is from 1 to 5 miles away can be a challenge. Yet such trips account for about half of the total passenger miles traveled. Many of these intermediate-distance trips take place in environments with limited traffic, such as university campuses and industrial parks, where it is now both economically reasonable and technologically possible to deploy small, low-speed autonomous vehicles with solar power.

CHAPTER 14

CONCLUSION AND FUTURE SCOPE

14.1 CONCLUSION

In the process of completing the project, we conducted a comprehensive literature survey to gather relevant information and insights. We successfully completed the design of the chassis, taking into account factors such as impact analysis and load analysis to ensure structural integrity. The chassis welding and fabrication works were carried out with precision, resulting in a robust and reliable chassis. The arduino programming work was successfully accomplished, enabling efficient control and operation of the vehicle. Additionally, various transmission system fabrication works were completed, ensuring the smooth transfer of power to the wheels. Notably, we implemented automatic steering systems and automatic braking systems, enhancing the vehicle's safety and maneuverability. Collectively, these achievements highlight the successful execution of key project tasks, leading to the development of a functional and advanced autonomous street vehicle.

14.2 FUTURE SCOPE

- Enhanced Safety Features:. This includes refining the sensor systems, developing more advanced collision avoidance algorithms, and integrating additional safety mechanisms
- Increased Efficiency: Continual improvements in battery technology will likely result in higher energy densities and longer ranges for electric vehicles. Also solar powered energy supply can be implemented
- Mobility-as-a-Service : This autonomous vehicle project could be part of a larger mobility-as-a-service framework, where passengers can access transportation services on-demand through a mobile application.
- Adaptation to Different Environments: This might include navigating complex urban landscapes, handling various weather conditions, or even operating in off-road or rural areas

DESIGN, ANALYSIS AND FABRICATION OF SEMI-AUTOMATIC MULTIPURPOSE WHEELCHAIR

PROJECT REPORT

Submitted by

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Bachelor of Technology
In
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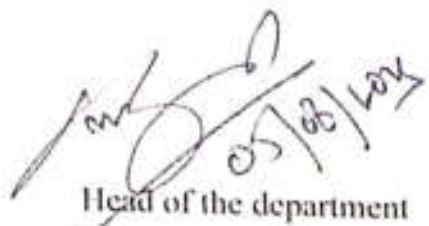
This is to certify that the report entitled **"DESIGN, ANALYSIS AND FABRICATION OF SEMI-AUTOMATIC MULTIPURPOSE WHEELCHAIR"** submitted by **Chinmay Nambiar C K, Ulsav Ullas, Vinshith V V, Vishnu M** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Assistant Professor	Assistant Professor	Associate Professor & HOD
VJEC, Chemperi	VJEC, Chemperi	VJEC, Chemperi

CHAPTER 10

CONCLUSION

- The subject matter was ultimately determined to be the evaluation and production of a versatile, semi-automated wheelchair. A comprehensive survey was conducted with the aim of identifying the current products available in the market, and various avenues for enhancement were subsequently revealed.
- Utilizing the advanced software of CATIA V5, the wheelchair's design was meticulously crafted. Complicated calculations were conducted to ensure the project's success. An extensive analysis was conducted, comparing various engineering materials suitable for the fabrication of the wheelchair. After careful consideration, it was determined that mild steel was the optimal choice for the project.
- Upon conducting an analysis utilizing the advanced ANSYS Workbench software, it has been determined that the safe working stress for mild steel is 156.38 MPa. Fortunately, the yield stress of mild steel exceeds this value at 250 MPa, thereby ensuring that the fabrication of the wheelchair is secure. Extensive testing was carried out, with a person weighing 80 kg, and it was found that the system allowed for safe reclining from the wheelchair to the bed and vice versa.
- Thus, the goal of this project was to design and develop a hybrid wheelchair model that can be quickly converted into a bed and vice versa. Using creative engineering and design, we were able to produce a practical and adaptable hybrid wheelchair model.
- The semi-automatic wheelchair cum bed with its slight forward motion is a highly beneficial and practical solution for individuals with limited mobility and their caregivers. By combining the functionalities of a wheelchair and a bed, this innovative design offers increased independence and comfort to users while alleviating the physical strain on caregivers. As technology continues to advance, such integrated mobility solutions hold great promise for enhancing the lives of individuals with mobility challenges.

DESIGN AND FABRICATION OF AUTONOMOUS FIRE FIGHTING ROBOT

PROJECT REPORT

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Bachelor of Technology

In

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This is to certify that the report entitled **"DESIGN AND FABRICATION OF AUTONOMOUS FIRE FIGHTING ROBOT"**submitted by **Anex Mathew Amal Joshy,Akash P.P,Rhishab Mohan** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the seminar work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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3

ABSTRACT

Artificial intelligent systems applied to robots have been a part of our work environment but it is not only limited to industrial automation. Recently, fire fighting robots are developed to mitigate disaster during fire accidents. In this work, fire fighting robotic system equipped with sensitive flame sensors, avoidance mechanism, alarm and SMS capability is developed, designed and fabricated. Circuit design integrates several components to a microcontroller to successfully carry out its programmed task. The structural design of the chassis is to accommodate all components for optimum performance. The codes were adjusted to see what was most efficient and fit the task at hand. The Fire Fighting Robot with Alarm System has its featured components such as Flame Sensor, Smoke Sensor, Ultrasonic Sensor, Piezo Speaker, LED, and Global System for Mobile Module and Mini Water Pump. Experimental results revealed that successful operation of the fabricated fire fighting robotic system take place. The optimal response time of the move stop was found to be 400 ms this suggests that the robotic system will start extinguishing the fire and automatically stop the pumping of water upon complete extinguishing of fire. Furthermore, the installed ultrasonic sensor successfully sent signal to the microcontroller to perform the avoidance mechanism of the robotic system from the obstacle. Likewise, the fire and smoke alarm detection as well as the SMS messaging capability was successfully activated upon the detection of fire and smoke. This successful fabrication of fire fighting robotic system will be a potential mechanism to fighting fire disaster.

Keywords: Fire Fighting Robot, Alarm System, Artificial Intelligent, Autonomous, Microcontroller-based Robotic System

CHAPTER 11
CONCLUSIONS

11.1 CONCLUSIONS

Here we successfully approached of modular design strategy was a good solution in implementing the firefighting robot to help people at the critical condition.The proposed robot can move in forward, backward,left, right and can stop also. Robot detects temperature,smoke and flame at the site where the robot exists. Thisrobot is help full in those areas where natural calamityand bomb explosions where occurred. Robot detects fire and extinguishes the fire with the help of sprinkler pump. For extinguishing that fire robot has to reach up to there and it moves towards the target with the obstacle avoidance property. In this way robot can detects obstacle. If fire is detected with the help of sensors,MCU operates the water pump mechanism through relaycircuit.

11.2 FUTURE WORK

Some of interfacing applications which can be made are controlling home appliances, robotics movements, Speech Assisted technologies etc. By making it GPS enabled, robot can be controlled from remote station also. A CO2 booster can be attached to make it powerful extinguisher. It can be further expanded with voice interactive system facility.

EXPERIMENTAL INVESTIGATION OF OVERALL HEAT TRANSFER COEFFICIENT OF SHELL AND TUBE HEAT EXCHANGER USING GREEN SYNTHESIZED COPPER OXIDE NANOFLUID

PROJECT REPORT
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This is to certify that the report entitled 'EXPERIMENTAL INVESTIGATION OF OVERALL HEAT TRANSFER COEFFICIENT OF SHELL AND TUBE HEAT EXCHANGER USING GREEN SYNTHESIZED COPPER OXIDE NANOFLUID' submitted by **Ajo Antony Mathew, Alen Moby, Andrin Sunny and Benedict J Sebastian** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by them under my guidance. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The idea of nanofluid as a heat transfer fluid has already been implemented in solar thermal systems, refrigeration systems as nano-refrigerant, vehicle cooling systems, electronic cooling systems, fuel cell cooling systems etc. But due to their scalability factor, stability issues and expensive nature, we require a decisive research-based approach. The present study utilizes leaf extract of Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda, Jatropha curcas for the green synthesis of CuO nanofluid. Nanoparticle present in the nanofluid was confirmed by visually detecting the colour change of the solution to pale green colour for the formation CuO nanofluid. The zeta-sizer analysis showed the particle size of CuO nanoparticles synthesized by Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda and Jatropha curcas leaf extract to be 328.2 nm, 1175 nm, 122.4 nm and 338.8 nm in diameter respectively. The UV-Vis absorption peaks of CuO nanoparticles synthesized by Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda and Jatropha curcas were observed at 240nm, 240nm, 238nm and 238nm wavelengths respectively. The CuO nanofluid synthesized using Jatropha curcas leaf extract used in the shell and tube heat exchanger was selected by its thermal properties such as thermal conductivity and viscosity. The Jatropha curcas leaf extract assisted nanofluids showed enhanced thermophyiscal properties compared to that of the other four-leaf extracts. The present study utilizes CuO nanofluid in the shell and tube heat exchanger to examine its thermal performance and compare it with water. The overall heat transfer coefficient for CuO nanofluid is enhanced compared to that of water by 16.5%, 24.77%, 30.90% and 32.9% at 36cc/s, 60cc/s, 72cc/s and 96cc/s mass flow rates respectively.

Keywords- Nanofluid, green synthesis, overall heat transfer coefficient, heat transfer rate

CHAPTER 9
CONCLUSION

This project report reveals the green synthesis of nanofluid and utilization of nanofluid in the shell and tube heat exchanger for the heat transfer performance as discussed below;

1) The nanofluid was synthesized using plant leaf extracts of Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda and Jatropha curcas.

2) The UV-Vis spectroscopy reveals the presence of CuO nanoparticles. The absorbance peaks of CuO nanoparticles synthesized using Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda and Jatropha curcas leaf extracts were observed at 240nm, 240nm, 238nm and 238nm wavelengths respectively.

3) Zeta-sizer confirms the average particle diameter CuO nanoparticles synthesized using Vitex negundo, Ocimum tenuiflorum, Justicia adhatoda and Jatropha curcas leaf extracts are 328.2, 1175, 122.4 and 338.8.

4) The nanofluid synthesized using Jatropha curcas leaf extract showed relatively higher thermal conductivity, density and viscosity compared to that of other nanofluids synthesized.

5) The overall heat transfer coefficient for CuO nanofluid is enhanced compared to that of base fluid by 16.5%, 24.77%, 30.90% and 32.9% at 36cc/s, 60cc/s, 72cc/s and 96cc/s mass flow rates respectively compared to that of base fluid.

DESIGN AND FABRICATION OF STAIRCASE CLIMBING MINI-FORKLIFT

A PROJECT REPORT

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MAY 2023

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This is to certify that the report entitled **"DESIGN AND FABRICATION OF STAIRCASE CLIMBING MINI FORK-LIFT"** submitted by **LIBIN SHAJI, ANAND K M, STALIN SANTO, BEN JOHNS PHILIP** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the seminar work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Designing and fabrication of staircase climbing fork-lift is a unique model which will be the machine-front of the forklift industry and in turn will serve as a great helpful for domestic application. The design of the device is simple enough for all kinds of people to operate and also it is safer as compared to other machines. This is the most suitable machine for carrying loads up to 200 kg in any terrain. The machine consists of a frame where all the necessary components are attached. A simple winch is used for lifting the loads and wheels are attached to the frame for movement. A staircase climbing attachment is used for staircase climbing.

Keywords: Frame, Wheels, winch, staircase climbing attachment

CHAPTER 11
CONCLUSION, LIMITATION AND FUTURE WORK

11.1 CONCLUSION

The literature survey provided some insight about the necessity of designing and fabricating a mini – forklift for domestic applications. The problem definition, aim and objectives are formulated based on the literature survey. A methodology and work plan were decided by understanding the steps required to accomplish the objectives. Five designs of the proposed mini – forklift was developed and pros and cons of each design was identified. Based on this final design and its dimensions were decided. Analysis of the platform as well as the whole structure of the mini – forklift was conducted. With regard to the analysis, the design found safe and material selection and cost estimation was completed. Components and materials were purchased and fabricated according to the design. The testing put some light on its limitations and corrected the same. The fabricated mini – forklift was working satisfactorily. Mini – forklift takes 192 seconds to lift the platform for 1m without weight on it and at the same time it takes 273 seconds to lift a weight of 15 kg. The linear movement of the forklift takes 6 seconds to reach 1m without weight on the platform and 7 seconds with a weight of 15 kg on the platform.

11.2 LIMITATION

- There is a misalignment of gear in lifting and lowering of load due to positioning error of the new shaft inside the motor. This was corrected by providing additional support and can be avoided in future designs.
- There is power loss during transmission in the right-side tri-wheel due to loose gear meshing.
- The mini forklift is not suitable for climbing stairs with height above 14 cm.

11.3 FUTURE WORKS

- More powered motors can be used to increase the load capacity and replacing wheel motors with speed controllable high-speed motors will help to save time and increase the efficiency.
- The mini forklift can be fully automated or a remote-controlled system can be implemented.
- Solar panels can be used to make a more sustainable energy efficient product.
- Increasing the lifting height will make this product useful in the construction industry.

Heat Transfer Studies on Shell and Tube Heat Exchanger Using Green Synthesized Silver Nanofluid.

PROJECT REPORT

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ABSTRACT

Increased energy demand has led to a continued rise in global temperatures above pre-industrial levels, with the release of toxic gases and radiation causing harsh climatic conditions. Therefore, developing a durable and highly efficient thermal system is essential to solve this problem. Heat exchanger is one of the most important thermal devices in the world. Improving the capacity of heat exchangers with conventional methods is limited as it will increase the pressure drop. Scientific research on various nanofluids to improve the performance of heat exchangers has received considerable attention in recent years due to their excellent properties. The unique morphology, optical properties, stability, high surface area, low toxicity, and enhanced thermophysical properties make green nanofluids viable candidates for improving the performance of thermal systems. In this research, the preparation of silver nanoparticles using green synthesis method and the mechanism of heat transfer in shell and tube heat exchanger using silver nanofluids will be evaluated.

Keywords: Heat exchanger, Silver nanofluid, Shell and Tube heat exchanger.

CHAPTER 11
CONCLUSIONS

This project report reveals the green synthesis of nanofluid and utilization of Ag nanofluid in the shell and tube heat exchanger for the heat transfer performance as discussed below;

1. Ocimum tenuiflorum leaf extract showed good reduction potential for Ag nanoparticle.
2. The UV-Vis spectroscopy reveals the presence of Ag nanoparticles. The absorbance peaks of Ag nanoparticles were observed at 470nm wavelength.
3. Zeta-sizer confirms the average particle diameter of 399.5 nm Ag nanoparticle.
4. The Ocimum tenuiflorum leaf assisted nanofluid showed relatively higher thermal conductivity and viscosity compared to that of base fluid.
5. The overall heat transfer coefficient for Ag nanofluid with flow rates 36cc, 60cc, 72cc and 96cc are 219.677 W/m^2k, 447.234 W/m^2k, 599.189 W/m^2k & 941.121 W/m^2k respectively which is more than the values of water.

PLC CONTROLLED AUTOMATIC BOTTLING SYSTEM FOR SMALL SCALE INDUSTRY

A PROJECT REPORT

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i

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iii

ABSTRACT

The aim of our project is to design, develop and monitor "Automatic bottle filling system using PLC". This work provides with a lot of benefits like low power consumption, low operational cost, less maintenance, accuracy and many more. This project is based on Industrial automation and is a vast application used in many industries like milk industries, chemical, food, mineral water and many industrial manufacturers. Filling is the task that is carried out by a machine and this process is widely used in many industries. In this project, the filling of the bottle is controlled by using a controller known as PLC which is also the heart of the entire system. For the conveyor system, a dc motor has been selected for better performance and ease of operation. A sensor has been used to detect the position of the bottle. In our project we have used less number of systems hence the overall cost has been reduced to an extent. Ladder logic has been used for the programming of the PLC, which is the most widely used and accepted language for the programming of the PLC. This system helps the small-scale industries and small organizations to use a standalone automated filling and packing system.

Keywords: Automation, Easy technology, Low cost and smooth operation.

CHAPTER 14

CONCLUSION

The main purpose of PLC in automation is used to control the whole system. With the world increasingly moving towards automation due to its various benefits, efforts should be made to make this technology more accessible to various small-scale industries. It can eventually help them in diversifying the fruits of the endeavour to the general public and contribute to the overall growth of the country's economy.

Automation systems are used to increase productivity, which in turn brings economic progress. The cost of installation is not cheap but it can efficiently run for a long period of time. The performance, flexibility and reliability is based on the investment. A PLC based control system was applied to the automatic liquid filling station previously specified and the performance was measured. The entire system is more reliable, time saving and user friendly.

The manual filling process has many shortcomings like spilling of water while filling it in bottle, equal quantity of water may not be filled, delay due to natural activities of human etc. This problem faced by small industries compels us to take up this project. Our project is meant for small industries. It aims to eliminate problem faced by small scale bottle filling system. With this system that operates automatically, every process can be smooth and the process of refilling can reduce workers cost and operation time. The system operates by the program that designed to do the operation.

SMART WALKING STICK FOR VISUALLY IMPAIRED

PROJECT REPORT

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CERTIFICATE
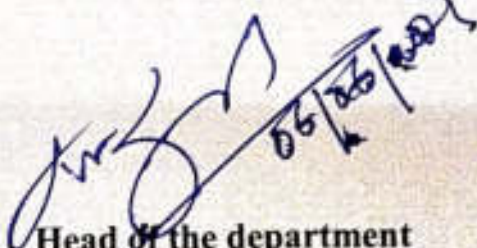
This is to certify that the report entitled "**SMART WALKING STICK FOR VISUALLY IMPAIRED**" submitted by **ALAN VYSHNAV P, ANJU M, NAVIYA GANESHBABU, PRANAV K V** to the APJ AbdulKalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the seminar work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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2

ABSTRACT

Detecting obstacles is always a difficult task for visually impaired people when they move. External guidance such as human, trained dogs, or white cane, hence, a blind stick plays an essential role in the decision making of blind people. Due to its low cost, the white cane is often used by visually impaired people. However, traditional white canes cannot accurately detect obstacles above the knee level or at a distance beyond the white cane's length. Our goal is to create an affordable, smart blind stick that can help blind people to navigate. The device consists of an ultrasonic sensor and infrared sensors to detect obstacles in front of the blind user and a vibration motor + buzzer for alarm. One of the biggest challenges for blind people when they move inside the house is to go up and downstairs. We aim to address the challenge by integrating into the blind stick a function that alarms users in the staircase presence. Moreover, this device also has a built-in GPS module that allows the device's and its user's location to be tracked and displayed on a smartphone app, a desirable feature for many families of blind people. Ultrasonic and infrared sensors allowed the smart blind stick to detect obstacles at a distance from 5 to 150 cm from the user. Moreover, with a built-in A9G module, it was easy to identify the stick-on smartphone location, which made the searching location of a blind user much easier. This project presented a design and implementation of an intelligent blind stick for blind people with several advantages, including low cost, capability to detect obstacles above knee level, staircase detection, location tracking via smartphone, etc However, more tests need to be conducted to determine its accuracy and reliability in real-world settings.

CHAPTER 8

CONCLUSION

The Smart Stick acts as a basic platform for the coming generation of more aiding devices to help the visually impaired to navigate safely both indoor and outdoor. It leads to good results in detecting the obstacles on the path of the user in a range of three meters. This system offers a low-cost, reliable, portable, low power consumption and robust solution for navigation with obvious short response time. Though the system is hard-wired with sensors and other components, it's light in weight. Blynk software is able to store and detect the position of the user. Arduicane application is used for navigation and cane recovery. Further aspects of this system can be improved via wireless connectivity between the system components, thus, increasing the range of the ultrasonic sensor and implementing a technology for determining the speed of approaching obstacles.

SENSOR OPERATED AUTOMATIC REVERSE BRAKING SYSTEM

PROJECT REPORT

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DYUTHIN E (VML19ME033)

FAZAL UL HAQUE (VML19ME034)

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Under the supervision of

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To

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In partial fulfillment of the requirements for the award of the Degree

Of

Bachelor of Technology
In
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MAY 2023

DEPARTMENT OF MECHANICAL ENGINERING
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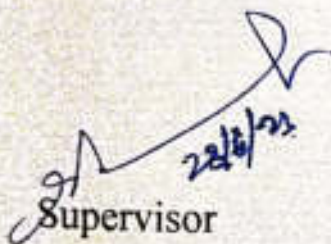
CERTIFICATE

This is to certify that the report entitled " **SENSOR OPERATED AUTOMATIC REVERSE BRAKING SYSTEM**" submitted by **SOURAV SAJEEVAN, DYUTHIN E, FAZAL UL HAQUE, ADARSH P R** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the Project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The aim is to design and develop a control system based an intelligent electronically controlled automotive braking system is called **"SENSOR OPERATED AUTOMATIC REVERSE BRAKING SYSTEM"**. This Braking system is consists of Ultrasonic transmitter and Receiver circuit, Control Unit. The Ultrasonic sensor is used to detect the obstacle. There is any obstacle in the path, the ultrasonic sensor senses the obstacle and giving the control signal to the braking system. The pneumatic braking system is used to brake the system.

CHAPTER 11

CONCLUSION

The laboratory set-up demonstrating blind spot detection and reverse braking system was successfully developed as per the design. This system is flexible to be used in any commercial vehicle. Use of multiple alert devices such as buzzers, LEDs and ultrasonic sensors makes the system more secure to prevent any accidental situations. Cost is low and can be implemented along with the current vehicle system. Tests have been carried out to check the proper working of set-up as per the design. The result for reverse braking system shows that complete braking is done if any obstacle is sensed at that distance to avoid collision. Similarly, tests were also conducted for blind spot detection.

RETROFICATION OF CONVENTIONALBIKE TO ELECTRIC BIKE

A PROJECT PHASE- II REPORT

Submitted by

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DEPARTMENT OF JYOTHI MECHANICAL ENGINEERING VIMAL ENGINEERING COLLEGE, CHEMPERI

CERTIFICATE

This is to certify that the report entitled **"RETROFICATION OF CONVENTIONAL BIKE TO ELECTRIC BIKE"** submitted by **Alok Babu, Aswin M, Anugrah Jeevan, Vijay Krishna A.K** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Mechanical Engineering is a bonafide record of the project work carried out by him under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The paper's principal objective is to retrofit a typical Internal Combustion Engine (ICE) two-wheeler to a pure Electric bike. One of the pre-eminent causes of air pollution is the tailpipe effusions in ICE. Instead of discarding the existing ICE, transforming them to Battery Electric Vehicle (BEV) will mitigate the initial cost and EVs' carbon footprint. Here, Bajaj Pulsar 220 was retrofitted with a 2KW BLDC motor & 72V / 60Ah Li-ion battery. Design alteration was executed to accommodate the new electric drivetrain without affecting the bike's structural stability. This paper shows the procedure involved in retrofitting a motorcycle. A regional drive cycle is introduced to understand the road conditions of India. Besides, reverse engineering-based powertrain modeling was used to analyze the power requirements for various drive cycles. The benefits of converting an ICE-based bike to an electric bike is also discussed towards the end.

CHAPTER 7

CONCLUSION

Project focused on the retrofitting of a conventional bike into an electric bike, adhering to the ISIE (Indian Society of Innovative Engineers) standards. The project aimed to transform a petrol-powered bike into an environmentally friendly and energy-efficient electric vehicle. Throughout the project, various hardships were encountered, highlighting the complexity and challenges associated with retrofitting. One major challenge was sourcing suitable components and ensuring compatibility with the existing bike structure. Obtaining the required expertise and technical knowledge to seamlessly integrate the electric components posed another hurdle. Additionally, optimizing the performance and range of the electric bike while maintaining safety standards required meticulous planning and testing. Despite these challenges, the project team persevered, employing systematic research, engineering principles, and teamwork to overcome obstacles. They successfully installed the necessary components, including the electric motor, battery pack, controller, and charging system, while adhering to the ISIE standards for electric vehicle retrofitting. The project not only showcased the team's technical skills but also demonstrated their commitment to sustainability and innovation in the automotive sector. By retrofitting a conventional bike to electric, the project aimed to contribute to reducing carbon emissions and promoting eco-friendly transportation options. Through this project, valuable insights were gained into the intricacies of electric vehicle conversion, including the integration of electrical systems, optimization of performance, and adherence to regulatory standards. The team's dedication, problem-solving abilities, and perseverance were instrumental in successfully completing the project. Overall, the retrofitting project on converting a conventional bike into an electric bike, developed in accordance with ISIE standards, proved to be an enriching and transformative experience. It showcased the team's capabilities and laid the foundation for future advancements in the field of electric vehicle technology

SLOPE STABILITY ASSESSMENT AND STABILIZATION BY SOIL NAILING USING GEOSTUDIO

A PROJECT REPORT

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of

Bachelor of Technology

In

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Department of Civil Engineering

Vimal Jyothi Engineering College

Chemperi

June 2023

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ACCREDITED BY JEI, NBA & NAAC • ISO 9001 2015 CERTIFIED
AFFILIATED TO KTU • APPROVED BY AICTE

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the report entitled 'Slope stability assessment and stabilization by soil nailing using GEOSTUDIO' submitted by Aswini P (VML19CE038), Gayathri N (VML19CE052), Haritha K V (VML19CE054), Sangeeth Krishna N V (VML19CE085), Vishnu Dineshan (VML19CE102) to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Slope failure is one of the major geological phenomenon that happen due to the topography and weather conditions which cause wide range of ground movements. Slope failures are often preceded by the advancement of fractures through the soil near the crest of the slope.

The site choosen for our study is Kottiyoor in Kannur district. Kottiyoor is one of the most landslide prone area in Kannur. Heavy rainfall and low shear strength of the rocks have played a major role in facilitating these slides.

In this study the slope is stabilized by soil nailing technique. Soil nailing system is one of the major preventive method to overcome slope failure. It is an in-situ reinforcement technique by passive bars which can withstand tensile forces, shear forces. Soil nailing consist of passive reinforcement of existing ground by installing closely spaced steel bars. In this paper soil nailing system was studied in terms of inclination, spacing, length, diameter of nails to determine the most appropriate stabilizing values for effective stabilization of soil slope using Geostudio software. Geostudio can effectively analyse both simple and complex problems for a variety of slip surface shapes, pore-water pressure conditions, soil properties, and loading conditions. Major purpose of conducting stability analysis is to measure the safety and present the most economical design of slopes such as excavation, landfills, embankments, and road cuts. Stability of the slope is analysed by determining the factor of safety. When FOS is less than 1.5 the slope is considered as unstable.

Key words: Slope failure, soil nailing, stabilization, Geostudio

CHAPTER 10

CONCLUSIONS

The value of factor of safety obtained from the slope stsability analysis is 0.901. The value is less than 1.5, therefore the slop is considered unstable. Suitable mitigation should be provided to make the slope stable. The stability of a soil slope with soil nailing is studied with GeoStudio Software, and the conclusions are as follows:

- The soil nail inclination at 60° has the maximum value of factor of safety which is 1.712 and the factor of safety tends to decrease after an optimum inclination of soil nail. The result indicated that the ideal soil nail inclination should be 50°,60°,70°and 80°.
- The safety factor increases first and then converges to a certain value with the increase of soil nail length. Increasing the soil nail length to increase the stability of the slope is feasible but limited. Factor of safety increases with increase of soil nail length and we have attained the maximum value of 1.655 for 15m soil nail length.
- The safety factor decreases with increase of soil nail horizontal spacing, and the curve starts steep and later flattens. Horizontal spacing with 1m has the maximum value of factor of safety which is 1.771.

NUMERICAL ANALYSIS OF SETTLEMENT OF CENTRALLY AND ECCENTRICALLY LOADED CIRCULAR FOOTING ON GEOGRID- REINFORCED SAND USING PLAXIS 2D

A PROJECT REPORT

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June 2023

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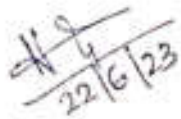AFFILIATED TO KTU • APPROVED BY AICTE

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NAAC ACCREDITED

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the report entitled "**Numerical Analysis of Settlement of Centrally and Eccentrically Loaded Circular Footing on Geogrid- Reinforced Sand Using PLAXIS 2D**" submitted by **Anagha KP (VML19CE019), Anto Ronald Reji (VML19CE027), Dwithin Dileep (VML19CE048), Krishnapriya C (VML19CE061)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Geosynthetics have been proposed for use as a method to increasing the strength of soil medium. Our investigations are based on the load settlement behavior of centrally and eccentrically loaded circular footing. Most of the works are related to vertical centric loading, a few works have also done on eccentrical loading. But a detailed study for eccentrical loading of circular footing in not done. Our investigation is to study the behavior of settlement of circular footing over sand bed. The test has been conducted for both reinforced and unreinforced foundations under eccentric and centric loads resting on sand bed. Also analyse effect of number of geogrid layers in both central and eccentric loading. From the literature review it is noted that ultimate bearing capacity of foundation depends on the different type of loading and depth of geogrid, for achieve this numerical simulation of circular footing in reinforced sand bed is carried out using Plaxis 2D software. The Mohr-Coulomb model was utilized to model the sand and load-settlement curves were obtained numerically.

Keywords: *Circular footing, Eccentric load, Geogrids*

CHAPTER 9

CONCLUSIONS

Here we have analysed the settlement of a circular footing resting on sand bed, for analysing thesettlement a central load and different set of eccentric loads (0.25m, 0.5m, 1m) are given to the footing. For our analysis various journals related to our topic was referred. The project based on the software analysis was conducted. The data validation is nearly obtained. From the literature review various parameter of sand, footing and geogrid were analysed. Model was createdfrom the software PLAXIS 2D.

Here for the improvement of the soil geogrid is used. The improvement of soil will affect the various factors such as depth of geogrid, spacing of geogridand number of geogrids etc. Here a central load is applied to footing and determine the settlement in both reinforced and unreinforced condition. After placing geogrid at a certain depth 12% of settlement get reduced in central loading condition. In the same way we giving different set of eccentric loads to the footing and analysing the settlement in both reinforced and unreinforced condition. In eccentric loading condition at an eccentricity of 0.25m almost 15% of settlement get reduced after placing geogrid at a depth. Similarly at an eccentricity of(0.5m) 16% of settlement get reduced and an eccentricity of (1m) 12% of settlement get reduced after placing geogrid at a depth of 1.26m.

Here effect of number of reinforcements isalso analysed, when number of geogrids increases there is a decrease in settlement, after placing each layer of geogrid settlement get reduced. In centric loading condition the settlementcan reduced as we increase the number of geogrid layer up to 4. In central loading after placingfirst layer of geogrid almost12% of settlement reduced, similarly placing two, three, and four layers of geogrid almost 15%, 19% and 20% of settlement get reduced.

It has been observed that the optimum value of number of geogrids is three for eccentric loading in circular footing.If we place fourth layer of geogrid in eccentric loading the depth is greater than its significant depth so there is no significant reduction in settlement After placing each layer of geogrid in different set of eccentric loading the eccentricity of 0.25m,0.5m and1m settlement get reduced.

In an eccentricity of 0.25m placing first layer of geogrid almost 15% of reduction insettlement, similarly we are placing second and third layer of geogrid almost 17% and 21% of settlement reduced. In an eccentricity of 0.5m and 1m there is a reduction in settlement is observed, in 0.5m eccentricity we are placing three layers almost 16%,19% and 21% reduction in settlement is observed and in 1m eccentricity we are placing three layers of settlement almost 12%,15% and 17% of reduction in settlement is observed. Here concluding that placing the geogrid is an effective method for the reduction of settlement in a footing in both centric and eccentric loading.

ANALYSIS AND DESIGN OF A MULTI STORIED RESIDENTIAL APARTMENT FOR DOCTORS AT PARIYARAM MEDICAL COLLEGE USING ETABS

PROJECT REPORT

Submitted by

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AKHILA M (VML19CE014)

HRUTIKA M R (VML19CE055)

LAKSHMI NIVEDITHA (VML19CE063)

MUHAMMED RAZEEL A K (VML19CE071)

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Civil Engineering

Department of Civil Engineering

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

JUNE 2023

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of ACCREDITATION
ACCREDITED

NAAC ACCREDITED

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the report entitled **'Analysis and Design of Multi Storied Residential Apartment for Doctors at Pariyaram Medical College Using Etabs'** submitted by **Abhinav P M (VML19CE004), Akhila M (VML19CE014), Hrutika M R (VML19CE055), Lakshmi Niveditha (VML19CE063), Muhammed Razeel A K (VML19CE071)** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Head of the department

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(Office Seal)

ABSTRACT

The process of determining the behavior of a structure under specific load combinations is known as analysis. Design is the process of determining the structure's proper requirements. Manual structural analysis and design would take a long time. Any structure's study and design can be completed quickly using software. The main goal of this project is to plan, analyze and design a residential apartment using ETABS (Extended Three-Dimensional Analysis of Building System). ETABS isa piece of engineering software that is used to analyze and design structures. Manual analysis of frames for vertical loads are done using substitute frame method, analysis for lateral loads using approximate method (cantilever method, etc.) and design is done as per IS 456:2000 and SP 16 guidelines. Drawings and detailing are done using AutoCAD. The results from the software and the manual method are compared.

Keywords: ETABS, Substitute frame method, Portal frame method, AutoCAD.

CHAPTER 10

CONCLUSION

This project is mainly concentrated with the analysis and design of multi-storied commercial building with all possible cases of the load combinations as per IS Code using ETABS-2018 meeting the design challenges are described in conceptual way. Also, it helped to understand and analyze the structural problem faced by the construction industry and helped to clearly understand and use different software like AutoCAD and ETABS. The structure is designed based on the ETABS, and the theory of limit state method which provides adequate strength, serviceability, and durability besides economy.

While comparing manual calculation and ETABS software, the calculations are not same there are slight differences. Though the use of the software offers saving in time, the calculations are not appropriate. So, we should take the value on safer side than manual work. The design of RCC frame members like beam and column was done using ETABS. The analysis and design were done according to standard specifications to the possible extend. The various difficulties encountered in the design process and the various constraints faced by the structural engineer in designing up to the architectural drawing were also understood. Also, it provides us a fast, efficient, easy to use and accurate platform for analyzing and designing structures.

To understand the basic principles of structures by understanding the standard Indian code. This facility for the implementations of more effective & professional engineering software. Further in case of rectification it is simple to change the values at the place where error occurred and the obtained results are generated in the output. If any beam fails, the dimensions of beam and column should be changed and reinforcement detailing can be produced. The various difficulties encountered in the design process and the various constraints faced by the structural engineer in designing up to the architectural drawing were also well understood.

EXPERIMENTAL AND NUMERICAL STUDY

OF PAVEMENT USING GEOGRID

A PROJECT REPORT

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NAAC ACCREDITED

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This is to certify that the seminar report entitled **"Experimental And Numerical Study Of Pavement Using Geogrid"** submitted by **"Amal P V (VML19CE018), Aswith P Sasidharan (VML19CE039), Malavika K Jithendran (VML19CE065), Sandhra Madhukumar (VML19CE083)"** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Civil Engineering, is a bonafide record of project work carried out by him under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Silt sand falls under the category of a mixer of fine and coarse aggregate. The soil taken possess a lower CBR value which is difficult to be used for the construction of roads. In this study, stabilization of subgrade has been done by the introducing geosynthetics as layers. Geogrid layers are the geosynthetics used. Engineering properties such as shear strength and CBR value and indexproperties such as Atterberg limits and grain size distribution of the soil specimen are evaluated.CBR Test value obtained for control sample is 4.65%, when the geogrid was placed at h/3 and 2h/3heights from the base, where h is the height of the CBR mould, CBR values were obtained as 6.03%and 7.95% respectively. Hence the strength of the subgrade soil has been increased with the use ofgeogrids.

In the software model by inputting the soil properties and comparing the settlement results of the soil with and without geogrid is being determined using the software PLAXIS 2D. Different geosynthetic are modeled with the finite element program, PLAXIS 2D, to examine the modeling results. By application of Geogrids as different layers of the road, the amount of settlement decreases significantly. It can be seen that the most reduction occurs in application of three geogrids in soil profile though the total displacement decreases by increasing the number of geogrids. On the other hand, it can be concluded that application of geotextiles does not affect the settlement regardless of the layer numbers. Moreover, it can be concluded that the order of soil layers does not have any significant effect onthe settlement rate.

Keywords: Geogrids, PLAXIS 2D, Pavement thickness, Embankment, Settlement.

CHAPTER 7
CONCLUSIONS

Based on the investigation made in this study, it may be concluded that:

- Settlement is reduced to maximum while placing the geogrid at the bottom of the embankment.
- The settlement due to embankment load is reduced when introducing geogrid compared with plain soil.
- In this study we concluded that depth of geogrid, no. of geogrid will affect the settlement characteristics of foundation soil below the embankment.
- Pavement is designed as upon soil subgrade CBR value obtained.
- The CBR method as per IRC 37-2018 is most appropriate method than other methods.
- Here, we considered rural roads for our project therefore we can take a traffic in msa upto 20.

Considering the applied analysis, finite element software – PLAXIS 2D is capable of modeling the infrastructure of the paths appropriately. Analysis was performed using plane strain model. In plane strain, the strains out of plane are assumed as zero, therefore the depth of the model is set as zero. In these models, geogrid is applied in different depths, different layers and different geosynthetic numbers according to the placement suitable solution to strengthen the sub-base and foundation in clay and sandy soils. The results obtained when using geosynthetic material in the foundation and sub bases of the roads are presented as follows:

At the moment of the load transferred by the two tires of the vehicle, the first layer of clay soil was found to have less settlement than the first layer of sandy layer. After application of geosynthetics in different layers of the road, the safety count decreased significantly. There is no effect on the use of single layer geotextiles and geogrids in models. In the use of two-layer geogrid in models, the total displacement shows a decrease of 4.926% compared to the use of no geosynthetics. Application of geosynthetics seem to have no effect on the settlement reduction in all the cases.

REUSE OF LAUNDRY WASTE WATER FROM WASHING MACHINE

A PROJECT REPORT

submitted by

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ARYASREE RAMACHANDRAN (VML19CE035)

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in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Civil Engineering

Department of Civil Engineering

Vimal Jyothi Engineering College

Chemperi

JUNE 2023

VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA
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AFFILIATED TO KTU • APPROVED BY AICTE

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

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This is to certify that the report entitled **'Reuse of Laundry Waste Water from Washing Machine'** submitted by **Aparna Ramesh (VML19CE032), Aryasree Ramachandran (VML19CE035), Neha Saseendran(VML19CE073), Rithin T Ramesh (VML19CE079)**, to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Washing laundry is one of the most widespread housework in the world. Discharge of this untreated water can lead to environmental damage as well as it can pose a threat to public health. It is vitally important to treat waste water in order to save water as a precious source and protect the environment from pollution. Biological wastewater treatment methods have been considered as a feasible and cost-effective method for the treatment of surfactants. Also, chemical methods are used. We use natural coagulant, pectin from orange peel and calcium oxide. In order to remove particular matters like threads, stains, etc. microscreens are used. For achieving almost completed condition, activated carbons are also used in this treatment system.

Keywords: laundry wastewater, calcium oxide, pectin.

CHAPTER 8

CONCLUSIONS

Water is a precious element and preserving it is necessary. Chemicals especially detergents which cause serious effect in fertility of soil and thus crop productivity. The setup that are executed for the treatment of laundry water to reusable by using natural coagulants, pectin and moringa seed powder, lime shell and coconut charcoal. By the discussion about the obtained results and observations showed that treatment system provides better overall efficiency in detergent removal. Water quality parameters such as Nitrates, cod, hardness, turbidity and pH removed with better efficiency. Phosphate and chloride removal efficiencies are comparatively low. Addition to this, by visual and physical observation after treatment, this unpleasant and darkened water changed to odourless and colourless water. Besides, all parameters have reached within the acceptable limits as per IS code. Thus, the laundry water has changed to reusable water. Hence this water can be used for irrigation, cleaning and washing. Since materials used for treatment are natural substances hence this treatment is cost effective.

DEFLUORIDATION OF WATER BY HERBAL BED

A PROJECT REPORT

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to

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in partial fulfillment of the requirements for the award of the Degree

of

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JUNE 2023

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This is to certify that the report entitled 'Defluoridation of Water by Herbal Bed' submitted by Krishnendh Kv (VML19CE062), Meghna Anish C (VML19CE067), Muhammed Hadil Harshan Kp (VML19CE070), Simnadas P (VML19CE090) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Water is the source of life and a vital condition for life to exist and for economic progress to occur. Fluoride is naturally found in many groundwater sources. Fluoride is known to have both beneficial and detrimental effects on health, depending on the dose and duration of exposure. As per IS 10500: 2012 and IS 3025 (Part 60): 2008, we can see that the fluoride that should be within the limit is 1.0 mg/L, and the permissible limit is 1.5 mg/L. Consumption of higher-level concentrations of fluorides exceeding 1.5 mg/L may cause mottling or brownish discoloration of teeth (dental fluorosis), and excessive consumption over long periods may even cause bone problems, including the crippling of bones (skeletal fluorosis). Tooth decay may result from drinking water with a fluoride content below 1 mg/L; the ideal range is 0.7–1 mg/L. Fluoride may enter the body of a human through several different pathways, including water, food, air, medication, and cosmetics. Among these, drinking water is the most common source. In our project, we introduced *Tinospora cordifolia* (Chittamruthu or Chittamrit), *Ocimum tenuiflorum* (Krishna Tulsi, Basil leaves), and *Vetiver zizanioides* (Ramacham), which is a versatile medical plant from the ancient periods through holistic scripts for defluoridation purposes. We improved the research by introducing the design and construction of a tank that included these herbal beds partitioned by a cloth for fluoridation purposes. Aggregates are utilized for water filtering, while charcoal is implemented for purification.

Keywords: Tinospora cordifolia, Ocimum tenuiflorum, vetiver zizanioides, Fluoride.

CHAPTER 6

CONCLUSIONS

Fluoride levels should be between 1 and 1.5mg/L, according to IS 10500: 2012 and IS 3025 (part 60): 2008. Defluoridation procedures include Reverse osmosis, distillation, nanofiltration, absorption and others. Among them, the introduction of natural herbs is the more practicable and effective approach. *Tinospora cordifolia, Ocimum tenuiflorum* and *Vetiver zizanioides* are the main Ayurvedic plants discussed here. These plants have been proven to be beneficial and can be utilized in defluoridation procedures. Fluoride elimination was 27.78% in the research study. A tank is setup for defluoridation along with filtration and purification. It is found that the water collected from the experiment has been defluoridated from 1.8 to 1.2 mg/L, and it is also it is seen that the other parameters of the water have also been decreased compared to the initial reading. The conclusion is that the fluoride concentration is within the limit that is acceptable for drinking purposes under the IS specification.

SEISMIC PERFORMANCE OF TUBE STRUCTURE WITH REGULAR FRAME STRUCTURE

PROJECT REPORT

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ABSTRACT

Now a day there is need for multi-storied building due to overcrowding of cities. Multi-storied buildings are used for office, complex, residential flats, public centre's etc. These multistoried buildings can be transformed into tall buildings in order to achieve more floor space but occupy less land space. Over the past few years tubular structures are becoming a common feature in tall buildings .The innovation of high-strength structural materials, as well as the introduction of predominant development methods, gave a lift in the development of tall structures. As the height of the structure increases, they become progressively vulnerable to wind load and seismic load. Multi- storied building construction is increasing rapidly throughout the world. Tall buildings more effectively utilize land compared to low-rise buildings. As the height of the building increases the importance of the lateral load resisting system becomes more relevant than the gravity load resisting structural system. Many structural systems are recently introduced to improve the structural performance of tall buildings. Tube structure is one of them. They resist lateral loads like wind and seismic forces. These lateral load resisting systems let the building behave like a hollow cylindrical tube cantilevered perpendicular to the ground.

Keywords: High rise buildings, Seismic analysis, static method, Tube structure, STAAD.Pro, connection

CHAPTER 8
CONCLUSIONS

• From the various steel tubed structures designed and analyzed, the optimized tube structures from case 1 and case 2 orientations are selected and connection design were provided to beams ,columns and bracings. This idealized tube structure is statically analyzed and a maximum displacement of 3.990mm is obtained with a weight of 162.788kN.

• Steel framed structure has a maximum displacement of 1.508mm with an actual weight of 1899.827kN with a material takeoff of 1262.291kN and 637.537kN.

• According to IS800:2007 maximum allowable deflection L/325 for the structure is 36.92mm. Maximum lateral displacement obtained 3.990 is within the limit and the actual weight of the structure is 162.788kN which is more economical than steel framed structure .

• Both Tube Structures strongly resists earthquake forces as compare to Conventional Moment resisting frame and tube Structures strongly support the earthquake design philosophy .

• Thus it is clear that for a fixed volume of steel, the steel tubed structures show a better displacement (lateral) value under the action of seismic loads with low structural weight than steel framed structure .Therefore tubed structure patterns can be employed for providing the desired lateral rigidity in a structure under seismic loading.

COMPARATIVE ASSESSMENT OF THE MECHANICAL BEHAVIOUR OF GFRP, BFRP AND CONVENTIONAL STEEL BARS EXPOSED TO AGGRESSIVE ENVIRONMENTAL CONDITIONS

A PROJECT REPORT

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This is to certify that the report entitled "**Comparative Assessment of the Mechanical Behaviour of GFRP, BFRP and conventional Steel bars Exposed to Aggressive Environmental Conditions**". submitted by **Abishek (VML19CE006), Adarsh V V(VML19CE006S), Aju Joseph K(VML19CE012),Alan Ronald Reji(VML19CE0018), John Mathew(VML19CE057)**, to the APJ Abdul Kalam Technological in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in civil engineering is a bonafide record of the project work carried out under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Deterioration Of steel in reinforced concrete structures produces loss of reinforcement area and damage in the surrounding concrete. As a consequence, increases in deflections, crack widths and stresses may take place, as well as a reduction of the bearing capacity. Hence the mechanical durability of the reinforcement bar should be analysed before its application. Usually steel bars are used as the reinforcement in concrete structures. When the structures are subjected to aggressive environmental conditions, the steel bars deteriorate at a faster rate. A new innovative solution to this problem has been the development of FRP bars. In this project we target a comparative study of Glass Fiber Reinforced Polymer(GFRP), Basalt Fiber Reinforced Polymer(BFRP) bars against conventional steel rebars exposed to aggressive environmental conditions.

Keywords: Deterioration of Reinforcement, Steel Reinforcement, Glass Fiber Reinforced Polymer, Basalt Fiber Reinforced Polymer

CHAPTER 6
CONCLUSION

The experimental investigation on the mechanical and durability properties of FRP bars was carried out after exposure to the alkaline, saline and tap water solutions at room temperature and the following findings can be made from this work:

- Initially, TMT bars have great tensile strength and shear strength compared to GFRP and BFRP bars. However there is considerable reduction in strength properties of steel bars because of the exposure to aggressive environmental conditions.
- The rate of reduction in tensile strength is more in ordinary TMT bars. For TMT bars, there is considerable reduction in strength properties due to the immersion in the solutions. This indicates the resistance of FRP bars against chemical and physical attacks.
- Out of two other solutions, the alkaline solution (AS) had the greater impact on the strength of bars.
- In neutral environmental conditions, it should be feasible to use TMT bars as reinforcement, which is economical.
- If the environment in which the structure is subjected is aggressive, it is more feasible to use FRP bars since it has high resistance against chemical and physical attacks.

EFFECTS OF SYNTHETIC LEACHATE ON COCONUT SHELL BIOCHAR AND COMPARATIVE STUDY ON ACTIVATED CHARCOAL

A PROJECT REPORT

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This is to certify that the report entitled **"Effects of Synthetic Leachate on Coconut Shell Biochar and Comparative Study on Activated Charcoal"** submitted by **Antus Sunny (VML19CE028), Anura Balakrishnan (VML19CE030), Karthik K (VML19CE059), Treesa Wilson (VML19CE099)** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Now a day's water scarcity is a burning issue. The world's water resources are being deteriorated due to the continuous discharge of a large number of organic and inorganic contaminants. Due to the increase in population, the demand for water also increases. Here comes the necessity of waste water treatment and removal of contaminants, thus making it a potable water. This project focuses on applications in waste water treatment using biochar to remove various pollutants such as heavy metals, chemical and organic compounds. Biochar is a lightweight black residue, made of carbon and ashes, remaining after the pyrolysis of biomass. As an emerging sorbent with great potential, biochar has shown significant advantages such as the broad sources of feed stocks, easy preparation process, and favourable surface and structural properties. Heavy metals in the water environment mostly come from anthropogenic activities such as smelting, mining, and electronic manufacturing effluents. Biochar has been suggested to be used for heavy metals removal from contaminated water. Biochar can be directly used in water and wastewater treatment as a sorbent for contaminants removal. The physical and chemical properties of biochar depend primarily on the types of feedstock and pyrolysis conditions i.e., temperature, residence time, reactor type and heating rate. Though the biochar has an excellent capability to adsorb heavy metal ions from metal contaminated solutions, this capacity is relatively lower in comparison with other known bio sorbents such as activated carbon. Hence there are several approaches to modify the biochar. The contaminated soil and water is treated with biochar and conduct batch method and column method to determine the removal efficiency of contaminants. The results of tests are to be compared and determine the efficiency of prepared biochar over other sorbents. By this comparison, it enables to utilize the biochar instead of the costly bio-sorbents.

Keywords: Biochar, waste water treatment, pyrolysis, heavy metals, sorbents

CHAPTER 10

CONCLUSION

In conclusion, the project focused on evaluating the removal efficiency of coconut shell biochar for nitrate and phosphate contaminants in contaminated water. The project demonstrated that coconut shell biochar has the potential to effectively remove nitrate, while it is less effective in removing phosphate from contaminated water. The biochar exhibited significant adsorption capacity for these contaminants due to its porous structure and high surface area. The project found that the removal efficiency of nitrate and phosphate was influenced by various factors such as contact time, revolutions per minute, initial contaminant concentration, bed height and biochar dosage. Overall, the project contributes to the understanding of coconut shell biochar as a promising adsorbent for the removal of nitrate from water. Through our extensive experimentation and analysis, we have determined that the removal efficiency of nitrate is more effective compared to phosphate using coconut shell biochar.

- Effects on nitrate column method

A taller biochar bed accommodate a higher concentration of contaminants and potentially provide a higher adsorption capacity as compared to that of small bed height. The synthetic water treated with PAC and GAC shows high variation from initial pH, whereas much variations where not observed for synthetic water treated with CSBCs.

- Effects on phosphate column method

CSBC doesn't show much effectiveness for phosphate removal. This may be due to the presence some other phosphate compounds present in the coconut shell biochar.

- Effects on nitrate batch method

Higher revolutions enhances the adsorption efficiency. The removal efficiency is increased with longer contact times and higher biochar dosages.

- Comparison of CSBC with PAC and GAC

Our findings indicate that coconut shell biochar demonstrates notable effectiveness in removing contaminants during both the batch and column absorption treatment methods. These results suggest that coconut shell biochar could potentially outperform powdered and granular activated charcoal in terms of removal efficiency. However, further comprehensive analysis and experimentation are required to ascertain and validate these promising results.

LAND USE AND LAND COVER MAPPING OF KANNUR DISTRICT

PROJECT REPORT

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DEPARTMENT OF CIVIL ENGINEERING

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This is to certify that the report entitled **Land Use and Land Cover Mapping of Kannur District** submitted by **Muhammad Rasy PC** (VML19CE069), **Razeen Moosa V** (VML19CE078), **Sreelakshmi E** (VML19CE094), **Thanwi Rajeev** (VML19CE096) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The terms land use and land cover are often used interchangeably, but each term has its own unique meaning. Land cover refers to the surface cover on the ground like vegetation, urban infrastructure, water, bare soil, etc. Identification of land cover establishes the baseline information for activities like thematic mapping and change detection analysis. Land use refers to the purpose the land serves, for example, recreation, wildlife habitat, or agriculture. Stress on natural resources has been increasing daily due to steady population increase. In particular misuse of lands constitute a significant potential threat. Effective planning strategies have been developed in order to reduce stress on productive lands. Land Use Land Cover (LULC) maps of an area provide information to help users to understand the current landscape. LULC maps also help us to study the changes that are happening in our ecosystem and environment. If we have an inch-by-inch information about Land Use/Land Cover of the study unit we can make policies and launch programs to save our environment. Annual LULC information on national spatial databases will enable the monitoring of temporal dynamics of agricultural ecosystems, forest conversions, surface water bodies, etc. on annual basis. The knowledge of land use and land cover is important for many planning and management activities as it is considered as an essential element for modelling and understanding the earth feature system. Land Use Land Cover change detection helps the policy makers to understand the environmental change dynamics to ensure sustainable development. Hence, LULC feature identification has emerged as an important research aspect and thus, a proper and accurate methodology for LULC classification is the need of time. In this we will be doing the LULC mapping of Kannur district in the state of Kerala between the year 1991 and 2022.

KEYWORDS: *LULC, Land use land cover, Change detection, Landsat images, Urban sprawl*

CHAPTER 6

CONCLUSION

Land Cover indicates the physical land type such as forest or open water whereas Land Use documents how people are using the land. LULC is vital to investigate Land Use patterns and helping forecast future sustainable land management. Updated and precise LULC Maps are essential for sound planning, sustainable development, environmental monitoring, worldwide change, the estimation of forest degradation and also for monitoring of temporal dynamics of agricultural ecosystem, surface waterbodies etc.

This comprehensive study is done to examine the LULC Changes in Kannur District between 1991 and 2022. The LULC Maps were prepared by supervised classification in ENVI 5.8 using Landsat 5 (TM), Landsat 8 (OLI/TIRS) and Landsat 9 (OLI/TIRS) satellite data downloaded from USGS Earth Explorer site for the years 1991, 1998, 2013, 2018 and 2022. Area calculation is done using ArcMap 10.8 and Excel and area covered by each LULC Classes in respective year is found.

Table 6.1 LULC Distribution of Kannur District between 1991 and 2022

SL NO.	LULC CLASS	LULC CLASS AREA (%) IN YEAR				
		1991	1998	2013	2018	2022
1	Barren Land	43	1	1	2	1
2	Urban Area	6	6	17	22	27
3	Vegetation	49	90	80	75	69
4	Water Body	2	2	2	2	2

The study demonstrates that vegetation is the primary Land Use in the studied region. The maximum change is noticed from vegetation area which has increased to about 41% between 1991 and 1998 and then declined about 21% during 1998 and 2022. In case of Urban Area, it remains the same during 1991 and 1998 and raised by 21% between 1998 and 2022. The result shows that the vegetation is the major contributor in the growth of urban area, as the urban area has expanded mostly over these land use class. The presence of water body has also a significant contribution in urban area expansion.

While considering Barren Land it has a drastic decline during 1991 and 1998, which then has only slight changes between 1998 and 2022. At last, taking Water Body in consideration, it remains the same in area contributing only 2% of entire area between 1991 and 2022.

The study of Land Use Land Cover Change of Kannur District reveals that the development pattern is Irregular.

SEEPAGE AND SLOPE STABILITY
ANALYSIS OF KARAPPUZHA EARTHEN DAM
USING GEOSTUDIO SOFTWARE

A PROJECT REPORT

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This is to certify that the project report entitled 'Seepage And Slope Stability Analysis of Karappuzha Earthen Dam Using GEOSTUDIO Software' submitted by 'Sreeshma Govindan (VML19CE095), Sandra N (VML19CE084), Jishnu Santh (VML19CE056), Abhiram J.M (VML19CE005)' to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose

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ABSTRACT

Earth-fill dams are simple structures which are able to prevent the sliding and overturning of dams because of their self-weight. Sometimes the dams are designed as zoned core that is composed of three vertical zones including central impermeable core and two permeable shells on either side of the core.

A failure of earth dam is attributed to the following: hydraulic failure, seepage failure, piping through dam body and structural failure due to earthquake. Among this seepage of water is one of the major problems which has an effect on hydraulic structures. In Earthen dams built on pervious foundations, water flows through the voids present in the soil from high hydraulic head to low hydraulic head. It causes seepage failure in earthen dams. Seepage failure accounts for 30% of the total failures. So, it is necessary to minimise the seepage within the embankment to increase the stability and thereby increasing the life of structure.

The main purpose of this study is to find out the seepage loss through the Karappuzha earthen dam located at Wayanad district. The seepage through earthen dam can be find out by different method or by using various softwares. The SEEP/W software (program) which is a subprogram of the GEOSTUDIO software, is used to cater for seepage problems through porous soil media and SLOPE/W is used to determine the slope stability.

Key words: Seepage, SEEP/W, SLOPE/W, Earthen dam, GEOSTUDIO

CHAPTER 9

CONCLUSION

The seepage analysis of Karappuzha earthen dam was conducted using GEOSTUDIO software. The seepage analysis was conducted using the SEEP/W program of GEOSTUDIO and the seepage rate at the toe of the embankment is determined.

- ❖ For determining the seepage rate, the embankment soil characteristics such as water content, density and cohesion are determined and the properties of sand filter and rock toe such as water content, permeability, cohesion, angle of internal friction are collected from the Karappuzha irrigation project office.

- ❖ It is found that the seepage rate at the toe is $9.7012838 \times 10^{-09}$ m^3/sec and to check whether this value is within the safe limit, slope stability analysis of dam is conducted by using the SLOPE/W program.

- ❖ The factor of safety value is determined here and it is about 3.781. The required factor safety for an earthen dam to remain stable against seepage failure is about 1.5. The obtained value is greater than required.

- ❖ Large value of factor of safety is due to the provision of sand filter, rock toe and toe drain at the downstream side of dam. Hence the dam is safe against seepage failure and no additional control measures are required. It indicates that the problems due to heavy flood occurred in that area in recent years has not caused any threatening damages to the structure.

STABILISATION OF EXPANSIVE SOIL USING STEEL SLAG AND HYDRATED LIME

PROJECT REPORT

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This is to certify that the report entitled **"STABILIZATION OF EXPANSIVE SOIL USING STEEL SLAG AND HYDRATED LIME"** submitted by Aarya K (VML19CE001), Adarsh M (VML19CE007), Ananya Dineshan (VML19CE023), Aswathi Anil (VML19CE036) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degreeof Bachelor of Technology in CIVIL ENGINEERING is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose.

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ABSTRACT

Expansive soil has a property of swelling in the presence of water and shrinkage during drying. Such kind of soils are problematic for engineers during construction. If strength of soil is poor, then stabilization is normally needed. Therefore these soils are sometimes stabilized or replaced with stronger soil material so as to improve the strength. Steel slag is a waste by-product of the steel industry. The recycling usage of steel slag is limited due to the mutative chemical compositions it contains and its low cementation. In this investigation, the composition adjustment and activation of steel slag were studied to produce an optimal slag-based composite with improved cementation efficiency. The use of steel slag improves the bearing capacity. By adding steel slag and hydrated lime in varying percentage can improve the characteristics of expansive soil. Laboratory tests were undertaken to study the swelling and strength characteristics of expansive soils stabilized with lime, steel slag and a combination of both. Lime and steel slag were added to expansive soil at same ranges. Index property, compaction, California Bearing Ratio (CBR), Unconfined Compression Strength (UCS), free swell tests were performed on soil samples. For the investigated admixture lime-steel slag; the amount of lime and steel slag added 0%, 5%, 10%, 15%, 25%. Many studies have been done to avoid such failures by enhancing the characteristics of expansive soil. The above findings improve the reuse efficiency of steel slag, and also using hydrated lime help to improve the lateral load-bearing performance of soil. In this study it is identified that by the use of steel slag and hydrated lime, the soil properties and strength properties can be improved.

Key words: *Steel slag, expansive soil, stabilization, hydrated lime.*

CHAPTER 6

CONCLUSIONS

In this project, we have concentrated on the effect of using steel slag and hydrated lime as an additional product in the modification of expansive soil. The hydrated lime and steel slag is mixed and is used as a stabilizing agent in expansive soil in order to understand the difference in adding them through experimental tests. These products are added in the soil to study the improvement in the soil and understand the effect of these products in the expansive soil.

The observations made after the experimental procedures are summarized as follows:

i. The properties of the materials such as expansive soil, steel slag and hydrated lime is determined and studied.

ii. The liquid limit of the soil decreases with the addition of the mix of hydrated lime and steel slag when added in different percentages.

iii. Plastic limit of the soil decreases in the further increase of stabilization of soil.

iv. Plasticity index also decreases in the addition of the stabilizing agents.

v. The free swell index of the expansive soil decreases at a low level as the by products used for the stabilization of soil is added.

vi. As the products are added in the expansive soil the Maximum moisture content increases at certain percentage and the Optimum moisture content decreases gradually.

vii. The CBR value of the soil increases and eventually improves the strength of the expansive soil used.

The conclusions made in the experimental tests done are noted above and it is identified by this project that we conducted that using steel slag and hydrated lime as a stabilizing agents in the expansive soil increases the strength of the soil and improves the shear resistance stability. This experimental study showed the decrease of the swelling properties of the expansive soil and an alternative material to be used to make this soil of more use.

SOIL STABILIZATION BY POWDERED PLASTIC BOTTLES

A PROJECT REPORT

submitted by

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DHEERAJ HARIDAS (VML19CE045)

DHEERAJ SUNITH (VML19CE047)

FRINTO ANTONY (VML19CE051)

to

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in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Civil Engineering

Department of Civil Engineering

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

JUNE 2023

VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

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NBA NATIONAL BOARD of ACCREDITATION ACCREDITED

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DEPARTMENT OF CIVIL ENGINEERING VIMAL JYOTHI

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This is to certify that the report Entitled **"Soil stabilization by powdered plastic bottles"** submitted by **Chandana K, Dayal K, Dheeraj Haridas, Dheeraj Sunith, Frinto Antony** to the APJ Abdul Kalam Technological in partial fulfilment ofthe requirements for the award of the Degree of Bachelor of Technology in civil engineering is a bonafide record of the project work carried out by under my guidance and supervision. This report inany form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The best method for improving the physical properties of soil like; increasing strength such as shear strength, bearing capacity, etc. is the process of Soil Stabilization. This procedure includes addition of the admixtures into the soil in order to increase the properties of the soil. The admixtures such as; cement, lime and waste materials like fly-ash, phosphor gypsum, etc. are very expensive materials. The cost of these kind of admixtures is increasing day by day as the technology is improving around every corner of the society. In recent technology and research, utilization of waste materials likes plastic, bamboo etc. The widely used thing in today's society is the plastic. The disposal of these plastic wastes causes the ecological hazards, a big threat to our surroundings but we have a solution, we have found in this research work that the waste plastic is a useful thing in stabilization. In the modern world, there is a scarcity of a good soil. Since the low availability of unstabilized soils makes it difficult for the construction. To avoid problems like these, we will have to overcome them, for this we will have to add suitable admixtures to the soil. This research work includes the addition of the suitable admixtures such as plastic waste like bottles. These plastic waste materials like plastic bottles are used in this project. For this to happen the plastic bottles are cut down into small strip like pieces. The addition of these small strips in the soil by different percentage and conduct tests such as liquid limit, plastic limit, compaction test, CBR test etc. Then soil becomes stabilized that is increasing the load bearing capacity of the soil and also strength properties such as shear strength with a controlled compaction. Soil stabilization by using waste plastic bottles which significantly enhance the strength properties of the soil.

Keywords: Soil stabilization, Plastic bottles, Shear strength, Bearing capacity

CHAPTER 5
CONCLUSIONS

By suggesting the use of plastic bottle powder in black cotton soil for reinforcing processes, this project intends to improve the strength of expanding soils while also reducing the environmental pollution. Thus, the research could serve three goals. The first is to develop a good way of disposing of plastic waste and construction waste; the second is to enhance the performance of black cotton soil; and the third, and most importantly, is to make the process economical by using waste. The following findings are obtained based on the analysis and interpretations: The plastic bottle powder material proved to be a good reinforcement when used in different proportions for the replacement of dryweight of soil by improving the engineering properties of black cotton soil; use of plastic bottle powder in 5% has led to a considerable increase in the strength compared to the natural black cotton soil. An optimum percentage of 15% increased the strength of soil. By the mixing of this material an optimum mixing ratio with 5% plastic bottle powder haveincreased the strength of soil.

STABILIZATION OF SOIL USING

MARBLE DUST AND PVC WASTE

A PROJECT REPORT

submitted by

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NITHIN JOSE (VML19CE075)

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VISMAYA MOHAN K (VML19CE104)

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This is to certify that the seminar report entitled **"Stabilization of Soil Using Marble Dust and PVC Waste"** submitted by **"Anandhu P V (VML19CE022)**, **Nithin Jose (VML19CE075)**, **Pranav E P (VML19CE077)**, **Vismaya Mohan K (VML19CE104)"** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of Degree of Bachelor of Technology in Civil Engineering, is a bonafide record of project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

In geotechnical engineering, the practice of modifying the properties of weak soils with waste marble materials has become increasingly essential. The impact of this waste material on the soil properties has received a lot of attention in recent years. Soil stabilization is the alteration of soil to enhance their physical properties. The process of soil stabilization helps to achieve the required properties in a soil needed for the construction work. Weak soil generally swells and shrinks depending upon the presence of moisture content. Stabilization can increase the shear strength of a soil and control shrinkage properties of a soil and thus improving the load bearing capacity of a soil. Engineers face many problems because of such soil. Clayey soils do not possess sufficient strength to support the loads of the structure coming on them during construction or service life of the structure. Hence, this type of soil needs to be stabilized.

Nowadays, the disposal problem of industrial waste is rapidly increasing. Such, hazardous waste is affecting the environment as well as land. The most important part of a road pavement is subgrade soil and its strength. If strength of soil is poor, then stabilization is normally needed. Subgrade is sometimes stabilized or replaced with stronger soil material so as to improve the strength. PVC waste is a by-product of the plastic industry. The use of PVC waste improves the bearing capacity. The basic physical properties including free swellingratio, California bearing ratio, and unconfined compressive strength are to be evaluated to understand the engineering performance and mechanism of modified expansive soils.

Keywords: PVC waste, Marble dust, expansive soil, stabilization

CHAPTER 5

CONCLUSIONS

By suggesting the use of second waste of plastic along with Marble dust in black cotton soil for reinforcing processes, this project intends to improve the strength of expanding soils while also reducing the environmental pollution. Thus, the research could serve three goals. The first is to develop a good way of disposing of plastic waste and construction waste; the second is to enhance the performance of black cotton soil; and the third, and most importantly, is to make the process economical by using waste products from the industry.

The following findings are obtained based on the analysis and interpretations: The second waste of plastic bottle material proved to be a good reinforcement when used in different proportions for the replacement of dry weight of soil by improving the engineering properties of black cotton soil; use of second plastic waste in 2% has led to a considerable increase in the strength compared to the natural black cotton soil. Adding marble dust to soils not only reduces the accumulation of waste materials but it may also be an efficient method of improving the long-term performance of weak soils and protect the environment. An optimum percentage of 4% increased the strength of soil

By the mixing of these two materials an optimum mixing ratio with 4% marble dust and 2% plastic waste have increased the strength of soil further than that of the untreated soil.

ANALYSIS OF SHEAR WALL IN HIGH RISE UNSYMMETRICAL BUILDING USING ETABS

PROJECT REPORT

submitted by

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This is to certify that the report entitled **Analysis of Shear Wall in High Rise Unsymmetrical Building Using Etabs** submitted by **Farhana C V(VML19CE049), Gokulnath M(VML19CE053),Theertha Surendran K V(VML19CE097),Vishnu M V (VML19CE103)** to the APJ Abdul Kalam Technological in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in civil engineering is a bonafide record of the project work carried out by the under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Recent days, structures are becoming more and more slender and susceptible to sway and hence dangerous in the earthquake. After many practical studies it has shown that use of lateral load resisting systems in the building configuration has tremendously improved the performance of the structure in earthquake. Shear walls are mainly flexural members and usually provided in high rise buildings to avoid the total collapse of the high-rise buildings under seismic forces. In present project, an unsymmetrical building with 20 stories has been modelled using software Etabs. The study includes to evaluate the seismic vulnerability of RC buildings without shear wall, shear wall at corners, shear wall at boundaries, shear wall Parallel to X and Y directions. These models have been analysed by using Response Spectrum method for moderate and severe seismic zones for soft soil condition.

Keywords: shear wall, seismic analysis, Etabs, Seismic zones

CONCLUSIONS

It is studied that maximum displacement and storey drift values are found to be higher in seismic Zone V for all the cases, when correlated to Zones II,III and IV which indicates that displacement can be reduced by making the structure with uniform stiffness.

It is observed that the building with shear wall placed at boundary also corner gives better results in terms of Displacement, Story Drift and Base Shear. So that it is concluded that building with uniform stiffness proven better results.

The Base Shear is increasing by adding shear wall due to increase in seismic weight of the building. It is noticed that the parameter base shear shown maximum value in Zone V when correlated with other seismic zones.

The time period of the building as per IS 1893:2016 (Part-1) is given by the formula $Ta = 0.075\ h^{0.75}$ and it is 1.61s without infill's which doesn't match with any of the time periods indicates that the building is safe from resonance effect.

The ASCE 7 standard specifies that buildings are considered "flexible" if they have a fundamental period greater than 1 second. Here Time Period is lesser in Boundary condition as compared to others so that shear wall at boundary will act as a rigid structure.

REUSE OF LAUNDRY WASTE WATER FROM WASHING MACHINE

A PROJECT REPORT

submitted by

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This is to certify that the report entitled 'Reuse of Laundry Waste Water from Washing Machine' submitted by Aparna Ramesh (VML19CE032), Aryasree Ramachandran (VML19CE035), Neha Saseendran(VML19CE073), Rithin T Ramesh (VML19CE079), to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Vimal Jyothi Engineering College	Vimal Jyothi Engineering College	Vimal Jyothi Engineering College
Chemperi, Kannur	Chemperi, Kannur	Chemperi, Kannur

ABSTRACT

Washing laundry is one of the most widespread housework in the world. Discharge of this untreated water can lead to environmental damage as well as it can pose a threat to public health. It is vitally important to treat waste water in order to save water as a precious source and protect the environment from pollution. Biological wastewater treatment methods have been considered as a feasible and cost-effective method for the treatment of surfactants. Also, chemical methods are used. We use natural coagulant, pectin from orange peel and calcium oxide. In order to remove particular matters like threads, stains, etc. microscreens are used. For achieving almost completed condition, activated carbons are also used in this treatment system.

Keywords: laundry wastewater, calcium oxide, pectin.

CHAPTER 8

CONCLUSIONS

Water is a precious element and preserving it is necessary. Chemicals especially detergents which cause serious effect in fertility of soil and thus crop productivity. The setup that are executed for the treatment of laundry water to reusable by using natural coagulants, pectin and moringa seed powder, lime shell and coconut charcoal. By the discussion about the obtained results and observations showed that treatment system provides better overall efficiency in detergent removal. Water quality parameters such as Nitrates, cod, hardness, turbidity and pH removed with better efficiency. Phosphate and chloride removal efficiencies are comparatively low. Addition to this, by visual and physical observation after treatment, this unpleasant and darkened water changed to odourless and colourless water. Besides, all parameters have reached within the acceptable limits as per IS code. Thus, the laundry water has changed to reusable water. Hence this water can be used for irrigation, cleaning and washing. Since materials used for treatment are natural substances hence this treatment is cost effective.

MORPHOMETRIC AND PCA BASED WATERSHED PRIORITISATION FOR THE ANJARAKANDY RIVER BASIN USING GEOSPATIAL TECHNOLOGY

PROJECT REPORT

Submitted by

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DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the report entitled **"Morphometric and PCA based Watershed Prioritisation for the Anjarakandy River Basin Using Geospatial Technology"** submitted by **Ms. Anagha Premarajan V , Mr. Ansaf CP , Ms. Anupriya A , Ms. Nila KP , Mr. Zaidan Azad** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Watershed management is an essential part to achieve sustainability. In the case of large watersheds, management and conservation practices cannot be implemented efficiently over the entire area due to inadequate human resources and financialsupport. Therefore, prioritizing the watersheds and implementation of management practices would be a viable technique to ensure sustainability within the watershed.

10 microwatersheds of Anjarakandy river basin were prioritized based on morphometric and Principal Component Analysis (PCA), in order to examine the effectiveness of morphometric parameters in watershed prioritization. The traditional methods of determination of morphometric parameters are time consuming, expensive and requires huge labor. However, the process becomes easier, cheaper and faster with the advent of Geographical Information System (GIS) and remote sensing technologies. A comparison has been carried out between the results achieved through applying the two methods of analysis (morphometric and PCA). Afterwards, suitable measures are proposed for soil and water conservation.

Keywords: *Prioritization, Morphometric Analysis, Principal Component Analysis, GIS, RS*

CHAPTER 6
CONCLUSIONS

In this project, we employed Geographical Information System (GIS) technology to extract morphometric parameters of watersheds, and prioritization was performed using XLSTAT software. The objective was to assess and prioritize watersheds based on their characters, leveraging the power of geospatial analysis and statistical techniques.

Through the application of GIS, we successfully obtained essential morphometric parameters. The prioritization of watersheds was accomplished through the utilization of XLSTAT software, employing Principal Component Analysis (PCA). By applying PCA, we reduced dimensionality of the dataset and identified the most influential morphometric parameters driving watershed prioritization. The analysis facilitated the identification of critical areas and aided in decision-making process related to watershed management.

The findings of our study revealed significant variations in the morphometric characteristics among the watershed analyzed. Certain watersheds exhibited high drainage density, indicating increased susceptibility to erosion and sedimentation. The results of the prioritization analysis can have crucial implications for watershed management and planning. Decision makers can utilize this information to allocate resources effectively and focus conservation efforts on areas identified as high priority. Additionally, the prioritized watersheds can guide the identification of suitable locations for water resource development projects and for the implementation of erosion control measures.

In conclusion, the integration of GIS technology for morphometric parameter extraction and XLSTAT software for prioritization has provided valuable insights into watershed characteristics and facilitated the identification of high priority areas. This project highlights the effectiveness of geospatial analysis and statistical techniques in supporting watershed management and decision making process.

DESIGN OF RCC T BEAM BRIDGE USING ASTRA Pro SOFTWARE AT PARIPPUTHODE AND COMPARITIVE COST ANALYSIS WITH STEEL GIRDER BRIDGE

PROJECT REPORT

Submitted by

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In

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ENGINEERING

CERTIFICATE

This is to certify that the report entitled **Design of RCC T Beam Bridge at Paripputhode and Comparitive Cost Analysis with Steel Girder Bridge** submitted by **Megha K** (VML19CE066), **Sonisha K** (VML19CE092), **Aromal S** (VML19CE033), **Yadhu Krishnan K R** (VML19CE105) to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Generally, a bridge is defined as the structure providing passage over an obstacle without closing the way beneath. Modern bridges include girder, plate girder, and box girder bridges are the type of beam bridges. Types of construction could include having many beams side by side with a deck across the top of them, to a main beam either side supporting a deck between them. They are easy to construct, less costly than other types of bridges, and can be built quickly. Additionally, the roadway of a beam bridge can be easily maintained and repaired. The advantage of constructing T beam bridges is that T-beams are always more economical than rectangular beams. In fact, it is the least expensive among the common beam shapes except for box girders used in bridge decks. T-beams have a lesser volume of concrete. Also, they reduce the floor to floor height since the flange is already part of the slab. T-Beam Bridge is the combination of superstructure (Deck slab with longitudinal girders & Cross girders) and Substructure (piers, abutment and foundations). The design of T-beam is based on IRC codes 112,8 and IS 457.The moment is calculated for different wheels of different vehicles such as from military tank to normal 4 wheels and maximum moment was calculated. Based on that the design is further carried out using ASTRA Pro software. Further the cost estimation of that design is done through the software and compared the cost of construction of RCC T beam bridge with steel girder bridge having same design properties.

Keywords: T beam, girder, deck slab

CHAPTER 7

CONCLUSION

In this project, we have done the design and cost estimation of RCC T beam bridge at Paripputhode in Aralam panchayath. The structural design of the bridge components such as deck slab, longitudinal girders, cross girders, pile, pile cap, abutment and retaining wall was completed using IRC loading. Several Indian Standard codes were referred for the purpose of standard design and safety considerations.

The analysis and cost estimation of RCC T beam bridge and steel girder bridge was done using ASTRA pro software and results were compared. The cost difference between both of the bridges was 2,948,478 Rs. It was concluded that using steel as construction material in girder increased the cost of construction of steel girder bridge. So the construction of RCC T beam bridge will be more economical.

SETTLEMENT ANALYSIS OF MULTIGEOGRID REINFORCED EMBANKMENT USING PLAXIS 2D

PROJECT REPORT

Submitted by

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DAYA S RAM (VML19CE044)

DHEERAJ MOHAN (VML19CE046)

FIDA HAMEED (VML19CE050)

to

The APJ Abdul Kalam Technological University

In partial fulfillment of the requirements for the award of the Degree of

Bachelor of Technology

in

Civil Engineering

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

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This is to certify that the report entitled **"EVALUATION OF MULTIGEOGRID REINFORCED EMBANKMENT USING PLAXIS 2D"** submitted by **Ms. ANSHA KURIAN(VML19CE026)**, **Ms. DAYA S RAM(VML19CE044)**, **Mr. DHEERAJ MOHAN(VML19CE046)**, **Ms. FIDA HAMEED(VML19CE050)** to the APJ Abdul Kalam University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by him under my/our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Date : 26-05-2023

ABSTRACT

Ground improvement technique has an important role for construction. Engineers are facing problems in infrastructure construction in soft clay areas due to excessive soil settlement and low bearing capacity that leads to treacherous problems in the structure to damages and collapse. Foundation soil present below the embankment is also shows excessive settlement. Therefore, this study aims to investigate the deformation characteristics of soil below the embankment and analysing the settlement characteristics when placing geogrid on embankment. The whole experiment conducted is analysed through "PLAXIS 2D" software. Ground improvement is an important part in construction. The study analyses the settlement when soil in reinforced and unreinforced state. Parametric study is conducted on geogrid reinforced embankment and analysed the settlement characteristics. Settlement characteristics depends on geogrid depth, number of geogrid layer, tensile strength of geogrid, and foundation soil.

Keywords: Geogrid, PLAXIS 2D, Tensile strength, Settlement, Ground improvement technique

CHAPTER 6

RESULTS AND CONCLUSIONS

In present study analysed that the settlement due to embankment load is reduced when introducing geogrid. Geogrid can impart some shear strength Compared to soil geogrids are strong in tension. So, it allows them to transfer load to a larger area of soil. Hence the settlement reduced in geogrid reinforced embankment.

Settlement is reduced maximum when we place the geogrid at the bottom of the embankment. All the loads of the embankment are transferred at the bottom of the embankment when placing the geogrid at bottom it will hold the all loads and provide an extra shear strength to the soil and reduce the settlement.

- Settlement is reduced with increasing the number of geogrid layer. Geogrid itself have a shear strength when it is added to soil shear strength as well as bearing capacity of soil increases hence stability of soil increases. No of geogrid layer increases then shear strength of soil increases hence provide more stability.

- In this study we concluded that tensile strength of geogrid, depth of geogrid, no of geogrid and properties of geogrid will affect the settlement characteristics of foundation soil below the embankment.

IDENTIFYING, ANALYSING AND TREATING BLACKSPOTS AT KARIVELLUR-MELE CHOVVA ROAD

A PROJECT REPORT

Submitted by,

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AMAL JOSE (VML19CE017)
SAIKRISHNA T.O (VML19CE082)
TINA RAVINDRAN V (VML19CE098)

to

the APJ Abdul Kalam Technological University

in the partial fulfilment of the requirements for the award of the degree

of

Bachelor of Technology
In
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Department of Civil Engineering

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JUNE 2023

DEPARTMENT OF CIVIL ENGINEERING

CERTIFICATE

This is to certify that the report entitled 'Identifying, Analysing And Treating Blackspots At Karivellur – Mele Chovva Road' submitted by Amal Jose(VML19CE017), Riya Jose(VML19CE080), Saikrishna T.O(VML19CE082), Tina Ravindran V(VML19CE098) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by her under my guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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_23/06/23_

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_23/6/23_

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ABSTRACT

India is a developing country. In the developing era, accident severity is increasing day by day due to increasing in vehicle population. The national highways network of India is responsible for development of civilizations and economic development of the country by meeting travel requirements of people and goods. Road accidents are one of the major elements which block the development of civilizations and economic growth due to the high economic loss as well as loss of life it causes. Hence it is important to identify such places of high accident chances and rectify them as soon as possible.

Accident analysis is carried out in order to determine the cause or causes of an accident (that can result in single or multiple outcomes) so as to prevent further accidents of a similar kind. Several methods can be adopted to identify such accident-prone zones or accidental black spots. Accidental black spots are the spots where accidents have occurred historically many times. Government of India formulated Accidental Prevention Committee (APC) in year 1997 by identifying accidental prone spots on the rural highways of the state and suggested the suitable remedial measures for reducing the accidents.

The present study aims to identify, analyse and treat accidental black spots on a section (45 km) of National Highway - 66 by studying the accidental data provided by the Ministry of Road Transportation and Highway (MoRTH) during year 2018-2022 on the basis of IRC 131-2022: Identifying and Treating Blackspots. In present study for identification of black spots prioritization method is used. During that study basic causes of accidents were found out and suitable remedial measures were also suggested for a particular spot.

Keywords; *Road accident analysis ,road accident frequency, road accident severity, Accidental black spots, National Highway, Severity Index*

CHAPTER 4

CONCLUSIONS

The study is an attempt to identify the most vulnerable accident black spots along the 45km stretch of NH-66 road from Karivellur to Mele Chovva and provide solutions to rectify the errors in the road sections. Black spots are high-risk locations where a number of accidents repeatedly occur. Black spot management is an effective approach to reducing accident rates in a particular area.

The objective of this project was to identify a blackspot and propose effective countermeasures based on crash data analysis and the guidelines provided by the Indian Road Congress (IRC).

As an initial step of analysis, total crash data collection is carried out from FIRs of respective police stations. Then to identify the accident-prone area(blackspot) based on the collected crash data the Geographic Information System is utilized efficiently for the analysis, prioritization and representation of blackspots. Therefore, we conducted both Cluster Analysis and Heat Map Analysis using QGIS software, where we identified cluster number 17 as a high-density buffer zone. We then performed prioritization analysis, which helped us determine the black spots with the highest density within the buffer zone by prioritizing them based on severity indices. The prioritization analysis helped us demonstrate the most accident-prone areas, making the treatment of black spots more cost-effective.

Site visit helped us to analyze accident-causing factors such as visibility, sight distance, set back distance, weather conditions, traffic volume and other road parameters. Geometric analysis, surveys, and our own observations helped us identify the key causes behind the accidents. With the assistance of experts, relevant IRCs, and by our own ideas, we suggested the best possible countermeasures for the black spots.

In conclusion, based on the comprehensive crash data analysis and the guidelines provided by IRC, it has been determined that Mele Chovva Junction is a blackspot requiring urgent attention. The proposed countermeasures encompass intersection modification, signalization, speed management, improved signage and road markings, enhanced lighting, pedestrian safety measures, and public awareness campaigns. By implementing these measures, it is expected that the frequency and severity of accidents at Mele Chovva Junction will be significantly reduced, leading to improved road safety for all users of the junction and the surrounding area.

ANALYSIS OF PERFORATED STEEL BEAMS

PROJECT REPORT

submitted by

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This is to certify that the report entitled **Analysis of perforated steel beams** submitted by **Adithyakrishna S (VML19CE009), Akshay P (VML19CE015), Laya Narayanan (VML19CE064), Midhuja Jayakumar (VML19CE068), Pavithra T A (VML19CE076)** to the APJ Abdul Kalam Technological University in partial fulfillment of the B.Tech degree in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

A perforation is a small hole or row of holes punched into a material. The purpose of a perforation is to make a material easy to tear or bend. Perforated metal can be used for structural and decorative applications in the architecture and design, including balustrades, facades, stairs and screens. Its characteristics allow for creativity with light, sound and visual depth. Perforated metals can be used to regulate light and ventilation within a space. A perforated metal sheet has a structural strength that is superior to many building materials. Structural Analysis and Design (STAAD) is a software that is used for analyzing and designing structures like buildings, towers, bridges, industrial, transportation and utility structures. STAAD.Pro provides a flexible data collaboration and advanced features. It is used to create a three dimensional picture of a structure. In this project we are going to analyse the beams with perforations of different shapes such as circle and square. The software STAAD.Pro is used here. Here we analyse that which shape have the better characteristic.

Keywords: STAAD.Pro, Perforations, Perforated Beams.

CONCLUSION

As mentioned before, perforated sheet metals are designed so that they have patterned holes on them. Whether you use these metals in a structure's exteriors or interiors, they can easily provide better ventilation and sound acoustics. For example, when used as building cladding, the design of the sheet metals is conducive to allowing enough cool air or ventilation to pass through. This can help your building lower energy costs that may arise from the excessive use of heating and cooling systems. Building occupants will feel more comfortable when spending long hours inside the structure, without feeling any discomfort from the temperature.

The perforated design can also help in better acoustics. The material can provide soundproofing qualities and may muffle the sound of loud noises. In shared locations such as apartments, having perforated metals for the cladding can help in reducing noise disturbances experienced by the residents. So from the above observation, it is seen that the circular perforation in 10 numbers is having lease stress and therefore more strength as compared to that of square openings.

ANALYSIS AND DESIGN OF MULTILEVEL CAR PARKING USING STAAD pro IN CHAKKARAKKAL

A PROJECT REPORT

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ABSTRACT

The population of the world was increased day by day and also the town and cities increase or developed their public transport. Due to an increase in population car ownership also increased. The car owner used to travel by own vehicles especially. So, in a commercial area like the shopping mall, cinema halls, banks, etc, people want to travel by own vehicle each car needs proper parking space so that the parking demand will be increased as per the demand we should improve the parking facility. For that, we should analyze parking patterns. Nowadays in peak time finding a parking space is a big issue. Unavailable parking people use to park a vehicle on the roadside which caused the fatal accident and major traffic jams. Parking space will be less so it will be a challenge to use that space properly and multilevel car parking is a smart way to park more vehicles in a particular area at a particular time. Multi-level car parking comes with several reliefs like optimization of space comfort for drivers to find a space during struggling for parking etc. The research was about present design of a multi-level car park for the alleviation of traffic challenges in public areas. For this type of parking system, the various designer will design all the part of the structure like arrangements of deck and ramp, planning the dimensions, the bay width, aisle width, ramp dimensions, planning grid, alignment paths to exit barriers, travel distances from the car to the destination, security, visibility, camera, space allowances and lift provision

Keywords: Multi level car parking, Tower car parking, Traffic challenges

CHAPTER 6
CONCLUSION

We have done the analysis as well as design of this multilevel tower car parking. Trial and error method was used to determine elements of the structure. We are satisfied with the results as none of the members failed and also the analysis results obtained are under the allowable limits according to Indian Standards. This structure would reduce the traffic congestion which is currently experienced by the people near this area. More vehicles can be safely accommodated without causing any trouble to the normal functioning of that area. This structure can be expanded in future in order to accommodate more vehicles of different types by changing the dimensions of the structure as well as increasing its load bearing capacity.

FLOOD VULNERABILITY ASSESSMENT OF SREEKANDAPURAM MUNICIPALITY AND PAYYAVOOR PANCHAYATH USING GIS

PROJECT REPORT

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This is to certify that the report entitled '**Flood vulnerability assessment of Sreekandapuram municipality and Payyavoor Panchayath using GIS**' submitted by '**Abhijith Jayan (VML19CE003), Aishwarya P K (VML19CE011), Akarsh M (VML19CE013), Anusree Ramachandran (VML19CE031) and Vaishnavi Suresh (VML19CE100)**' to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose.

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ABSTRACT

Flood is an overflow of water on land. Sometimes a river might receive extra water, either from heavy rains or other natural disasters. When this happens, the water overflows from its normal path in the river bed and onto the dry land. It is a danger to human beings and their properties because less consideration is given for risk analysis and assessment of risk areas. The main aim of this study is to assess the flood vulnerability areas of Sreekandapuram Municipality and Payyavoor Panchayath The map helps to produce management and strategic plans aimed at preventing and reducing flood impacts. For analyzing this issue, flood generating factors such as slope, elevation, land use/land cover, drainage density, rainfall, and soil types were rated and collected to mark out flood vulnerability zones using the Geographic Information System (GIS). Maps were constructed using past data on river banks and discharge of earlier floods along with topographic data to illustrate areas susceptible to flood for various discharges. The influences of all overflow distribution factors were calculated using pair-wise evaluation techniques for decisive weighted-overlay investigation of each factor in flood vulnerability assessment. Then the constructed six maps are combined and is weighted to get a single complex flood vulnerable map.

Keywords: GIS, Flood vulnerability map, Weighted overlay, DEM.

CHAPTER 9

CONCLUSIONS

Flood vulnerable areas can be predicted from the flood vulnerability map of Sreekandapuram municipality and Payyavoor panchayath.

The influences to extremely high, high, moderate, low ,and very low vulnerability regions were formulated depending on various probable recognitions .

From the flood vulnerability map it is clear that high flood vulnerable areas are Podikkalam ,Koottumukham, Pazhayangadi .And less vulnerable areas are Kokkadu, Nuchyad ,Mundannur.

- Podikkalam region is extremely vulnerable to flood.
- For eliminating the flood effect raise the roads and switching to more pervious pavement can help to drain water, limit runoff, and reduce flooding.
- Structural forms to prevent floods are by reconstructing landscapes. They include floodwalls ,floodgates, and evacuation routes.
- Construct interior barriers to stop low level floodwater from entering basement is another way to reduce floods.
- Installation of sandbags, rock berms can control the flood .
- Maintaining normal slopes with vegetation and construction or expansion of drainage channels can also control floods.

COMPARISON STUDY ON REMOVAL EFFICIENCY OF CONSTRUCTED WETLAND USING TWO PLANTS

A PROJECT REPORT

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This is to certify that the report entitled 'Comparison Study on Removal Efficiency of Constructed Wetland Using Two Plants' submitted by Aswathi T P (VML19CE037) to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Civil Engineering is a bonafide record of the project work carried out by her under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

This study evaluates the comparison of vertical flow constructed wetlands planted with locally available plants which have to be treated with the wastewater. A constructed wetland is an organic wastewater treatment system that mimics and improves the effectiveness of the processes that help to purify water similar to naturally occurring wetlands. The general concept is that the plants, microorganisms and substrates together act as a filter and purification system. The plants influence the level of oxygen in the wetland bed, enable physical filtration. The plants used in the study are Colocasia Esculanta and Pennisetum Pedicellatum and one of the unplanted bed was used as a control unit. Here the source of water is from the college canteen waste water. The efficiency of plants depends on the type of the media used operating conditions, flow conditions. The project conducts a comparison study about the plants and evaluates the removal efficiency. The wastewater collected from the college canteen is treated and analyzed. The VFCW planted with Colocasia Esculanta obtained average removal efficiency of TDS(96), BOD(86), COD(72), Turbidity(92), Ammonia(79), TN(93), Phosphates(92) and pH of range 7.22 and the VFCW planted with Pennisetum Pedicellatum obtained average removal efficiency of TDS(89), BOD(79), COD(84),Turbidity(95), Ammonia(83), TN(91), Phosphates(96) and pH of range 7.32. The treated effluent concentration from both the treatment unit satisfied with general standards of CPCB.

Keywords: Vertical Flow Constructed Wetlands, Locally Available Plants, Removal Mechanism, Nutrients, Purification System.

CHAPTER 6

CONCLUSIONS

The study indicated the significance of plant presence in removing the pollutants in VFCWs. The removal efficiency of TDS for Pennisetum Pedicellatum is 89% ,Colocasia Esculanta is 96%. Here Colocasia Esculanta has better Tds removal efficiency than Pennisetum Pedicellatum.

The removal efficiency of BOD for Pennisetum Pedicellatum is 79% ,Colocasia Esculanta is 86%. Here Colocasia Esculanta has better BOD removal efficiency than Pennisetum Pedicellatum.

The removal efficiency of COD for Pennisetum Pedicellatum is 84% ,Colocasia Esculanta is 72%. Here Pennisetum Pedicellatum has better COD removal efficiency than Colocasia Esculanta.

The removal efficiency of Turbidity for Pennisetum Pedicellatum is 95% ,Colocasia Esculanta is 92%. Here Pennisetum Pedicellatum has better Turbidity removal efficiency than Colocasia Esculanta.

The removal efficiency of Ammonia for Pennisetum Pedicellatum is 83% ,Colocasia Esculanta is 79%. Here Pennisetum Pedicellatum has better Ammonia removal efficiency than Colocasia Esculanta.

The removal efficiency of Tn for Pennisetum Pedicellatum is 91% ,Colocasia Esculanta is 93%. Here Colocasia Esculanta has better Tn removal efficiency than Pennisetum Pedicellatum.

The removal efficiency of Phosphate for Pennisetum Pedicellatum is 96% ,Colocasia Esculanta is 92%. Here Pennisetum Pedicellatum has better Phosphate removal efficiency than Colocasia Esculanta.

The ranges of pH for Pennisetum Pedicellatum is 7.32 ,Colocasia Esculanta is 7.22. Here Pennisetum Pedicellatum has better pH removal efficiency than Colocasia Esculanta.

Thus, we can conclude Colocasia Esculanta has better TN, BOD, TDS, Phosphate removal efficiency and Pennisetum Pedicellatum has better COD, Turbidity, Ammonia, pH removal efficiency. According to CPCB general standards for discharge of environmental pollutants (see Annexure), all the standards are satisfied thus the waste can be discharged into land of irrigation, land of inland water.

31

POWER GENERATION & HARVESTING ELECTRIC ENERGY USING PIEZOELECTRIC EFFECT

PROJECT PHASE – II REPORT

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A P J ABDUL KALAM TECHNOLOGICAL UNIVERSITY

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ABSTRACT

In the 21 st century, a major concern for everyone is the depletion of the non-renewable resources. Currently a variety of power sources both renewable and non-renewable are available yet the demand for electricity is not met. Thus the search for an inexhaustible & abundant power resource led to the concept of transduction of human footsteps into electricity using piezoelectric effect. In this project, as people walk on the piezoelectric tile, a mechanical stress is developed which is transduced into electric voltage.

Piezoelectricity is a form of electricity where mechanical vibrations are transduced to electrical energy. Based on the studies & researches conducted, the product is designed like on stepping the tile the mechanical energy is converted into electric voltage which is stored in a battery for consumption.

This project is mainly beneficial in densely populated areas like schools, colleges, railway stations, movie theatres and other places where people walk around all day. With this project, electricity can be generated that is both noiseless and pollution free. Thus non-renewable resources can be saved for the future generations as well as a sustained growth is assured. This project would be a pioneer in electrification of industries and a renewable energy transition initiatives.

CHAPTER 5

RESULT & CONCLUSION

5.1. OBSERVATION

FIG [9] TESTING USING HAND

At the initial prototype preparation, the output voltage from 5 piezoelectric discs obtained was 45 volts.

FIG [9] shows the picture of testing with the hand pressures, while the **FIG [10]** shows the picture showing the waveform without the rectifier circuit. **FIG [11]** shows the picture which shows the waveforms with the rectified circuit and the waveform from the capacitor output.
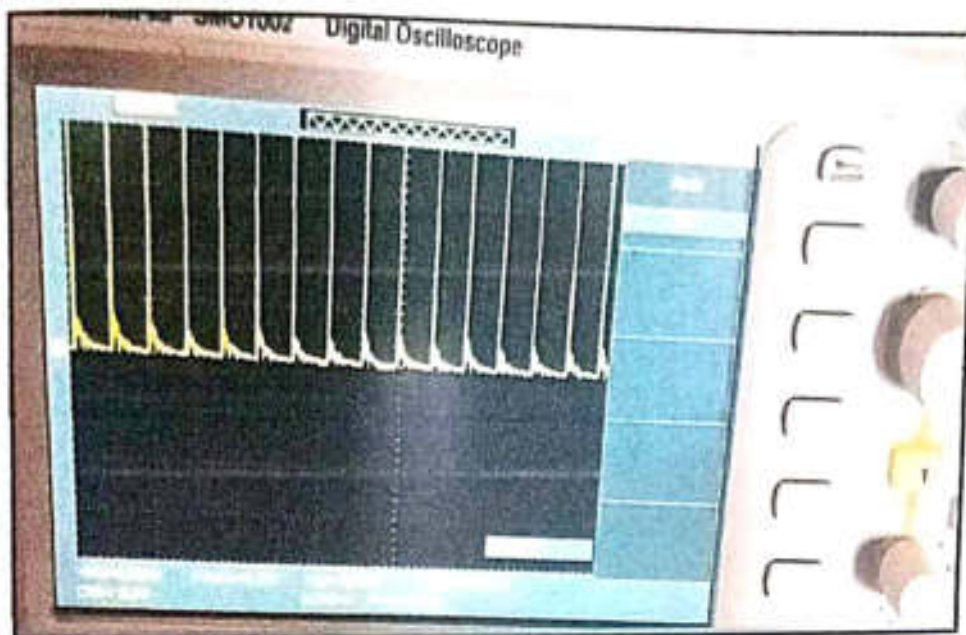
FIG [10] WAVEFORMS FROM TILE WITHOUT RECTIFICATION

FIG [11] RECTIFIED WAVEFORM

FIG [12] TESTING USING HUMAN FOOTSTEPS
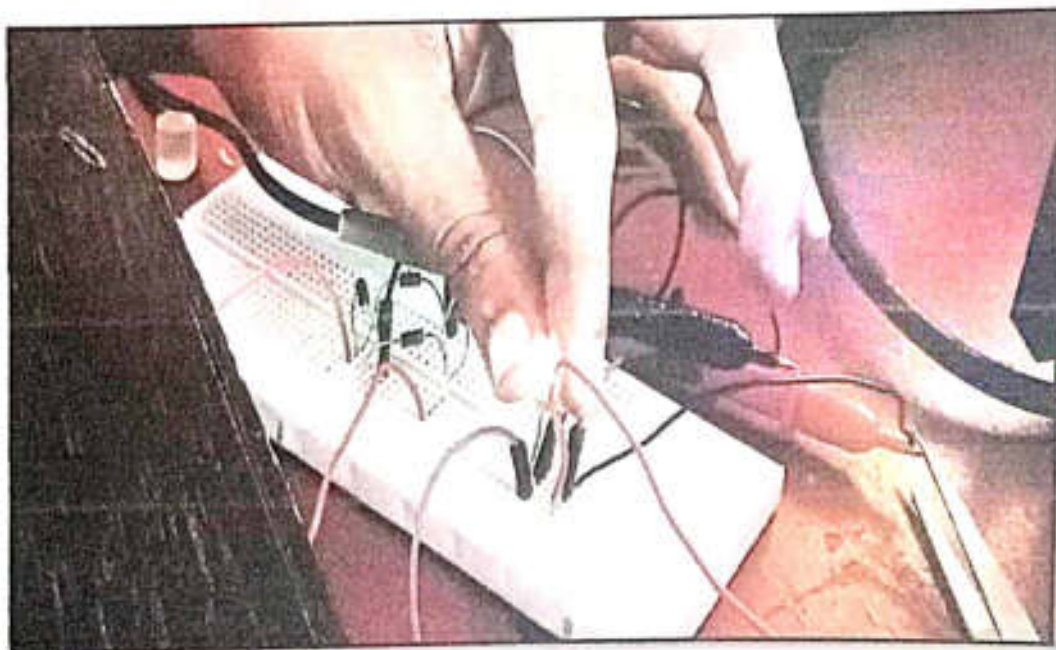
FIG [13] TESTING THE BULB

ENERGY AUDIT OF VIMAL JYOTHI ENGINEERING COLLEGE

PROJECT PHASE-II REPORT

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This is to certify that the Project Phase-II report entitled **"ENERGY AUDIT OF VIMAL JYOTHI ENGINEERING COLLEGE"** is a bona fide record of the EED416 Project Phase-II done by **AJIN MATHEW JOSEPH, AJITH SAJI, AKHIL GEORGE, T K MUHAMMED ZIJAH** under our guidance towards the partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electrical and Electronics Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

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ABSTRACT

Energy is the primordial factor for the survival of life. As the exploitable source of energy in the world is initiated, efficient and effective use of energy is of great importance. To reduce the gap between the demand and supply of energy, efficient utilization of energy has become one of the effective ways in the present energy crisis. Conservation and management of energy have assumed tremendous significance in the last decade, particularly in large institutions. Reducing energy bills in a large institution has become a great challenge. In India power consumption is high compared to generation.

Day by day, energy demand keeps rising so that it is essential to reduce energy consumption for that energy conservation is needed. For Conservation of energy the best option is energy audit. Energy audit is a process to determine when, where, why and how energy is used in a plant or building. Collection of these information helps to identify the situation where there is a need to improve energy efficiency and decrease production cost. By conducting energy audits, energy can be considered as a manageable expense and try to conserve it in day-to-day action. An energy audit is a useful tool for developing and implementing comprehensive energy management plans of an organization. The aim of an energy audit is to identify the energy efficiency, conservation and savings opportunities at the premises of the audit sites in a systematic manner.

CHAPTER 6
CONCLUSION

The energy audit of Vimal Jyothi Engineering College Chemperi has identified significant opportunities for energy savings and efficiency improvements. Implementing the recommendations outlined in this report can result in substantial energy and cost savings. Furthermore, it will contribute to reducing the institution's environmental footprint, enhancing energy security, and promoting a culture of sustainability. Regular monitoring and performance tracking should be implemented to ensure the long-term success of the energy efficiency measures. The college administration and stakeholders are encouraged to prioritize and implement the identified recommendations to achieve sustainable energy practices and create a greener campus environment.

AUTONOMOUS UNDERWATER VEHICLE

PROJECT PHASE-II REPORT

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CERTIFICATE

This is to certify that the Project Phase-II report entitled *"AUTONOMOUS UNDERWATER VEHICLE"* is a bonafide record of the E ED 416 Project Phase-II done by **ALEENA JAISON**, **AMRITHA P, KIRAN JOSEPH, NOYAL JOSE** under our guidance towards the partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Electrical And Electronics Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

Place: Chemperi

Date 02-06-2023

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ABSTRACT

Marine ecosystems contain life, minerals, information, etc, that can help the planet, however, only 5 percentage of them are explored. This is mainly because existing Under-water Remotely Operated Vehicles (ROVs) are expensive and require a lot of work and time to use. We designed a low cost, easy to use, portable, safe, and reliable ROV capable of being used for scientific research, while being operated and maintained by students. In this paper we explain the necessity behind this project, how it compares to similar projects and the design decisions made in developing the ROV, to include the options and trade-offs considered. We also present project budgets, the final design, and results of our field tests. Underwater robotics projects offer an excellent medium for discovery-based engineering and science learning. The challenge of building underwater robotic vehicles and manipulators engages and stimulates students while encompassing a very broad spectrum of engineering disciplines and scientific concepts. This project has also been success-fully piloted in pre-college programs, aimed at generating interest among high school students.

CHAPTER 10

CONCLUSION AND FUTURE SCOPE

Remotely operated vehicle for underwater inspection is presented in this project. catia V5 is used to develop the design .frames for mounting the components manufactured using laser cutting techniques , human to vehicle interface formed using BLUEOS, The compact size of our Underwater vehicle allows them to enter areas where divers cannot access and inspect Our vehicle can dive to depths of 50 meters and relay live video through a cable to the surface, where it's connected to a control station Various chemical parameters and depth can be measured using different sensors and pixhawk

Our ROV still has work to do in the future. First, there are some changes made to the present design. By eliminating unused frame material from the front and back plates of the frame, the main modification would be to increase the water flow through the ROV. This would aid the ROV's driving dynamics by reducing weight and assisting in reducing drag. By stacking the electronics components on each other we can reducethe overall size of the ROV, thus making it more portable and less bulky. To make the stack more accessible, we can use waterproof connectors for all thrusters, so that disconnecting the connectors will enable us to retrieve the stack plate completely. In the current design, the guard plates are to be dismantled to replace a thruster mount. This should be avoided in the next updated design.

Additionally, the ROV may be simply duplicated and utilized to evaluate multi - robot control methods, which are frequently employed in the Robotics. Replacethe sensors or get them calibrated. Right now, a mechanical relay can be used to turn on or off the lights. It would be ideal if the lights could be dimmed. Students can strive to accomplish this capability. Additionally, students have the option of redesigning the frame as necessary. By eliminating unused frame material from the front and backplates of the frame, the main modification would be to increase the water flow throughthe ROV. This would aid the ROV's driving dynamics by reducing weight andassisting in reducing drag. A minimum of one auxiliary port with lines leading directlyto the main electronics bottle was one of our design requirements. The ROV

can also house a laser rangefinder or a camera. There are numerous options for auxiliary equipment. We anticipate that students will eventually research and analyze the dynamics of the system in order to create autonomous ROV controllers. This might take the kind of heading control, which allows the ROV to maintain a specific heading while operating so the scientist can focus more on the science and less on keeping track of their whereabouts. Additionally, the ROV may be simply duplicated and utilized to evaluate multi - robot control methods, which are frequently employed in the Robotics field now days. Another concept we have considered is the potential for the ROV to be turned into a "product" that can be commercialized. This may entail building a small number of them specifically for that purpose and selling them to programs looking to purchase a ROV, or it could entail offering the services. Our ROV can be disassembled, flat packaged, and sent wherever it is needed. Operators can fly out and assist with ROV deployments. We could be using the ROV to assist other colleges or research projects looking for an affordable, effective ROV.

As a culmination of our design and construction efforts, a functional ROV is now available for use in Underwater Research Centre at our academic institution. ROV needs certain changes, however such changes can be made by future students as a method to learn more about ROVs or by the students in an effort to make it better.

SMART ENERGY METER WITH BILL PREDICTION USING AI

PROJECT PHASE-II REPORT

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In the partial fulfilment for the award of the Degree

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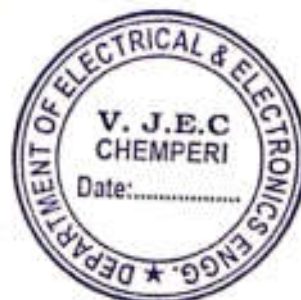
ABSTRACT

This project aims to develop a smart energy meter using Arduino, which can measure the consumption of electricity in real-time and this project focuses on the development of an intelligent energy meter that utilizes artificial intelligence (AI) algorithms to predict electricity bills. The device is built using an Arduino microcontroller board and various sensors that monitor energy consumption in real-time. The collected data is then processed and analysed using machine learning algorithms to forecast future energy usage patterns and generate an estimated bill. This project aims to provide consumers with an effective way to manage their energy consumption by giving them insights into their electricity usage and helping them to make informed decisions about their energy consumption habits. The proposed smart energy meter is designed to be cost-effective, easy to install, and compatible with most existing electrical systems. The potential benefits of this project, such as reducing energy waste, minimizing carbon footprints, and saving money on electricity bills. The development of this smart energy meter with bill prediction using AI can contribute to a more sustainable and efficient energy future

CHAPTER 7

FUTURE SCOPE

The immediate opportunities of smart metering lie in the areas of data access, billing transparency, energy efficiency, performance and compliance. Analytics and technology unfold more exciting possibilities into the future. IoT and big data analytics will pave the way for multiple devices to be connected. For E&U companies, it can improve grid intelligence and provide projection models that will combine historical data and weather forecasts to integrate the supply of renewable resources. Such innovations can take customer experience to new levels

CONCLUSION

This is the combined hardware advantage for both utility and the customer. Arduino, SSR, and GSM stationed Energy Meter for smart metering, power theft detection, and voltage variation is built which is able to read and send data via wireless protocol using GSM technology through GSM modem, capable of managing and controlling the supply to that meter through SSR. In the case of power theft, defaulter meter line cutting/joining labour system is reduced. Power consumption, power quality, and its accuracy can be monitored by the consumers directly in their mobile. This process will reduce the labour work and human error in the distribution system and also protect the consumer equipment

A SMART GLOVE THAT TRANSLATES SIGN LANGUAGE INTO TEXT AND SPEECH

PROJECT PHASE-II REPORT

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This is to certify that the project report entitled **"A SMART GLOVE THAT TRANSLATES SIGN LANGUAGE INTO TEXT AND SPEECH"** *is a bonafide record of the EED 416 Project Phase II Report preliminary done by* **DILNA MARIA SHIBU, DWITHI SHIVAKUMAR** *and* **VAISHALI PRABHAKARAN** *under our guidance towards the partial fulfilment of the requirements for the award of the Degree of Bachelor of technology in Electrical& Electronics Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi, Kannur.*

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ii

ABSTRACT

Speech is the easiest way for communication in the world. It becomes difficult for speech impaired people to communicate with normal people as they use sign language for communication. When a speech-impaired person communicates with normal person, the communication gap between speech impaired and normal masses is too much to fill. The gesture recognition can be done in two ways, Image processing based and sensor-based.

The Objective of the project is to design a smart glove for sign language translation that helps an easy way of communication for speech impaired or hearing-impaired people.

In this project, glove need to be equipped with sensors such as Flex sensor and Accelerometer which sense different sign language gestures. Flex sensors are placed on fingers which measure the bending of fingers according to a gesture made. An accelerometer is placed on the palm which measures the location of the hand in X, Y, Z axes. The sensed data from sensors is sent to Arduino UNO board for further processing and transfer data to an android phone via Bluetooth module. The data we get will be in the form of text. This text data is then converted into speech.

CHAPTER 8

CONCLUSION

In this project, we developed a Smart-Glove for supporting deaf and mute people in communicating with normal people who are not familiar with sign language. The Smart-Glove is able to connect to Android mobile and facilitate exchange of messages. Whereas the android application is able to receive messages from Smart-Glove and the Smart-Glove is able to send corresponding values to the application through the Bluetooth module. The Smart-Glove is light, cheap, easy to use and no risk. We believe that the project is an effective and very useful for deaf and mute people if they know the sign language where they can communicate with their families and people around them.

As future scope of the project, the system may be extended to support other languages, can include home automation and the system can use several ways to communicate. It can use Wi-Fi connection, which enables a faster connection and better range from the base station or GSM module (Global System for Mobile communication). GSM is the most widespread and it's a cellular technology used for transmitting mobile data services, the most obvious advantage of it is widespread use throughout the world. Besides that, by making use of the GPS, it is possible to locate the position of user and it will make easier to locate them in the case of emergency.

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DUAL AXIS SOLAR TRACKING SYSTEM WITH HOME AUTOMATION

PROJECT PHASE-II REPORT

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ABSTRACT

Solar energy is rapidly advancing as an important means of renewable energy resources. It is radiant light and heat from the Sun that is harnessed using a range of ever-evolving technologies such as solar heating, photovoltaic, solar thermal energy, solar architecture, molten salt power plants and artificial photosynthesis. Trackers direct solar panels or modules toward the sun. These devices change their orientation throughout the day to follow the sun's path to maximise energy capture. The use of solar trackers can increase electricity production by around a third, and some claim by as much as 40% in some regions, compared with modules at a fixed angle. In any solar application, the conversion efficiency is improved when the modules are continually adjusted to the optimum angle as the sun traverses the sky. We present the design of a solar tracking system which is based on Arduino UNO and which provides movement of solar panels in the direction of maximum sunlight incident. As a result of which we get a more efficient system which is compact, low cost as well as easy to use. With the help of energy from dual axis, We also design a home automation system with which we can control devices with the help of a mobile app.

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CHAPTER 7

CONCLUSION

In this work we presented a model of Dual axis solar tracker with home automation. As we saw the device got connected with the cloud and was operated remotely through a mobile application. This proposed model has a wide variety of applications such as in home automation System, Hospital Automated System and so on. It also has a number of advantages like faster and efficient systems, reduces human effort, reduces delays and increases efficiency.

There are a lot of features that can be added to the presently designed system. As IOT is growing day by day we can see that such smart devices will also grow.

FUTURE TRENDS

Fabrication of Microcontroller using BASIC concepts: The number of wires can be greatly reduced by directly if a customised PCB is made upon which all the resistors can be directly soldered. This also eliminates the use of a Breadboard which was used to make all the external connections.

Design Improvements: With the current design, it can be seen that the controller circuit rotates along with the panel. This was done to avoid tangling of wires. A better design may be realised in which only the panel rotates and all other parts are stationery.

Mounting of the Panels: In our design, the panels are mounted on a horizontal shaft supported strongly at both ends. We can mount the panels directly onto a motor placed at the centre of the Panel-Base in order to provide East-West movement. This reduces the weight and effective cost of the project.

AUTOMATIC WASTE GATHERING AND DISPOSAL SYSTEM

PROJECT PHASE-II REPORT

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of

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IN

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ABSTRACT

Traditional waste management systems often involve manual collection methods, which can be time-consuming, inefficient, and prone to human error. Automatic waste gathering and disposal systems aim to address these issues by leveraging advanced technologies such as robotics, artificial intelligence, and sensor networks These systems typically consist of intelligent waste bins or containers equipped with sensors that can detect the level of waste inside. When the bins reach a certain capacity, they trigger a notification to a central control system, which initiates the waste collection process. Automatic waste gathering and disposal systems offer numerous benefits. They increase operational efficiency by reducing the time and effort required for waste collection, leading to cost savings for municipalities and waste management companies. These systems also promote environmental sustainability by enhancing recycling rates and minimizing the impact of waste on ecosystems.

Furthermore, such systems improve hygiene and cleanliness in urban areas by reducing the chances of overflowing bins and littering. They also enhance public health by minimizing the exposure of workers to potentially hazardous waste materials.

CHAPTER 8
CONCLUSION

By using this method, the collection of waste in the city becomes easier. It helps in reducing air pollution, traffic flow, manpower, time and money. With the help of proper technology (GPS & SOFTWARE APPLICATIONS). This project can add an edge to the cities aiming to get smart and people friendly. Waste management is all the activities and actions required to manage waste from its inception to its final disposal. This includes collection, transportation, treatment and disposal of waste together with monitoring and regulation. Despite the various new technologies thatare emerging for solid waste disposal, landfilling still remains the most common solution in the northeastern Illinois region. The establishment and closure of landfills could pose a potential hazard to ground water, due to leachate seepage, and air quality due to for a long time (30 years), public health may be compromised asa result. Such management is costly and potentially dangerous if faulty. Thus, a safer and may be minimizing the number of landfills constructed and ensuring their longevity so as not to continue taking viable land for waste disposal. It is therefore critical to divert waste from landfills through reduction and recycling. There are a lot of features that can be added to the presently designed system. As IOT is growingday by day we can see that such smart devices will also grow.

IOT BASED SMART STREETLIGHT INTENSITY CONTROLLER SYSTEM

PROJECT REPORT

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to

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in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

in

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JUNE 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
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CERTIFICATE

This is to certify that the project report entitled "**IOT BASED SMART STREETLIGHT INTENSITY CONTROLLER SYSTEM**" submitted by **BRAJESH PV, DHANUSH CH, JOBIN JOSEPH** and **NISWARTH AV** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a Bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The aim of IoT Based Smart Street Light Intensity Controller System is the conservation of energy by reducing electricitywastage as well as to reduce the manpower. The Saved energy can be utilized in various purposes like residential, commercial etc. This is done by using the LDR sensor. Here the LDR sensor is used ON-OFF the street light based on the ambient intensity level. It is an uncomplicated light/dark activated switch and contains a relay at its output. This switching can be done by a low-cost Wi-Fi module ESP8266 after reading the LDR value. The real time information of the street light (ON/OFFStatus) can be accessed from anytime, anywhere through internet. It ensures high reliability and excellent long-term stability. This work is implemented using a programmed NodeMcu Board for providing the required intensity of light at various times. The proposed work has achieved a better performance compared to the existing system.

CHAPTER 6

6.1 CONCLUSION

"IoT Based Smart Streetlight Intensity Controller System" is a cost effective, practical, eco- friendly and the safest way to save energy and this system the light status information can be accessed from anytime and anywhere. It clearly tackles the two problems that world is facing today, saving of energy and also disposal of incandescent lamps, very efficiently. Initial cost and maintenance can be the draw backs of this project. With the advances in technology and good resource planning the cost of the project can be cut down and also with the use of good equipment the maintenance can also be reduced in terms of periodic checks. The project has scope in various other applications like for providing lighting in industries, campuses and parking lots of huge shopping malls. This can also be used for surveillance in corporate campuses and industries.

6.2 FUTURE DIRECTION

1. Energy Efficiency: One direction could be to focus on increasing the energy efficiency of the smart streetlight system by utilizing renewable energy sources and optimizing the use of energy. This could involve implementing solar-powered streetlights or using battery storage to store excess energy during off-peak periods.

2. Data Analytics: Another direction could be to leverage the data collected from the IoT sensors to optimize the performance of the smart streetlight system. This could involve using machine learning algorithms to predict the lighting needs of different areas, adjust the intensity and duration of lighting based on the weather conditions, and adjust the lighting levels based on the pedestrian and vehicular traffic in the area.

3. Autonomous Navigation: A future direction could be to integrate the smart streetlight system with autonomous vehicles. The system could use real-time data to adjust the intensity and direction of the streetlights to optimize visibility for the vehicles.

4. Security: Another potential direction could be to enhance the security of the smart streetlight system. This could involve using biometric authentication to control access to the system and integrating the system with other security features such as cameras and alarms.

AUTOMATIC SPICE DRYING MACHINE USING MICROCONTROLLER FOR DOMESTIC PURPOSE

PROJECT REPORT

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This is to certify that the project report entitled **"AUTOMATIC SPICE DRYING MACHINE USING MICROCONTROLLER FOR DOMESTIC PURPOSE"** submitted by **FLEMY JOSE, GOPIKA GOPALAKRISHNAN, SHRUTI BALACHANDRAN, CHITHRA S** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a bona fide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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Chemperi, Kannur	Chemperi, Kannur	Chemperi, Kannur

ABSTRACT

Drying has been used centuries as a method for food preservation. Fluid extraction in material is known as drying whereby water is removed from solids to a certain level with different techniques. During drying process, high energy levels are consumed due to moisture removal from the body. Drying characteristics of fruits depends on various factors such as sorption equilibrium, density, and thermal properties. Design of any kind of heating process required knowledge about the materials density and thermal attributes. To obtain higher quality products, reliable controller is one of the significant requirements. The common controllers are Programmable Logic Controller (PLC). The total cost of PLC-based automation is very expensive and does not allow using in small systems. However, Microcontroller is the other processor component which is very low-cost processor. It is being employed in many semi-industrial projects and small factories. Meanwhile in this research, ATMEGA328 microcontroller that is high performance and low-cost component are being used. A spice drying machine is an essential piece of equipment that dries spices quickly and efficiently, while preserving their flavor and aroma. In short, a spice drying machine is an essential piece of equipment for any spice processing facility. It offers numerous advantages over traditional drying methods, including efficiency, consistency, and speed, while also preserving the flavor and aroma of the spices. As the demand for high-quality spices continue to grow, the use of spice drying machines will undoubtedly become more widespread. This project will ensure higher efficiency at lower cost and lesser power consumption for the spice drying machine.

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CHAPTER 6

CONCLUSION

The dryer in the present is easy to build and required only semi-skilled labor and limited manufacturing facilities to fabricate. Thus, the dryer is most suitable for use in urban as well as rural areas of the country. It is found significant reduction in drying. The farmers can dry spices when these are available in plenty and at low cost. The use of the proposed spice dryer will be a great boon for farmers in the developing countries.

This research has reviewed and explored the fundamentals and applications of various electronic components. It has demonstrated that home appliances and industrial systems can be fully automated without human intervention as automated system are accurate and require no human intervention to work. This will not only eliminate cost but also leads to efficiency. Here the drying technology helps in drying up spices with less amount of time and power consumption This project provides a basic solution to decrease problems using traditional methods of spice drying. Its cost effective, less manpower required, good quality in production, is time saving, consumes less energy and is highly efficient.

6.1 FUTURE DIRECTIONS

In future our project can be modified as:

- Fully automated
- Integrate improved sensors
- Solar panels or solar batteries can be used instead of normal batteries.
- Integration of other systems like sorting system.

AUTOMATED POWER SUPPLY CHANGEOVER SWITCH FOR ON GRID DOMESTIC SOLAR PLANTS

PROJECT REPORT

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CERTIFICATE

This is to certify that the project report entitled "**AUTOMATED POWER SUPPLY CHANGEOVER SWITCH FOR ON GRID DOMESTIC SOLAR PLANTS**" submitted by **ASHIK BENNY, MANAS TOM, SIDHARTH K, KRIS P THANKACHAN** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

The 'AUTOMATED POWER SUPPLY CHANGEOVER SWITCH FOR ON GRID DOMESTIC SOLAR PLANTS' project is a solution for power cut off problem in situation where a power storage system is not employed. This project aims to design and implement an Automated Power Supply Changeover Switch for On-Grid Domestic Solar Plants. This is a device that safely bypass electric current to the usage area without making the risk of return current through the transmission line. The system consists of a IC-based circuitry relay switching system that continuously monitors the availability of grid power and solar power. Whenever the grid power fails, the system automatically switches over to solar power. The switch-over process is quick and seamless, ensuring that there is no interruption in the power supply to the household appliances. This device is aimed at middle class people who plans to install solar panels in their houses, as this is device is actually affordable and beneficial for them. The proposed system is expected to enhance the reliability and efficiency of on-grid domestic solar plants, thereby promoting the use of renewable energy sources.

CHAPTER 6

CONCLUSION

This project is a solution for power cut off problem in situation where a power storage system is not employed. This is a device that safely bypass electric current to the usage area without making the risk of return current through the transmission line. This device is aimed at middle class people who plans to install solar panels in their houses, as this is device is actually affordable and beneficial for them.

In conclusion, the automated power supply changeover switch for on-grid domestic solar plants offers a reliable and efficient solution for seamlessly switching between the solar power supply and the grid power supply. This technology enables homeowners with solar power systems to optimize their energy usage and reduce dependence on the grid. By automatically detecting the availability and quality of solar power, the changeover switch ensures a smooth transition between the two power sources, allowing for uninterrupted electricity supply. This automation eliminates the need for manual intervention and increases convenience for homeowners. Furthermore, the changeover switch enhances the overall efficiency of on-grid domestic solar plants by prioritizing solar power usage whenever it is available. This maximizes the utilization of clean and renewable energy, reducing reliance on fossil fuel-based grid electricity and contributing to a greener environment. Additionally, the automated power supply changeover switch provides protection against power fluctuations and outages. It serves as a reliable backup system, instantly switching to the grid power supply during periods of insufficient solar power generation or system maintenance. Moreover, the user-friendly interface and monitoring capabilities of the changeover switch enable homeowners to track their energy consumption, solar power generation, and grid electricity usage. This empowers them to make informed decisions about energy consumption and optimize their energy management practices. Overall, the automated power supply changeover switch for on-grid domestic solar plants offers an efficient, convenient, and sustainable solution for homeowners to harness the benefits of solar energy while maintaining a reliable and uninterrupted power supply. With the integration of this technology, on-grid domestic solar plants can contribute significantly to a cleaner, more sustainable energy future.

AUTONOMOUS DRONE FOR THE DELIVERY OF PHARMACEUTICALS

PROJECT REPORT

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ABDUL BASITH C C (VML19CE002)

to

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In partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

in

ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT OF ELECTRONICS AND

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ABSTRACT

Autonomous drones are unmanned aerial vehicles (UAVs) that operate using Artificial Intelligence (AI)-powered navigation and operational software, and do not require a human pilot. From taking off and landing to carrying out aerial site inspections and surveying, these aircrafts complete tasks and make decisions on their own. Investigating human drone interaction could potentially increase usefulness and usability. Performs a systematic scoping review on experimental studies examining the human drone interaction in deliveries of drugs and defibrillators.

Implementation of a platform for the delivery of medicine using an autonomous drone. The platform consists of a Healthcare platform that connects doctors and patients and an autonomous drone that handles the delivery of medicine to the patients. The delivery drone can discover the shortest path to the destination and fly to that destination autonomously with the help of the computer vision-based obstacle avoidance system.

A multi-purpose drone with ability of sanitizing indoor; and delivery of medicine in outdoor during pandemic, is designed and fabricated. This is a cost-effective system that can be used in healthcare sections to reduce the risk of infection of front liners by sanitizing a patient's room and fastens the delivery of medicines such as vaccine to the locations which are difficult to access. This method saves the time patients spend in the queues it takes much time to deliver the order due to long order management procedures and road conditions such as traffics and other difficulties. also, in that method patients have to share their prescriptions unsafely. Another objective of this project is to minimize the waiting time of the pharmaceutical drug purchasing process.

CHAPTER 8

CONCLUSION

Drone engineering continues to be a fast developing field with a wide array of applications. The intelligent and autonomous drone systems are a constant field of research with immense possibilities. This drone will be highly useful in many applications and the work to control the drone will be very less. This quadcopter can be modified by adding more features. This drone can be used to deliver the cargo to a specific location. Delivery Drones are used all over the world by leading Logistics Companies and retail outlets due to these facilities and easiness. Human can cheat with the work however machine could never do that because they have no emotions as well as laziness. The quadcopters having four propellers is suitable for package delivery, this makes the delivery system Cost efficient. It is expected that, this capability of drone will be are volutionary step in the medical field. In conclusion, drone delivery has numerous benefits that make its a promising technology for the future of logistics and transportation. From reducing delivery times and costs to increasing accessibility to remote areas and improving the efficiency of supply chains, drones have the potential to revolutionize the way we receive goods and services. Drone delivery can contribute to reducing carbon emissions, mitigating traffic congestion, and minimizing the risk of accidents associated with traditional delivery methods. As technology continues to advance, we can expect to see even more innovative applications of drones in various industries. While there may be some challenges and regulatory hurdles to overcome, the benefits of drone delivery make it a technology worth pursuing for a more efficient, sustainable, and convenient future.

HAND GESTURE BASED SECURE MILITARY MISSION

PROJECT REPORT

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ABSTRACT

Gesture recognizer is a system which identifies the gestures with help of microcontrollers and outputs it as a voice message. This system is having a wide range of applicability in the current world. It can be used in the military field for the communication purpose, since their data is highly confidential at the time of operation. A soldier has a glove attached with few flex sensors. These all connected to the control system (micro controller). Controller will translate the physical signal to electric pulses and send this to near destination by using ZigBee module. The receiver board will decode the electrical signal to its original data form and send to android device by using Bluetooth module. Android device will out the corresponding speech of what they receive through Bluetooth. Also the system can be implemented in hospitals for paralyzed people. This can also be used in space application. As the audio signals cannot pass through vacuum the radio frequency signal helps the communication between astronauts.

CHAPTER 6

CONCLUSION

Through our Project framework, a preliminary idea for result-oriented work is to obtain a hand Gesture based Secure Military mission using a zigbee module. Sign language is a useful sign to facilitate communication between the soldiers on military operations. The goal of this project is to reduce the loss of important information to enemy country. As there are some disadvantages for the current system used for communication by the soldiers, this technology would be of great usage. The information can be passed in a secured manner without the problems of divulging the information. Hand Gesture Based Secure Military Mission can help soldiers to effectively communicate with each other. It ensure the security of data communication at the military mission, since the data is highly confidential at the time of operation. The soldiers who have a glove attached with flex sensors and accelerometer will transmit the data through the hand gestures. So the controller will can translate this physical signal to electrical signal and send to the destination using the Zigbee module. In global applications, this system helps the deaf and dumb who cannot communicate with the other person. The best part of this project is assigning a complete sentence rather than words or characters with respect to each particular gesture made by the person wearing that glove. The biggest feature of this project is that the Gesture symbol may be an associate autonomous system that applies to common living spaces. This can also be used in space application. As the audio signals cannot pass through vacuum the radio frequency signal helps the communication between astronauts.

6.1 FUTURE DIRECTIONS

In future our project can be modified as :

- Health monitoring options for the soldiers can be included with the system
- Other modules can be used to provide more network coverage
- Integrate improved sensors

IMPLEMENTATION OF MARINE COMMUNICATION SYSTEM

PROJECT REPORT

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ABSTRACT

Laser communications systems are wireless connections through the atmosphere. They work similarly to fiber optic links, except the beam is transmitted through free space. While the transmitter and receiver must require line-of-sight conditions, they have the benefit of eliminating the need for broadcast rights and buried cables. Laser communications systems can be easily deployed since they are inexpensive, small, low power and do not require any radio interference studies. The carrier used for the transmission signal is typically generated by a laser diode. This paper tells about the microcontroller based communication system using laser light as a device to transmit data. Here the microcontroller is connected with a PC where the PC act as an input to the laser which gives input text to transmit with the help of laser medium. After successfully implementing this project, we found that the data transmission through laser light has achieved great success while comparing with the conventional communication system . Due to its low noise ratio, it is one of the most well suited communication medium. We have used Arduino to program laser to send binary bits to solar panel which then gives a character based on what binary numbers has been sent.

CHAPTER 6
CONCLUSION & FUTURE DIRECTIONS

In conclusion, underwater optical communications using lasers can offer several advantages over traditional underwater communication technologies such as acoustic communication. Laser-based communications can provide higher data rates, longer range, better immunity to interference, and improved security. These advantages make them an attractive option for a variety of underwater applications, including subsea oil and gas monitoring, oceanographic research, and underwater data centers. As technology continues to advance, it is likely that we will see increased use of underwater optical communications using lasers in the future.

1.Underwater Sensor Networks: Underwater sensor networks can be used for various applications such as oceanographic data collection, environmental monitoring, oil and gas exploration, and underwater surveillance. The use of laser-based communication can provide high-speed data transfer and long-range communication, making it a suitable solution for underwater sensor networks.

2. High-Speed Internet: With the increasing demand for high-speed internet, underwater optical communication using lasers can provide a potential solution for high-speed internet connectivity between continents. This technology can provide faster data transfer rates and lower latency as compared to traditional satellite communication.

3. Submarine Communication: Laser-based communication can also be used for communication between submarines and surface ships. This technology can provide a secure and high-speed communication link between the two without the need for traditional radio communication.

4. Underwater Mining: Underwater mining for minerals and resources is becoming increasingly important. Laser-based communication can be used to provide real-time monitoring and control of underwater mining equipment, providing greater efficiency and safety.

5. Underwater Robotics: Underwater robotics is a rapidly growing field with applications in underwater exploration, environmental monitoring, and oil and gas exploration. Laser-based communication can provide a high-speed and reliable communication link between underwater robots and their control systems, enabling remote control and operation.

ARDUINO BASED SMART MEDICAL PILL BOX WITH VOICE AND DISPLAY REMINDER FOR PATIENTS

PROJECT REPORT

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ABSTRACT

Nowadays, the use of medicine is rapidly increasing. More than 65% of people forget to take medication, also untimed medicine administration can always show adverse effects on the health of the patients, which creates healthcare issues in our world. Pill reminder and medication adherence is the aim of our project. Several commercial products for automatic pill dispensing or medication reminders are on the market: MedMinder, MedaCube, and Hero. etc. The proposed system is designed to help these patients to take the required medicine in the right proportion at the right time. The basic ideology is integrating the principle of an Alarm clock with Light based slot sensing on a normal pill box. An alternate to the light-based sensing method using capacitive fields is also employed. This medication pill box is focused on patients who frequently take medications or vitamin supplements, or attendants who deal with the more seasoned or patients. Our smart pill box is programmable that enables medical caretakers or clients to determine the pill amount and timing to take pills, and the service times for every day. Our smart pill box contains three separate sub boxes. In this manner, medical caretakers or clients can set data for three distinct pills. At the point when the pill time has been set, the pill box will remind clients or patients to take pills utilizing sound and light. The alert message of pills should be taken will be shown by an android application which is held by the patient. Our smart pill box would essentially discharge medical attendants or clients' weight on much of the time preloading pills for patients or clients and overlook the measurements which must be taken.

CHAPTER 6

CONCLUSION

The proposed system consists of a safety-related medical box that can alert the patient, via a phone application, about the time to take his medication and if the correct medicine dose was taken, the number of remaining pills in the box and auto-locks the box to keep the medicine out of reach of children. This system is, for sure, not the first one that helps monitoring and assisting patients. Several previous published works have proposed such systems as the design of smart homes fully equipped by sensors, the monitoring of patients' walk and fall, the telemedicine systems that monitors patients from home, added to that, as mobile phones are playing an important role in today's life, the connection of such medical systems to mobile devices is increasing dramatically due to the ease monitoring and alarm generation. As a human-related system is proposed, the safety and reliability issues are to be considered. These features must be provided mainly when transmitting data whether by making sure of the correct data delivery or the exact receiving part.

IOT BASED WATER POLLUTION MONITORING RC BOAT

PROJECT REPORT

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ABSTRACT

This particular project aims to detect and display real-time physicochemical quality of the water in a much more cost effective manner, as opposed to the current methods which involve sampling and laboratory methods, through its wireless, multi-sensor network. We manufactured a boat which can float and move on the water simply by user controller. This structure is designed as a hull shape which minimizes the resistivity of water flow and this shape also maintains the stability of water. This water quality monitoring boat gives the temperature, pH and turbidity values of the water and sends it to the server through the internet interface module. All the results are generated and displayed with their readings through the graphical user interface in the android application.

CHAPTER 7

CONCLUSION AND FUTURE DIRECTIONS

To check the quality of water, the current method is to sample the water manually. These samples were sent to the laboratories to test the quality which takes extra human effort, cost and time. In our proposed system it will give the properties of the water automatically on the screen without any extra effort. With the help of these properties monitoring of Turbidity, PH & Temperature of Water makes use of a water detection sensor with unique advantage and existing GSM network.

The system can monitor water quality automatically, and it is low in cost and does not require people on duty. So the water quality testing is likely to be more economical, convenient and fast. The system has good flexibility.

Only by replacing the corresponding sensors and changing the relevant software programs, this system can be used to monitor other water quality parameters. The operation is simple. The system can be expanded to monitor hydrologic, air pollution, industrial and agricultural production and so on. It has widespread application and extension value.

By keeping the embedded devices in the environment for monitoring enables self protection (i.e., smart environment) to the environment. To implement this, we need to deploy the sensor devices in the environment for collecting the data and analysis.

By deploying sensor devices in the environment, we can bring the environment into real life i.e. it can interact with other objects through the network. Then the collected data and analysis results will be available to the end user through the WiFi.

In the future we will be using modern technologies.

- Detecting the more parameters for the most secure purpose.

- Increase the parameters by addition of multiple sensors.

- Enhanced sensor technology

- Real-time data analysis

- Autonomous operations

- Integration with smart water management systems

- Collaboration with environmental agencies

- Environmental impact assessment

- Public awareness and education

- Environmental restoration and conservation

These scopes highlight the potential areas for development, collaboration, and utilization of IoT water pollution monitoring boats in the future.

SOLAR POWERED WATER TRASH COLLECTOR

PROJECT REPORT

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ABSTRACT

The world today faces major garbage crisis the product from rapid economic growth, overcrowding, poor urbanplanning, and corrosive corruption. This presents arduino based totally River Cleaning System. It is the system which floats on the water and the energy is supplied from battery. The important purpose of the projectis to reduce the manpower, time intake for cleaning the river.Thus designed the automated system for river cleaning. The outcomes of system performance were found that the conveyor belt can collect the garbage from the river for example,Glass bottles, plastic waste, etc. at the surface of the river. This work emphasis on design and analysis of the floating waste collector. The system is basically a boat kind of thing which will float to various corners of the water body, cleaning the light and floating wastes present in the water. The proposed system uses solar power as a main power source, thus by using alternate source of energy and recycling of water, this machine helps in eliminating the floating wastes present in the water.

CHAPTER 5

RESULT AND DISCUSSION

The work states about the designing and fabrication of a floating waste collector. The various problems like degradation of the marine ecosystem, breeding of disease-causing germs, fall in the farm production rate, business and transport using waterways etc. that the humans and animals are facing due to the pollution of water are the main reasons behind the development of this machine. This machine is designed and fabricated with the aim to provide a lightweight, portable, automated machine with smart controlling which will collect all the floating wastes by recycling of water and without any human physical intervention with low energy consumption and totally power by solar energy. This work has an impact on the reduction of wastes in water and in the life of the workers cleaning the wastes manually by providing them comfort and ease of working using a smart monitoring system that saves time and energy along with maintaining good health and hygiene. The system has lots of advantages along with modernization and many of plans for future which can be developed and implemented later on. Thus, it provides a healthy and disease-free environment for the humans and animals to live in.

EMOTION AND SPEAKER RECOGNITION FROM SPEECH SIGNAL

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ABSTRACT

Emotion and speaker recognition from speech signal is an important area of research in the field of signal processing and machine learning. This technology has numerous practical applications such as automatic speech recognition, call center analysis, and human-robot interaction. This paper presents a block diagram explanation for emotion and speaker recognition from speech signal. The process begins with capturing the voice signal using a microphone or any other audio recording device. The voice signal is then subjected to pre-processing to remove noise and unwanted components. The pre-processed signal is further processed to extract relevant features, such as pitch, intensity, and spectral features, for emotion recognition, and features such as pitch, MFCC, and spectral analysis for speaker recognition. The extracted features are combined to form a feature vector, which is then fed into a machine learning algorithm or classifier. The classifier is trained using multiple audio samples, and its parameters are adjusted to optimize its accuracy. Once the classifier is trained, it is tested on a new audio sample. The test audio signal is pre-processed and its features are extracted in the same way as in the training phase. The feature vector extracted from the test sample is fed into the classifier, which produces an output label or class. In emotion recognition, the output may be one of several emotions such as happy, sad, angry, or neutral, while in speaker recognition, the output may be the name of the speaker or a unique identifier. In conclusion, emotion and speaker recognition from speech signal is an active area of research, and this paper provides an overview of the block diagram explanation for this technology. The proposed method can be used to recognize emotions and speakers accurately and efficiently, with potential applications in many fields.

CHAPTER 6
CONCLUSION

Emotion and speaker recognition from speech signal is a complex process that involves multiple stages, ranging from signal acquisition to performance evaluation. The ability to accurately recognize emotions and speakers from speech signal has important applications in many fields, including healthcare, education, and human-computer interaction. emotion and speaker recognition from speech signal is an active research area that has gained significant attention in recent years. The process of emotion and speaker recognition from speech signal involves several stages, including signal acquisition, pre-processing, feature extraction, classification, and performance evaluation. Recent advances in machine learning and deep learning have shown promising results in improving the accuracy and reliability of emotion and speaker recognition systems. State-of-the-art algorithms can achieve high levels of accuracy on benchmark datasets, although further improvement is needed for challenging real-world scenarios.

In addition, various tools and software, such as speech processing toolboxes, audio recording and editing software, machine learning libraries, and development environments, are available to support the development of emotion and speaker recognition systems. However, careful consideration is needed when selecting these tools to ensure that they are appropriate for the specific use case and application. emotion and speaker recognition from speech signal is a complex process that requires expertise in areas such as signal processing, machine learning, and psychology. The development of accurate and reliable emotion and speaker recognition systems has important applications in many fields and can enable the creation of more natural and intuitive human-machine interfaces. Continued research and development in this area can lead to further improvements in emotion and speaker recognition, ultimately enhancing our ability to understand and interact with the world around us.

6.1 FUTURE DIRECTIONS

Emotion and speaker recognition from speech signal is a rapidly growing field of research and development. As technology advances and new techniques emerge, there are several potential future directions for our project , which can be modified as following:

* Deep learning techniques

* Real-time recognition

* Unsupervised learning

GESTURE CONTROLLED PICK AND PLACE ROBOT

PROJECT REPORT

Submitted by

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to

The APJ Abdul Kalam Technological University

in partial fulfilment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Electronics And Communication Engineering

Department of Electronics and Communication Engineering

Vimal Jyothi Engineering College

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JUNE 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

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This is to certify that the project report entitled **'Gesture Controlled Pick and Place Robot'** submitted by **ANGITHA N, ANJALI KP, HEERA PRADEEP, JEENA GEORGE** to the APJ Abdul Kalam Technological University in partial fulfilment of the requirements for the award of the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a bonafide record of the project carried out by them under our guidance and supervision. This report in any form has not been submitted to any other University or Institute for any purpose.

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ABSTRACT

Nowadays robotic arm is used in various areas such as military, defence, medical surgeries, pick and place function in industrial automation applications. Based on the gesture of human hands the robotic arm moves and performs the task and this system replicates the actions of human hands. The arm is very flexible and can be made suitable in places where the environment is not safe for humans like firework manufacturing industry, bomb diffusing etc. There are various techniques for controlling the robotic arm. Here we deal with the accelerometer-based gesture recognition for controlling the movements of the robotic arm.

ROBOT FOR RESCUE OPERATION FOR BOREWELL VICTIMS

PROJECT REPORT

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ABSTRACT

Borewells are a common source of water in many areas of the world, particularly in rural and semi-urban areas. However, they can pose a danger, particularly to children and animals who may accidentally fall in. Retrieving objects or people from borewells can be a challenging and risky task, often requiring human rescuers to enter the narrow borewells. To address this issue, we have developed a specialized borewell rescue robot. This robot is designed to navigate through narrow borewells and retrieve objects or people that have fallen in. It is equipped with various sensors, motors, and a microcontroller that work together to perform the rescue operation. The robot is typically controlled remotely by a human operator who communicates with it via a wireless communication system. The design of the robot includes a power supply, microcontroller, sensors, motors, and communication system. The power supply provides energy to the robot to operate, while the microcontroller serves as the robot's brain, receiving input from the sensors and sending output signals to the motors and other components. The sensors on the robot include ultrasonic sensors, temperature and humidity sensors, and pressure sensors. The robot uses grip motors to hold onto and lift objects out of the borewell, as well as propulsion motors to move the robot through the borewell. This paper describes the development and design of a borewell rescue robot and discusses its capabilities, features, and potential benefits. The robot's sensors and motors enable it to navigate through the narrow borewell and retrieve objects or people safely and efficiently. The wireless communication system allows the robot to be controlled remotely, eliminating the need for human rescuers to enter the borewell. The borewell rescue robot represents a significant technological advancement in the field of rescue robotics. Its development and implementation have the potential to save lives and prevent injuries. This paper presents a detailed overview of the design and capabilities of the robot and provides insights into its potential applications.

CHAPTER 7
CONCLUSION

The Borewell Rescue Robot project has been successful in developing a functional and efficient robot that can rescue people and animals from borewells. The project's success can be attributed to proper planning, design, and implementation of the various components, including the microcontroller, sensors, motors, and communication systems. The robot's ability to navigate through narrow and challenging borewell environments and collect critical data on the condition of the well and the trapped individuals can be instrumental in making informed decisions and taking appropriate actions. The project's primary objective was to develop a rescue robot that could assist in saving lives and provide relief to the victims trapped in borewells, and the robot has successfully achieved this objective.

However, there is still scope for further improvements in the project. Future development could involve the integration of advanced technologies such as AI and autonomous navigation, enhancing the sensor technology, and improving the robot's communication system. These enhancements can potentially make the robot even more effective in its rescue operations. The Borewell Rescue Robot project has shown that the integration of modern technologies such as microcontrollers, sensors, and communication systems can lead to the development of highly effective and reliable robots. The project has the potential to inspire further research in the field of rescue robotics and contribute to the development of more advanced and efficient robots. Overall, the Borewell Rescue Robot project has been a valuable initiative that has demonstrated the potential of robotics technology in emergency rescue operations. As technology advances, it can be equipped with more advanced sensors and algorithms that allow it to navigate autonomously through the borewell. The robot's wireless communication system can be further improved to enable more efficient data transmission between the robot and the operator, and the size and weight of the robot can be reduced without compromising its performance. Additionally, by integrating Artificial Intelligence (AI) algorithms into the robot's control system, it could learn from past rescue operations and make more informed decisions in future rescues. With these enhancements, the Borewell Rescue Robot can become an even more effective solution for rescuing people and animals from borewells.

AQUATIC MICRO PLASTIC PARTICLE COLLECTION AND WATER PURITY CHECKING ROBOT

PROJECT REPORT

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ABSTRACT

The oceans are an essential global resource for all living organisms but especially for us humans. However, year after year we continue to neglect proper recycling of our waste, resulting in litter ending up in our oceans. The majority of said litter comes from single use plastic items. Through fragmentation and erosion, the plastic dissolves to smaller pieces, once they are no larger than 5 mm they are classified as micro- and nano plastics. Little isknown about these small plastic particles impact on marine life and marine environment. As a step towards understanding this, the Plastic collecting was created. With the help of three filters Plastic collecting gathers marine debris, such as plastic, from the water in which it operates. The filters have decreasing mesh size resulting in the microplastics beingcaught in the last one. Once emptied, the finds can be examined and logged for future referencing. With the help of a sensor, blockages of the filters can be monitored and if detected, notice will be given to the user through a LED. In order for Plastic collecting to move forward and for water to travel through the filters, the robot was provided with two DC motors. A microcontroller, raspberry pi, was used to regulate Plastic collecting functions. Sensors such as turbidity sensor, conductivity sensor, temperature sensor are connected to the raspberry pi. The Raspberry Pi processes the data from the sensors and the camera, using algorithms to detect and collect microplastics in the water and check its purity. The collected data is then transmitted to the Android app, where it can be displayed and analyzed. The robot can be remotely controlled using the Android app, which allows the user to adjust the speed and direction of the motors and view the data collected by the sensors and camera. Overall, the project has the potential to make a significant contribution to the ongoing effort to monitor and improve water quality, and with further research and development, it could become an essential tool for environmental authorities, researchers, and other stakeholders in the field of water management.

CHAPTER 6

CONCLUSION

The pollutants that are dumped in the water body can be recovered and recycled for second use, this not only cleans up the water body but also reduces the carbon footprint of producing new materials as the waste can be recycled. The robot aims to clean up the water body by collecting the pollutant and monitor the water quality in the water body. There are large scale methods to clean up pollutants in the middle of ocean, but there are not a lot to clean coastal/rocky water bodies. This robot can be used but not limited to small water bodies like lakes and ponds. About 0.013% of Earth's water is from lakes, and about 40% of lakes in America are polluted and not fit for human consumption. Though, there are numerous methods to clean the lakes, most of them are based on organic process and it takes a lot of time. The robot would prove efficient to clean those type of water bodies where it is impossible to apply large scale techniques. The information from the robot regarding the pollutants and water quality can be used to draft local laws that would beneficial to the society as a whole.

6.1 FUTURE DIRECTIONS

In future our project can be modified as :

- **Navigation:** Future versions of the robot could incorporate sensors for obstacle detection and autonomous navigation, allowing it to move around water bodies without human intervention.

- **Increased Efficiency:** The robot could be designed with more efficient motors and sensors to improve its performance and reduce power consumption, allowing it to operate for longer periods of time

- **Collaboration with Authorities:** The robot could be used in collaboration with environmental authorities to monitor water quality and detect pollution hotspots, helping to protect aquatic ecosystems and public health.

- **Development of Compact Versions:** Future versions of the robot could be designed to be more compact and portable, allowing them to be easily transported and deployed in different water bodies.

VIRTUAL GREEN ROBOT USING RASPBERRY PI

A PROJECT REPORT

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20|6|2023

ABSTRACT

Agriculture is the most primary and indispensable source to furnish national income of numerous countries including India. Diseases in plants are the serious causes in degrading the production quantity and quality, which results in economy losses. Therefore, in the agricultural field, detection of disease in plants plays an important role. To detect a plant disease in very initial stage, use of a disease detection technique is beneficial. Plant disease symptoms are evident in various parts of plants. However, plant leaves are most used to detect the infection.

In this project, an agricultural robot that detects the leaf disease using image processing is deployed. The local binary pattern algorithm is used for leaf disease detection. This method has good object recognition and classification performance. The pictures are captured with the help of pi camera from the plants.

This robot also monitors the field condition such as soil moisture, atmospheric temperature, humidity and can be used to spray required amount of water for achieving the good yield in agriculture. It also has a pi camera module for navigational purpose.

It also includes a reliable wireless connection, an effective framework for HRI between robots and agriculture workers with the help of an android app. Without such infrastructure being in place, agriculture robots, no matter how advanced in design they could be, would remain impractical and infeasible.

Keywords: Embedded System, Agriculture Robot, Image Processing, LBP, Agriculture Navigation, HRI, Soil Moisture, Temperature-Humidity Sensor, Android App.

CHAPTER 7

CONCLUSION

The virtual green robot deployed can detect plant leaf disease and monitor the field condition by moving around the field. The local binary pattern algorithm is used for leaf disease detection. This method has good object recognition and classification performance. The pictures captured by the pi camera module from the plant leaves is used for image processing.

This robot also monitors the field condition such as soil moisture, atmospheric temperature and humidity. It can be used to spray the required amount of water for achieving the good yield in agriculture. It also includes a reliable wireless connection, an effective framework for HRI between robots and agriculture workers with the help of an android app.

In our future work, we will extend the current functionalities of our system and investigate the chance of incorporating the features of our system to other sectors. The rapid development of IoT has an important influence on realizing intensive agriculture, high yield and high quality, and it will provide solid foundation for the development of agriculture information technologies. The proposal deals with IoT based system using image processing techniques. Once the hardware setup finishes the task, the software part will be done by the image processing techniques. First the images are acquired using pi camera and processed and stored in the database. The image acquired from the camera and from the database will be pre-processed. Then many analytical techniques are carried out to classify the images to detect the leaf disease. Finally using some optimization techniques image of disease is compared with pre-processed images and type of disease will be displayed on the user interface. The robot assembly is built on pairs of wheels, and it is integrated with the hardware parts.

Soil moisture sensor is connected to microcontroller. It is used to detect the moisture content of the soil where crop grows. By detecting the moisture content in the soil, if the moisture content is low compared to the required moisture content, then the water pump attached to the system can be used to sprinkle water.

HEART PULSE MONITORING AND NOTIFICATION SYSTEM

A MINI PROJECT REPORT

Submitted

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This is to certify that the report entitled "**Heart Pulse Monitoring And Notification System**", submitted by AMRUTHENDU K, ANAMIKA P V, ANULAKSHMI C, DEVIKA DINESH E to the APJ Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING** is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose.

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ABSTRACT

As we all know one among the fatal problems which cause the death of humans is respiratory problems. On the off chance that checking our wellbeing consistently, at that point we can identify various sicknesses by recognizing them well in advance. Many individuals have lost their lives to coronary syndromes. Especially at this point time (Corona virus period) doctors cannot physically meet and treat the patients until and unless the situation is critical. So we have developed a system using Internet of Things to assist individuals and help them get immediate treatment. In this system we use a pulse sensor which when a finger is placed on it calculates the heartbeat of the person. In this system there are two segments the hardware which is used to calculate heartbeat and the other is to continuously monitor heartbeat data which is collected in the previous step. This sensor is then interfaced to an Wemos D1 WIFI development board based on ESP8266 12E that permits checking of the heartbeat value and communicating them to the internet . The data is sent to Google Firebase server which continuously monitors the heartbeat for any abnormalities. The readings, along with their respective timestamps, are displayed on an Android app in real-time. The client can set a limit & whenever the client's heartbeat exceeds the threshold limit then by using the app notification to the doctor/client stating the patient's current heartbeat. In this way we are providing a solution to monitor the heartbeat of a patient remotely and give an automated response according to the heartbeat.

CHAPTER 8

CONCLUSION

This covid-19 pandemic has caused many problems to everyone and especially the most affected ones are the patients. Patients whose heart pulse needs to be monitored regularly by the concerned doctors are badly affected by this Covid-19 outbreak. There has been a communication gap formed between these patients and their concerned doctors/caretakers. Due to the implementation of lockdown all over the world, the situation got worse for the patients. This is where our idea flourished to help those section of patients whose heart pulse needs to be monitored regularly. With the help of the knowledge we gained from the concepts of IoT and its applications in medical field, we have researched and studied many research papers related to our problem statement. The main aim of our project is to establish a communication bridge between the patients and the concerned well takers/doctors.

BLUETOOTH-CONTROLLED

FLOOR CLEANING ROBOT

MINI PROJECT REPORT

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ABSTRACT

The advancement of robotics and wireless communication technologies has led to the development of efficient and intelligent cleaning solutions for various applications. This abstract presents a Bluetooth-controlled floor cleaning robot, which combines the convenience of wireless communication with autonomous cleaning capabilities to enhance user experience and efficiency.

The Bluetooth-controlled floor cleaning robot is designed to operate in indoor environments, such as homes, offices, and small commercial spaces. The robot's primary objective is to provide a hassle-free and automated cleaning experience for users, eliminating the need for manual labor.

The robot consists of several key components, including a robust chassis with omnidirectional wheels for enhanced maneuverability, a motorized cleaning mechanism, sensors for environment detection, and a Bluetooth module for wireless communication. The cleaning mechanism typically includes rotating brushes and a suction system to effectively remove dirt, dust, and debris from the floor surface.

CHAPTER 7

CONCLUSION

In conclusion, the Bluetooth-controlled robot with a water pump using Arduino is a versatile nd innovative project that combines wireless communication and motor control. By ntegrating the Arduino UNO, HC-05 Bluetooth module, L298D motor driver board, and other omponents, users can remotely control the robot's movement and activate the water pump as ieeded.

This project offers the convenience of wireless control, allowing users to operate the robot from a distance using a smartphone or any Bluetooth-enabled device. The inclusion of geared notors enables the robot to navigate its environment, perform specific tasks, and adapt to various applications.

By demonstrating the integration of different components and showcasing the potential for customization, the project serves as an excellent learning platform for those interested in robotics, automation, and remote control systems. It highlights the flexibility and adaptability of Arduino-based projects, encouraging further exploration and innovation in this field.

Overall, the Bluetooth-controlled robot with a water pump using Arduino offers a practical and efficient solution for remote control tasks involving movement and cleaning. It represents a step towards smart and automated systems that can be tailored to meet specific needs and applications.

A BLUETOOTH BASED HOME AUTOMATION SYSTEM USING ARDUINO

MINI PROJECT REPORT

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ABSTRACT

Technology is a never ending process. To be able to design a product using the current technology that will be beneficial to the lives of others is a huge contribution to the community. This paper presents the design and implementation of a low cost but yet flexible and secure cell phone based home automation system. The design is based on a standalone Arduino BT board and the home appliances are connected to the input/ output ports of this board via relays. The communication between the cell phone and the Arduino BT board is wireless. This system is designed to be low cost and scalable allowing variety of devices to be controlled with minimum changes to its core.

In this project the home appliances are controlled by smartphone .

CHAPTER 7
CONCLUSION

In this project we have introduced design and implementation of a low cost, flexible and wireless solution to the home automation. The system is secured for access from any user or intruder. The users are expected to acquire pairing password for the Arduino BT and the cell phone to access the home appliances. This adds a protection from unauthorized users. This system can be used as a test bed for any appliances that requires on-off switching applications without any internet connection .The full functionality of the home automation system was tested and the wireless communication between the cell phone and Arduino BT was found to be limited to <50m in a concreted building and maximum of 100m range was reported to be applicable in an open range. Right now the Symbian OS cell phones only support Python scripts. For future work it is recommended to develop the GUI application for the cell phone to be written in Java so that it can be supported by most of the cell phones available nowadays.

HAND GESTURE CONTROLLED ROBOT

MINI PROJECT REPORT

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ABSTRACT

The traditional wired buttons controlled robot becomes very bulgy and it also limits the distance the robot goes. The Wireless Hand controlled Robot will function by a wearable hand glove from which the movements of the hand can be used as the input for the movement of the robot. Hand Gesture Controlled Robot is a robot which can be controlled by simple human hand gestures. The user just needs to wear a gesture device in which a sensor is included. The sensor will record the movement of hand in a specific direction which will result in the motion of the robot in the respective directions. The robot and the Gesture instrument are connected wirelessly through radio waves. User can interact with the robot in a more friendly way due to the wireless communication. We can control the robot using accelerometer sensors connected to a hand glove. The sensors are intended to replace the remote control that is generally used to run the car. It will allow user to control the forward, backward, leftward and rightward movements, while using the same accelerometer sensor to control the throttle of the robot. Movement of car is controlled by the differential mechanism. The mechanism involves the rotation of both forth & rear wheels of left or right side to move in the anticlockwise direction and the other pair to rotate in the clockwise direction which makes the car to rotate about its own axis without any kind of forward or backward motion. The main advantage of this mechanism is the car with this mechanism can take sharp turn without any difficulty.

CHAPTER 7

CONCLUSION

The main objective of the project was to build a robotic system that would run with the help of the hand gestures obtained from the Accelerometer MPU6050using wireless RF communication. An Arduino Nano and Arduino UNO board was used as a microcontroller for transmitter and receiver part. The robot is showing proper movements for the pre-determined and calibrated different hand gestures.

The data from the hand movements with the help of the accelerometer are fed into the Arduino Nano. Then the values are transmitted with the help of NRF24.Rx NRF24 receives the values in the receiver part, where it is send to Arduino UNO, which sends corresponding signals as per the transmitter data and sent to the motor driver L298D. Thus motors are controlled with the data obtained from the motor driver.

WOMEN SAFETY SYSTEM USING AURDINO UNO MICROCONTROLLER

MINI PROJECT REPORT

Submitted by

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THOMAS GEORGE(VML20EC050)

VISHNU PRIYA K(VML20EC052)

to

APJ Abdul Kalam Technological University

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY
In
ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

JULY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that the report entitled **"WOMEN SAFETY SYSTEM USING AURDINO UNO MICROCONTROLLER"**, submitted by **ALAIDA THOMAS, SARATH SASEENDRAN, THOMAS GEORGE, VISHNU PRIYA K** to the A P J Abdul Kalam Technological University in partial fulfillment of the requirement for the award of the Degree of Bachelor of Technology in **ELECTRONICS AND COMMUNICATION ENGINEERING** is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose.

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ABSTRACT

The security of women especially in India becomes an important problem now a day. Women are not secure in public places even in day time. Something serious and long lasting should be to bring about an atmosphere that is conducive for women to live in peace and security. This project utilizes the satellite GPS receiver system. It gives the geological information about the place where the receiver is in the earth. In our system, we have a matrix keyboard to enter the phone number of the authorized person to whom the SMS and call alert to be attached. An emergency switch is provided in the system for the activation of emergency SMS or call alert. An LCD is interfaced to the system for the displaying of data transfer and the present status of the system of the system and a project work. A GSM modem is attached to the microcontroller through serial interfacing circuit to access the GSM network to this project.

CHAPTER 8

CONCLUSION

This paper presents the whole working process of our system. There are six (6) chapter in this paper. Introduction chapter has detail introduction of this project, objective of our system, justification to make this project and about the scope of this project. Literature review chapter has some review about the relevant project of our field. Methodology chapter has detail description about the workflow which we used during the time of project completion. We gave here the justification workflow as well. We have discussed about hardware requirement, software requirement, block diagram, circuit diagram, use case diagram, flowchart. About the working principle we have discussed in the chapter project description. Finally, we gave repetition of our project. We also have discussed that how much effective of our project in practical life. In the conclusion we gave some statement about the limitation and the scope of future improvement of this project. The proposed design will deal with critical issues faced by women in the near past and will help to solve them with technically sound equipment's and ideas. This system can overcome the fear that scares every woman in the country about her safety and security.

Arduino Based Student Attendance System with GSM and Fingerprint

A MINI PROJECT REPORT

Submitted

By

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ABSTRACT

The Arduino-based student attendance system with GSM and fingerprint technology is a novel approach to automate and streamline the attendance tracking process in educational institutions. This system integrates Arduino, Global System for Mobile Communications (GSM) module, and fingerprint sensor to accurately record and monitor student attendance. The system begins by enrolling the fingerprints of all the students into a database, associating each fingerprint with a unique identifier. When a student arrives at the institution, they place their finger on the fingerprint sensor, which captures their fingerprint image. The Arduino microcontroller processes the image and compares it with the stored fingerprints in the database to identify the student. Once the student is identified, the attendance record is updated in real-time. The Arduino communicates with the GSM module to send an SMS or notification to the designated individuals, such as teachers or parents, informing them about the student's arrival. This instant notification ensures prompt information dissemination and facilitates better monitoring of student attendance. Moreover, the system maintains a comprehensive attendance log, storing all the attendance records in a secure and centralized database. This allows for easy retrieval of attendance data for administrative purposes, such as generating reports, calculating attendance percentages, and identifying patterns or trends.

The Arduino-based student attendance system with GSM and fingerprint technology offers several advantages over traditional manual attendance systems. It eliminates the need for paper-based registers, reduces the chances of proxy attendance, minimizes administrative overhead, and enhances efficiency and accuracy in attendance tracking. In conclusion, this system presents an effective and reliable solution for automating student attendance management in educational institutions, utilizing Arduino, GSM, and fingerprint technology to ensure real-time attendance monitoring and convenient data management.

CHAPTER 7

CONCLUSION

In conclusion, the Arduino-based student attendance system with GSM and fingerprint technology is an innovative mini project that offers an efficient and secure way to manage student attendance. By combining Arduino, GSM, and fingerprint recognition technologies, this system provides several benefits.Firstly, the system ensures accurate attendance tracking. The fingerprint recognition feature eliminates the possibility of proxy attendance, ensuring that only authorized individuals can mark their attendance. This enhances the reliability of attendance records, reducing the chances of errors or fraudulent activities. Secondly, the integration of GSM technology allows for real-time communication and data transfer. Attendance data can be instantly sent to a central database or a designated server, enabling immediate access to attendance records for administrators, teachers, and parents. This real-time feature enhances transparency and enables timely interventions when required. Moreover, the Arduino platform provides a flexible and customizable framework for implementing the attendance system. It allows for easy integration with other hardware components and sensors, facilitating future enhancements or modifications based on specific requirements. The Arduino community also offers extensive resources, tutorials, and libraries, making it accessible for beginners and experienced developers alike. Additionally, the project can serve as a learning opportunity for students interested in embedded systems, microcontrollers, and sensor integration. It provides hands-on experience in programming, circuit design, and system integration, fostering practical skills and knowledge in the field of electronics and automation. However, it is important to note that the success and effectiveness of the Arduino-based student attendance system rely on various factors such as the accuracy and reliability of the fingerprint sensor, GSM network availability, and proper implementation of the system. Additionally, the system's scalability and integration with existing infrastructure should be considered for larger educational institutions. Overall, this mini project demonstrates the potential of Arduino and related technologies in creating practical solutions for managing student attendance. It combines the convenience of GSM communication, the security of fingerprint recognition, and the flexibility of the Arduino platform to offer a reliable and efficient system for educational institutions.

RFID DOOR LOCK

Door Lock System Using Arduino Uno & RFID RC522 Module

A MINI PROJECT REPORT

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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This is to certify that the Project Report entitled **"RFID DOOR LOCK, Door Lock System Using Arduino Uno & RFID RC522 Module"**, is a bona fide record of the Project done by **KSHEERA SAJEESH (VML20EC032), PRANAV N (VML20EC040), NAVYA M (VML20EC037), SREERAG K P (VML20EC053)** under our guidance towards the partial fulfilment of the requirements for the award of the Degree of Bachelor of technology in Electronics & communication Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

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ABSTRACT

Access Control is an important technique in the field of Security, where personnel may have restricted access to enter a place, use an object or consume something. Authorization is the process of verifying the credentials of a person and granting permission to access the resource. Electronics Access Control or EAC is a simple concept which uses a computer system to overcome the limitations of physical lock and keys. One such authentication is using RFID based access control system which authenticates persons using Smart Cards and Key Fobs. RFID devices is used as a substitute of bar code or a magnetic strip which is noticed at the back of an ATM card or credit card, it gives a unique identification code to each item. And similar to the magnetic strip or bar code, RFID devices too have to be scanned to get the details. Traditional lock systems use mechanical lock and key mechanism and these are being replaced my RFID based systems. One of the prominent features of this lock system is their simplicity and high efficiency. The locking system consist of an electronic control assembly which controls the mechanical system. The mechanical system is a solenoid lock. A solenoid door lock is a remote door locking mechanism that latches or opens by means of an electromagnetic solenoid. Each & every RFID card has its unique ID, so no one can open the door lock with another card. We can register many Cards to the same system and provide the door lock access to multiple users this way.

CHAPTER 9

CONCLUSION

Door locks have been a big part of our lives. These things are designed to keep us safe and protected from potential dangers such as intruders and thieves. They allow us to live peacefully since locks are specifically made to provide not only security but protection as well. Obviously, no one wants to live in a place that doesn't have a lock and door. With door locks, we don't have to worry about criminals breaking into our house or office at an inconvenient time. Since most door locks are quite durable and can withstand medium to heavy impacts, it allows us to easily prevent the bad guys from breaking into our property. RFID door locks are highly efficient and it allows key less entry. We don't have to even touch the door lock to open it. In this pandemic period such locks are very much needed.

SMART DUSTBIN USING ARDUINO, ULTRASONIC SENSOR, AND SERVO MOTOR

MINI PROJECT REPORT

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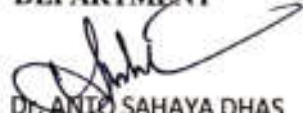Engineering

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ABSTRACT

In recent decades, urbanization has increased tremendously. During the same phase, there is an increase in waste production. Waste management has been a crucial issue to be considered. This proposal is a way to achieve this good cause.

In this project smart dustbin is built on a microcontroller-based platform Arduino Uno board which is interfaced with the Servo motor and ultrasonic sensor. The ultrasonic sensor is placed at the top of the dustbin which will measure the stature of the dustbins. The threshold stature is set at a particular level. Arduino will be programmed in such a way that when someone comes in front of the dustbin the servo motor will come into action and open the lid for the person to put the waste material into the dustbin. Once these smart bins are implemented on a large scale, by replacing our traditional bins present today, waste can be managed efficiently as it avoids unnecessary lumping of waste on the roadside. The foul smell from these rotten wastes that remain untreated for a long time, due to the negligence of authorities and carelessness of the public may lead to long-term problems. Breeding of insects and mosquitoes can create a nuisance around promoting an unclean environment. This may even cause dreadful diseases.

CHAPTER 7

CONCLUSION

Through our project frame work a preliminary idea for result oriented work is obtained for smart dustbin. A simple but useful project called smart dustbin using Arduino, ultrasonic sensor and servo motor is obtained here. smart dustbin that will help in keeping our environment clean and also eco-friendly. Nowadays technologies are getting smarter day-by-day so, Soto clean the environment we are designing a smart dustbin using Arduino. This smart dustbin management system is built on a microcontroller-based system having ultrasonic sensors on the dustbin. If dustbin is not maintained, then these can cause an unhealthy environment and can cause pollution that affect our health. In this proposed technology we have designed a smart dustbin using ARDUINO UNO, along with an ultrasonic sensor, servo motor, and battery jumper wire. After all hardware and software connections, now Smart Dustbin program will be run. The dustbin lid will when someone comes near at some range then wait for the user to put the garbage and close it.

WATER QUALITY MONITORING AND NOTIFICATION SYSTEM

MINI PROJECT REPORT

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This is to certify that the report entitled "WATER QUALITY MONITORING AND NOTIFICATION SYSTEM", submitted by HARICHANDANA D, JOHNS JIJI, RONEX PALLATH and SANDRA ELIZEBATH ALEX to the A P J Abdul Kalam Technological University in partial fulfillment of the requirement for the award for the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose.

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CHAPTER 8

CONCLUSION

In conclusion, the water quality monitoring and notification system developed using Arduino Mega, pH sensor, temperature sensor, and turbidity sensor is an effective and efficient solution for monitoring and maintaining water quality.

By integrating these sensors with the Arduino Mega microcontroller, the system can continuously monitor key parameters of water quality, including pH level, temperature, and turbidity. The pH sensor measures the acidity or alkalinity of the water, the temperature sensor provides information about the water's temperature, and the turbidity sensor measures the level of suspended particles or clarity of the water.

The Arduino Mega serves as the central processing unit, collecting data from the sensors and analyzing it in real-time. The system can be programmed to set specific thresholds for each parameter, allowing it to detect and alert any deviations from the desired water quality standards.

The notification system plays a vital role in providing timely alerts or notifications to users or stakeholders. It can be configured to send notifications via SMS, email, or through a mobile application. This enables quick response and intervention in case of any water quality issues, preventing potential health risks or environmental concerns.

Overall, this water quality monitoring and notification system offers a cost-effective and scalable solution for monitoring water quality in various settings such as homes, industries, or water treatment facilities. It empowers individuals and organizations to take proactive measures to ensure the safety and integrity of water resources.

AUTOMATIC WATER TAP USING ARDUINO

MINI PROJECT REPORT

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ABSTRACT

The abstract of the automatic water tap project provides a concise summary of the key aspects and objectives of the project.

The automatic water tap project aims to enhance water usage efficiency and promote hygienic practices through the implementation of sensor-based technology and automation. By incorporating proximity sensors, the system detects hand movements or objects, allowing for touchless operation and reducing water wastage. The system also offers smart features such as adjustable water flow and temperature control, enabling customized and convenient user experiences. Additionally, data monitoring capabilities facilitate water consumption analysis and promote conservation efforts. The automatic water tap system presents a promising solution for homes, public facilities, and commercial establishments to optimize water usage, improve hygiene, and foster sustainable practices.

CHAPTER 8

CONCLUSION

In conclusion, the automatic water tap system offers several advantages and possibilities for enhancing water usage efficiency and convenience. By incorporating sensor-based technology and automation, it eliminates the need for manual operation, reducing water wastage and promoting hygiene. The system's ability to detect hand movements or objects enables touchless operation, minimizing the risk of cross-contamination and promoting a hygienic environment. Additionally, the automatic water tap system can be integrated with smart features such as water flow control, temperature adjustment, and data monitoring, allowing for efficient water management and conservation. Overall, the automatic water tap system presents a promising solution to enhance user experience, conserve water resources, and promote sustainable practices in various settings, including homes, public facilities, and commercial establishments.

ARDUINO BASED BRIGHTNESS CONTROLLING SYSTEM WITH VOICE COMMAND USING BLUETOOTH MODULE.

MINI PROJECT REPORT

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ABSTRACT

Energy conservation is a critical issue in today's world and its very much needed for every individual to be acting over such an issue. Management of energy is a very important in order to preserve resources for future generation. To help resolve this issue we propose an automatic brightness adjustment light using Arduino. This world is full of different kind of light sources some are natural ones while others are man-made light sources. The man-made light sources have only two modes of operation that is switch on and switch off there is no intermediate level that can be set according to the surrounding lighting condition and at the end everything needs to be controlled manually. These lead to wastage of electricity and at the same time a manual control is not effective in the modern era. So, we purpose an advanced light control system which is capable of replacing the old generation light control system. The system is implemented on an embedded platform & is equipped with a photo sensitive detector (LDR) which gives the required input for operation, The working of our light control system is based on the amount of luminous energy in the environment at that moment of time. Depending upon the light intensity at that instant the lighting of the lighting system is adjusted. This project describes Arduino based brightness controlling system with Bluetooth module. This is a PIR based motion sensor activated light and using an LDR (photoresistor) to automatically adjust the brightness of the light i.e., at night the light will be in full brightness and in the morning if the sunlight is low then the light will automatically turn on with a suitable brightness and incase if needed, we can turn off using voice command. By using the sensor and timer, it can reduce energy usage by turn off or dim the light automatic such as when Day the LDR sensor resistance will decrease because of daylight and when night the light illuminated on LDR will decrease and the resistance on LDR will increase high. A PIR movement sensor/detector is designed to switch on the light automatically every time the sensor detects even the slightest movement. In a crowded room, where lots of people are coming in and out, the motion sensor will continue to detect movement and the light will remain on.

CHAPTER 7

CONCLUSION

In this automatic street light system, we can try to reduce manual work to ON and OFF switches. The system itself detects whether there is a need for light or not. When darkness rises to a certain value and a person is detected. The proposed streetlight automation system is cost-effective and the safest way to reduce power consumption. It helps us to get rid of today's world problems of manual switching and most importantly, primary cost and maintenance can be decreased easily. It reduces the unnecessary use of electricity. It provides an efficient and smart automatic streetlight control system with the help of LDR and PIR sensors. It can reduce energy consumption and maintains the cost. This system is very versatile, extendable, and adjustable to user needs. We do not have to manually turn on and off these streetlights as they turn on and off all by themselves according to the intensity of the surrounding's light. The main purpose of this project is to prevent the loss of electricity unnecessarily during the daytime and in absence of any person to make the system more efficient than before. This system can be easily implemented in streetlights, smart cities, home automation, agriculture field monitoring, forest animal monitoring, parking areas, and other public and private places.

ACTIVE MOBILE PHONE DETECTOR

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ABSTRACT

Students use mobile-phones to store lecture-materials, e-books, tutorials, videos, communicate with their classmates and browse the internet for exceedingly-different-intentions. These projected-advantages, however, would have potential-undesirable-effects if mobile-phones are utilized in restricted-premises, such as exam-venues .Noncompliant- students do use mobile-phones to cheat in exams. The rapid-explosion of cell-phones at the beginning of the 21st Century eventually raised problems, such as their potential-use to invade privacy or contribute to widespread academic-cheating. A mobile-detector with a range of 1-1.5m, using resistor-capacitor-circuit, which can detect both the incoming and outgoing-calls, as well as messages, even if a mobile-phone is kept at the silent mode is designed and thus, it can be used to scan students (without physical-inspection) on their entering examination-rooms. Overall, the results of this-concise-study are rather-positive, providing a good-starting-point for advanced investigations and improvements of the same.

CHAPTER 7
CONCLUSION

The active mobile phone detector is an important tool used to detect the presence of active mobile phones in a given area. It serves various purposes, including enforcing no-phone policies in sensitive areas such as hospitals, educational institutions, and secure facilities, as well as improving public safety by preventing the use of mobile phones while driving. Based on the available information, it can be concluded that active mobile phone detectors have proven to be effective in identifying and locating active mobile phones. These devices typically use radio frequency (RF) detection techniques to scan for signals emitted by mobile phones. When a mobile phone is detected, the device alerts the user or the relevant authorities, allowing appropriate action to be taken. Active mobile phone detectors are often used in combination with other security measures to enhance overall safety. They can be particularly valuable in situations where the use of mobile phones poses a significant risk, such as preventing distractions in critical operations or maintaining privacy in confidential settings. However, it's worth noting that the effectiveness of active mobile phone detectors can be influenced by various factors, such as signal strength, interference, and the type of detection technology used. Additionally, the legality and regulations surrounding the use of such devices may vary depending on the jurisdiction. In conclusion, active mobile phone detectors offer a valuable solution for detecting active mobile phones and enforcing no-phone policies in various settings. Their usage can contribute to improved security, privacy, and public safety when appropriately implemented and adhering to legal and ethical guidelines.

AUTOMATIC ROOM LIGHTS USING

ARDUINO AND PIR SENSOR

MINI PROJECT REPORT

Submitted by

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to

APJ Abdul Kalam Technological University

in partial fulfillment for the award of the degree of

BACHELOR OF TECHNOLOGY
In
ELECTRONICS AND COMMUNICATION ENGINEERING

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
VIMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI

JULY 2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

BONAFIDE CERTIFICATE

This is to certify that the report entitled "AUTOMATIC ROOM LIGHTS USING ARDUINO AND PIR SENSOR" , submitted by ABHINAYA HARINDRAN, ASHWIN AJITH, HELNA SAJI and SANJU PS to the A P J Abdul Kalam Technological University in partial fulfillment of the requirementfor the award of the Degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING is a bonafide record of the project work carried out by them under our guidance and supervision. This report in any form has not been submitted to any University or Institute for any purpose

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CONCLUSION

Based on the components used and the description of the project, it appears that this project is a simple home automation system that uses an Arduino Uno microcontroller, a PIR sensor, and a relay module to control the lights in a room based on motion detection. The PIR sensor detects motion in the room, and sends a signal to the Arduino board, which in turn controls the relay module to turn on or off the lights in the room. The project is a good example of how simple electronic components can be used to create useful and practical applications. The project could be expanded to include additional sensors and devices, such as temperature sensors or smart switches, to create a more comprehensive home automation system

AUTOMATIC POLLUTION DETECTION IN VEHICLES

PROJECT PHASE-II REPORT

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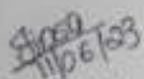
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ABSTRACT

Vehicles have become an integral part of every one's life. Situations and circumstances demand the usage of vehicles in this fast paced urban life. As a coin has two sides, this has its own effects, one of the main side effects being air pollution. Every vehicle will have emission but the problem occurs when it is beyond the standardized values. The primary reason for this breach of emission level being the incomplete combustion of fuel supplied to engine, which is due to the improper maintenance of vehicles.

This emission from vehicles cannot be completely avoided but, it definitely can be controlled. With the evolvement of semi-conductor sensors for detecting the various gases, this project aims at using those semi-conductor sensors MQ135 at the emission outlets of vehicles which detects the level of pollutants and also indicates this level with a meter. When the pollution/emission level shoots beyond the already set threshold level, there will be a buzz in the vehicle to indicate that the limit has been breached and the vehicle owner will get a warning message. After a couple of warning message which is sent in each 24 hours and if the vehicle does not report to a service station a message is sent to motor vehicle department whom may takes necessary action.

CHAPTER 8
CONCLUSION

Vehicles have become an integral part of every one's life. This emission from vehicles cannot be completely avoided but, it definitely can be controlled. There is an increase in the level of Pollution over the last couple of decades, leading to several Environmental problems. Hence this system will be highly beneficial in curbing this problem. The First thing is the concept of detecting the level of Pollution and indicating it to the driver. The fact that this system is just an add-on, as it does not change the configuration of the engine by any means, will make it easier to employ this system in the existing vehicles. The same concept can also be extended to industries..

IOT BASED DAM MONITORING AND MANAGEMENT SYSTEM USING PLC

PROJECT PHASE-II REPORT

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In the partial fulfilment for the award of the Degree

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ABSTRACT

The technological advancement of the current era has affected the processes of the most of the economic and social related businesses. The aim of this advancement is to serve and make human life more comfortable. However, there are still lots of areas in our daily life where manual processes are used. Taking as an example in the water control and management systems, where many authorities use manual systems for water control and management. Especially, nowadays most of the countries are still using manual system for controlling and monitoring the dams. Due to the complicated and time-consuming process in a manual system, a model for Remote Monitoring and Controlling of Dams is proposed that uses remote control technology, linked to the web technology, to attain great success in monitoring and controlling water levels in managing dams. This project gives an outline for the development of an information system based on the existing systems with the utilization of some sensors and Internet of Things (IoT). The people and authorities will get alerted by the application of IoT and the shutter control of the dam is done by the application of Programmable Logic Controllers (PLC).

CHAPTER 8

CONCLUSION

In conclusion, the IoT-based dam monitoring and management system using PLC, ultrasonic sensor, ADXL accelerometer, and DHT11, combined with alert mechanisms for residents, local authorities, and emergency services, has been demonstrated to be a robust and efficient solution for improving dam management and enhancing public safety. This system offers real-time data on the dam's condition, enabling preventive measures to be taken to avoid potential disasters and ensure the safety of nearby communities. By automating control systems and providing real-time data, this system can significantly reduce maintenance costs and improve the overall efficiency of dam management.

PIPE INSPECTION AND CLEANING ROBOT
PROJECT PHASE-II REPORT

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ABSTRACT

One of the newest ideas in professional service robots is the pipe cleaning and inspection robot. Typically, sewer pipes are classified as non-man-entry (less than 0.8 m diameter). In this work, a robot with this specific purpose pipe cleaning and inspection is suggested. In an uncharted pipe environment, this research proposes a novel method for designing and developing cleaning robots. The communication that enables the cleaning robot to move through the sewer pipe is discussed in this paper. The cleaning of pipelines in various industrial environments is a risky and laborious work which poses a threat to the human workers involved. This work involves the design and fabrication of an autonomous industrial pipe cleaning robot. This device if implemented on a larger scale has potential applications in online cleaning of chemical or multipurpose industrial pipelines, water pipelines, drain pipes etc. Finally, we use actual tests and experiments to assess the effectiveness of our suggested inspection and cleaning procedures.

CHAPTER 7

CONCLUSION

A new type of IR crack detection and cleaning tool has been presented in this research using autonomous pipeline robot. The enhancements accomplished by the new design that make the In-Pipe Inspection Robots (IPIRs) with IR and ultrasonic inspection more competitive. An actual prototype was developed to check the viability of inspection of this kind of robot. The major advantage is that the system has ability to record and display the view of the pipe and the employees monitor display screen for effective observation, detection, quick analysis, cleaning and diagnosis. This robot if implemented on a larger scale can be used for online cleaning of chemical or multipurpose industrial pipelines, water pipelines, drain pipes etc. The robot also has potential application in chemical industries and for cleaning of gas and oil pipelines using abrasive cleaning.

EYE DIRECTIVE WHEELCHAIR

PROJECT PHASE-II REPORT

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ABSTRACT

Independent mobility is core to being able to perform activities of daily living by oneself. However, powered wheelchairs are not an option for a large number of people who are unable to use conventional interfaces, due to severe motor-disabilities. In this article we present a shared control architecture that couples the intelligence and desires of the user with the precision of a powered wheelchair.

In this paper, to overcome the limitations of previously existing technologies we have used Eye blink signals to operate the wheelchair. An eye directive wheelchair with obstacle detection is a type of wheelchair that is designed to assist people with mobility impairments. The sensor sends signals to a computer, which processes the information and directs the wheelchair's movements accordingly.

Eye directive technology, also known as gaze detection, is used to control the wheelchair's movements. The obstacle detection feature of this type of wheelchair is essential for ensuring the safety of the user. This allows the user to avoid the obstacle or adjust their course accordingly.

CHAPTER 7

CONCLUSION

The project is to bring mobility back to people who are facing physical disorders and for the paralyzed patients who can't move on their own without someone's assistance. The ongoing research and development works in the field of eye controlled robots have received a great attention all over the globe because they can help physically disabled people to move independently. We have used IR sensor which is used to capture the Eye blink status. Arduino Uno board is used to control the movement of the wheelchair.

Ultrasonic sensor is used for obstacle avoidance thereby ensuring the safety of user. In terms of cost our project is very cost-effective because the controlling commands of the robot are given in real time. Also, the commands are just eye blinking which can be easily done by the user.

A SMART DRIVER MONITORING SYSTEM USING RASPBERRY PI

PROJECT PHASE-II REPORT

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This is to certify that the Project Phase-II report entitled "A SMART DRIVER MONITORING SYSTEM USING RASPBERRY PI " is a bonafide record of the AED416 Project Phase-II done by **ALJO JOHN, ANJO MATHEW, ASWIN J PRASAD, ASWIN THOMAS** under our guidance towards the partial fulfillment of the requirements for the award of the Degree of Bachelor of Technology in Applied Electronics and Instrumentation Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

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ABSTRACT

Driver fatigue and drowsiness is an ever-rising issue that could place a lot of entities at risk. The associated problems are not only dangerous for the driver and the passenger but they pose a negative image on an industry that functions using drivers that work long hours in tough road conditions.

In this work, proposed to develop a driver drowsiness detector based on image processing. The system created will work based on vehicle details received from the OBD-II and the camera mounted on the dashboard to monitor the driver.

The system is developed with the aim to provide a novel solution to driver drowsiness detection on-board whilst the car is being driven.
The mechanism provided is both non-intrusive and involves the use of machine learning that will provide an accurate result that averts the major cause of road-based accidents.

Driver is monitored by a alcohol sensor and when alcohol is detected, vehicle ignition is cut off. When drowsiness is detected ,vehicle brakes automatically, providing an electronically operated passive braking system to avoid collision or at the least reduce the severity of the collision.

CHAPTER 7

CONCLUSION

Real-time data from the car is constantly monitored and the dash camera feed checks for parameters related to driver drowsiness and sounds an alarm successfully. The on-board Multimedia Tools and Applications vehicle data is displayed when required by the fleet management company as and when required to check any diversion or discrepancy. This system if imparted in large scale with robust fail checks would prove to be a boon for large fleet management companies and could infiltrate the private and public vehicle owned space effectively and efficiently. An added advantage is when the insurance company is involved where specific proof can be provided to avoid misuse or rather claim what is right.

Also Proposed arrangement used for intelligent braking system has a lot of potential applications especially in developed countries where research on smart vehicles is receiving ample attention. The anti- braking system also reduce the probability and depth of the road based accidents.

VIMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI, KANNUR
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AED334 MINIPROJECT REPORT

SELF BALANCING ROBOT

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ABSTRACT

This paper presents a dynamic model and control strategies for a two-wheeled self-balancing robot. The dynamic model of the under study two-wheeled self-balancing robot is calculated based on Newtonian methods and the control strategies are designed based on the calculated dynamic model which is constructed for this paper. The parameters of the proposed robot which are used for controlling the proposed robot are tilt angle and displacement of the proposed robot. Based on the system zeroes and poles location which are calculated based on transfer functions of the under study robot, proportional derivative and proportional integral derivative controllers are designed. The controller's parameters are tuned with the Genetic algorithm. Fuzzy logics are used to improve the balance ability especially under external forces. The experimental results of implementing the proportional derivative controller represented that a slight vibration appeared on the body of the proposed robot and it fell down after a few seconds. The proportional integral derivative controller improved the stability of the proposed robot but the robot fell down when an external force was applied on the body of it. After implementing the designed Fuzzy-PID controller on the under study two-wheeled self-balancing robot, the stability of the under study two-wheel self-balancing robot under external forces is improved impressively.

CHAPTER 7

CONCLUSION

PID-controlled self-balancing robots offer a promising and versatile solution for various industries and applications. The implementation of a PID (Proportional-Integral-Derivative) control algorithm enables these robots to maintain stability and balance in dynamic environments. By continuously adjusting their position based on sensor feedback, PID-controlled self-balancing robots can adapt to changing conditions and make real-time corrections to maintain equilibrium.

The future scope of PID-controlled self-balancing robots is vast and encompasses areas such as personal mobility, warehousing and logistics, healthcare and elderly assistance, surveillance and security, entertainment and education, industrial applications, agriculture, disaster response, environmental monitoring, and retail and customer service.

These robots have the potential to revolutionize transportation, automate material handling, enhance healthcare support, improve security measures, provide educational and entertainment experiences, streamline industrial processes, optimize agricultural practices, aid in disaster response efforts, monitor and conserve the environment, and enhance customer experiences in retail settings.with advancements in technology, the future of PID-controlled self-balancing robots holds tremendous opportunities for innovation, efficiency, and improved quality of life. As research and development continue to push the boundaries of robotics and control systems, we can expect these robots to become more sophisticated, capable, and seamlessly integrated into our daily lives, making significant contributions across various industries and sectors.

VIMAL JYOTHI ENGINEERING COLLEGE
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AED334 MINIPROJECT REPORT
MOBILE PHONE DETECTOR

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ABSTRACT

Students use mobile-phones to store lecture-materials, e-books, tutorials, videos, communicate with their classmates and browse the internet for exceedingly-different-intentions. These projected advantages, however, would have potential-undesirable-effects if mobile-phones are utilized in restricted-premises, such as exam-venues .Non-compliant- students do use mobile-phones to cheat in exams. The rapid-explosion of cell-phones at the beginning of the 21st Century eventually raised problems, such as their potential-use to invade privacy or contribute to widespread academic cheating. A mobile-detector with a range of 1 to 2.5m, using resistor-capacitor-circuit, which can detect both the incoming and outgoing-calls, as well as messages, even if a mobile-phone is kept at the silent mode is designed and thus, it can be used to scan students (without physical-inspection) on their entering examination-rooms. Overall, the results of this-concise-study are rather-positive, providing a good-starting-point for advanced investigations and improvements of the same.

CHAPTER 7

CONCLUSION

The mobile phone detector is an important tool used to detect the presence of active mobile phones in a given area. It serves various purposes, including enforcing no-phone policies in sensitive areas such as hospitals, educational institutions, and secure facilities, as well as improving public safety by preventing the use of mobile phones while driving. Based on the available information, it can be concluded that active mobile phone detectors have proven to be effective in identifying and locating active mobile phones. These devices typically use radio frequency (RF) detection techniques to scan for signals emitted by mobile phones. When a mobile phone is detected, the device alerts the user or the relevant authorities, allowing appropriate action to be taken. Active mobile phone detectors are often used in combination with other security measures to enhance overall safety. They can be particularly valuable in situations where the use of mobile phones poses a significant risk, such as preventing distractions in critical operations or maintaining privacy in confidential settings. However, it's worth noting that the effectiveness of active mobile phone detectors can be influenced by various factors, such as signal strength, interference, and the type of detection technology used. Additionally, the legality and regulations surrounding the use of such devices may vary depending on the jurisdiction. In conclusion, active mobile phone detectors offer a valuable solution for detecting active mobile phones and enforcing no-phone policies in various settings. Their usage can contribute to improved security, privacy, and public safety when appropriately implemented and adhering to legal and ethical guidelines.

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AED334 MINIPROJECT REPORT

CNC PLOTTER

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iii

ABSTRACT

Sketching a picture is now also belongs to technology. Computer Numerical Control or CNC Plotter sketches picture controlled by a computer. CNC plotter is a 3D controlled machine which sketches a 2D picture of an object. It is used in different industry, workshop, factory where need to sketch any complex design or need to cut different metal in precise shape. The complete system of a CNC machine is large, costly and difficult to move from one place to another. In this project a low-cost CNC plotter is designed to mitigate the difficulties. To design this system three axis controlling unit is needed to control X, Y and Z axis position. All the three axis are controlled by 3 stepper motor. To control this machine, a computer has been used to create and load G-code which sets the coordinates of X, Y and Z axis. Arduino IDE is used as the programming software and JSCut website is used to generate G-code. UGS software is used send gcode to Arduino. This machine's movement on the X axis is 150 mm and Y axis is 150 mm.

CHAPTER 7

CONCLUSION

The CNC plotter machine are mostly used in workshop for plot a design. In this system, A CNC plotter machine has developed that can sketch a picture or design. This is very simple application. The required area and cost of this machine is very low and the most delighting feature of the device is it is portable. CNC plotter is a 3D controlled machine which sketches a 2D picture of an object. This can be transported and assembled easily. This machine is cost effective. The system design is done under close supervision with great care of circuit designing and assembling. The hardest part in the making of CNC plotter was to synchronize three stepper motors.

VIMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI, KANNUR
2023

AED334 MINI PROJECT REPORT

HOUSEHOLD GAS DETECTION SYSTEM

Project Team

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MUHAMMED SAHL MTC(VML20AE019)

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI, KANNUR -2019

CERTIFICATE

This is to certify that the report entitled "HOUSEHOLD GAS DETECTION SYSTEM" is a bonafide record of the AED334 Mini Project done by ANARGH K, MUHAMMED SAHL MTC, VYSHNAV K under our guidance towards the partial fulfilment of the requirements for the award of the Degree of Bachelor of technology in Electronics and Instrumentation Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

Project Guide	Project Coordinator	Head of Department
Mrs. Shamya A	Mr. Shinu MM	Dr.GlanDevadhas
Assistant Professor	Assistant Professor	Vice Principal & Professor
Department of AEI	Department of AEI	VJEC Chemperi
VJEC Chemperi	VJEC Chemperi	

ABSTRACT

This project report presents the design, development, and evaluation of a gas detection system based on Arduino, aimed at providing an affordable and accessible solution for detecting hazardous gases in various environments. The system utilises Arduino microcontrollers and gas sensors to detect the presence of gases and generate timely alerts to ensure safety and prevent accidents.

The project begins with a comprehensive study of gas sensing technologies and Arduino programming techniques. Gas sensors compatible with Arduino platforms are selected based on their sensitivity, reliability, and cost-effectiveness. The sensors are integrated into the Arduino system, along with supporting circuitry and components.

The gas detection system incorporates a user-friendly interface, allowing for easy setup and configuration. The system utilises the Arduino's analog-to-digital conversion capabilities to measure gas concentrations and employs appropriate calibration techniques to ensure accurate readings. The Arduino also controls the system's display unit, alarm system, and data logging functions.

CHAPTER 9

CONCLUSION

In conclusion, the development and implementation of a household gas detection system using Arduino technology has proven to be a significant advancement in ensuring the safety and well-being of individuals and their homes. The system effectively detects and alerts users of potential gas leaks, mitigating the risks associated with gas-related accidents and incidents.

Through the integration of Arduino microcontrollers and gas sensors, the system offers reliable and real-time monitoring of various gases commonly found in households, such as methane, propane, and carbon monoxide. The use of Arduino provides flexibility, affordability, and ease of customization, making it an ideal platform for creating a personalised gas detection solution.

The system's ability to provide immediate alerts through visual indicators, audible alarms, and even remote notifications via smartphones enhances the overall safety measures within the home environment. This empowers users to take prompt actions, such as evacuating the premises, shutting off gas supply, or contacting emergency services, when necessary.

VIMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI, KANNUR
2023

AED334 MINIPROJECT REPORT

ALCOHOL SENSE ENGINE LOCK & GPS SYSTEM

Project Team

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VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI, KANNUR -2019

CERTIFICATE

This is to certify that the report entitled *"ALCOHOL SENSE ENGINE LOCK & GPS SYSTEM"* is a bonafide record of the AED334 Miniproject done by *AKHIL MA, AKSHAR MOHAN, KEVIN SAJI ,KIRAN KV* under our guidance towards the partial fulfillment of the requirements for the award of the Degree of Bachelor of technology in Electronics and Instrumentation Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

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Vice principal and Professor	Assistant Professor	Vice principal and Professor
Department of AEI	Department of AEI	Department of AEI
VJEC Chemperi	VJEC Chemperi	VJEC Chemperi

ABSTRACT

Drunk driving is a major cause of road accidents and poses a significant risk to public safety. The system incorporates an alcohol sensor, an engine control unit, and a GPS module to detect alcohol levels in the driver's breath, disable the vehicle's engine if alcohol is detected above a certain threshold, and provide real-time GPS tracking. The alcohol sensor utilizes advanced alcohol detection technology to accurately measure the alcohol content in the driver's breath. An Arduino microcontroller processes the sensor data and communicates with the engine control unit to determine whether the driver's alcohol level exceeds the permissible limit. If the alcohol level surpasses the set threshold, the engine control unit immobilizes the vehicle, preventing it from starting. In addition to alcohol sensing and engine lock functionality, the system is equipped with a GPS module to track the vehicle's location. This allows authorities or designated individuals to monitor the vehicle's movements in real-time, enhancing the effectiveness of enforcement and recovery efforts. The GPS data can be transmitted wirelessly to a central monitoring station or accessed through a mobile application for convenient tracking and management. The Arduino-based alcohol sensing engine lock and GPS system offer an affordable and customizable solution to combat drunk driving. Its integration of alcohol detection, engine immobilization, and GPS tracking ensures a comprehensive approach to deter and prevent intoxicated individuals from operating vehicles. The system holds promise for reducing the incidence of drunk driving accidents, promoting public safety, and facilitating effective law enforcement and vehicle recovery.

CHAPTER 7

CONCLUSION

The Arduino Uno-based Alcohol Sensing Engine Lock and GPS System using the MQ3 alcohol sensor is an effective solution for preventing drunk driving incidents and enhancing vehicle security. The integration of alcohol sensing, engine lock functionality, and GPS tracking ensures that only sober drivers can operate the vehicle, reducing the risk of accidents caused by intoxicated individuals. The project offers potential applications in the automotive industry, law enforcement, and vehicle security systems, with the aim of promoting road safety and saving lives.

VIMAL JYOTHI ENGINEERING COLLEGE
CHEMPERI, KANNUR
2023

AED334 MINIPROJECT REPORT
FACE RECOGNITION BASED ATTENDANCE SYSTEM USING ESP32

Project Team

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CHEMPERI, KANNUR -2019

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This is to certify that the report entitled *"FACE RECOGNITION BASED ATTENDANCE SYSTEM USING ESP32 "* is a bonafide record of the AED334 Miniproject done by *JUDE JOMON ,REVANTH PVK , ALAN SUNNY ,HIRANDEEP T,* under our guidance towards the partial fulfillment of the requirements for the award of the Degree of Bachelor of technology in Electronics and Instrumentation Engineering of the APJ Abdul Kalam Technological University through Vimal Jyothi Engineering College, Chemperi.

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ABSTRACT

The Face Recognition Based Attendance System using ESP32-CAM is a project that aims to automate the attendance process by utilizing the capabilities of facial recognition technology. Traditional attendance systems often involve manual recording or swiping of identification cards, which can be time-consuming and prone to errors. This project leverages the ESP32-CAM module, an embedded system with a built-in camera, to capture and process facial images for attendance tracking.

The system employs a two-step approach: face detection and face recognition. Initially, the ESP32-CAM captures images of individuals within its field of view. These images are then processed using computer vision algorithms to identify and extract facial features. Next, the extracted features are compared against a pre-trained face recognition model, which has been trained on a dataset containing known individuals. The model's output determines the identity of each individual in the captured images.

To achieve accurate face recognition, the project utilizes deep learning techniques. Convolutional Neural Networks (CNNs) are trained on a large dataset of facial images, enabling the model to learn discriminative features that distinguish one person from another. The training process involves the extraction of facial features, feature encoding, and model optimization to achieve higher accuracy in recognizing faces.Once the face recognition process is complete, the system records the attendance of each recognized individual in a database.

The attendance data can be accessed and analyzed later for various purposes, such as generating reports or monitoring attendance patterns.The ESP32-CAM module offers additional advantages in terms of its compact size, low power consumption, and connectivity options. It can connect to a local network or the internet, enabling real-time attendance tracking and remote monitoring.

CHAPTER 7

CONCLUSION

In conclusion, the Face Recognition Based Attendance System using ESP32-CAM demonstrates the potential of integrating face recognition technology with an IoT device for efficient attendance management. By leveraging the capabilities of the ESP32-CAM module and utilizing Python for various tasks such as face detection, image processing, database management, web development, and data analysis, the project achieves accurate and reliable attendance tracking. The system provides an intuitive user interface for administrators to register faces, monitor attendance, and generate reports. With the ability to capture and process facial images, it eliminates the need for traditional manual methods, offering a more streamlined and automated attendance management solution.

Overall, the Face Recognition Based Attendance System using ESP32-CAM showcases the practical application of IoT and face recognition technologies in attendance management. With its accurate and efficient recognition capabilities, it offers a reliable solution for organizations seeking to improve attendance tracking, eliminate manual processes, and enhance overall efficiency.

FATIGUE STUDIES ON STRUCTURAL STEEL USED FOR FLOATING OFFSHORE RENEWABLE ENERGY SUPPORT PLATFORM

A PROJECT REPORT

submitted by

AMRUTHA K

VML21CESC01

to

the APJ Abdul Kalam Technological University
in partial fulfillment of the requirements for the award of the Degree

of

Master of Technology

In

Structural Engineering and Construction Management

Department of Civil Engineering

Vimal Jyothi Engineering College
Chemperi

APRIL 2023

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

CERTIFICATE

This is to certify that the report entitled, **'FATIGUE STUDIES ON STRUCTURAL STEEL USED FOR FLOATING OFFSHORE RENEWABLE ENERGY SUPPORT PLATFORM'** submitted by **Ms. AMRUTHA K** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Technology in Structural Engineering and Construction Management is a bonafide record of the project work carried out by her under our guidance and supervision. This project report in any form has not been submitted to any other University or Institute for any purpose.

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Dr. J. Rajasankar

Head, Skill and Human Resource

Development Division

SS-01-SHRDD/2022-23

03-05-2023

PROJECT COMPLETION CERTIFICATE

This is to certify that *Ms. Amrutha K,* M. Tech (Structural Engineering and Construction Management), Roll No. VML21CESC01 student of *Vimal Jyothi Engineering College, Chemperi, Kannur, Kerala, India* has successfully completed her final semester project/ dissertation work in **CSIR-Structural Engineering Research Centre (CSIR-SERC), Chennai** during the period from **January 2023 to April 2023.** She worked under the guidance of **Dr. M. Saravanan, Principal Scientist, Fatigue and Fracture Laboratory (FFL), CSIR-SERC.** Her project title is *"Fatigue Studies on Structural Steel Used for Floating Offshore Renewable Energy Support Platform".*

(J. Rajasankar)

ABSTRACT

Energy demand has been increasing nowadays. Wind energy is considering as a remarkable renewable energy source to be implemented in power systems. Offshore wind turbine simultaneously helps the reduction of greenhouse gas emissions, an increase in energy security and diversity, creates jobs, and promotes sustainable development. Location of multiple wind turbine on large floating structure offshore offers the advantages of no land usage and probably a more reliable wind resource. Dueto the cyclic loading of wind and waves the fatigue damage occurs mainly in substructure steel and mooring chain used for anchorage in the floating offshore wind turbine. Hence, it is necessary to study the fatigue behavior of structural steel used in renewable offshore wind turbine and mooring chain used for anchorage.

In this study, Experimental fatigue life evaluation was conducted on an IS2062 grade E350 transverse butt weld joint specimens at different stress ranges used for semisubmersible floating offshore wind turbine support structure. Also, evaluated the mechanical properties and fatigue life evaluation of mooring chain of U3 grade at stress range used for anchoring the offshore wind turbine support structures. The fatigue life of the substructure steel and mooring chain of U3 grade steel specimen was predicted using experiments. From S-N curve data obtained from experiment on an IS2062 grade E350 transverse butt weld joint specimens at different stress ranges are compared with the S-N curve in IS 800: 2007 with detail category number 83. With decrease in applied stress range number of cycles to failure is observed to be more.

Key words: *Mooring chain, S-N curve, Offshore wind turbine, Fatigue, U3, IS 2062 E350, Cyclic loading.*

ii

CHAPTER 7

SUMMARY AND CONCLUSION

7.1 SUMMARY

Material properties of the offshore renewable energy support steel structural and U3 grade mooring chain used for anchorage were found out by tension test and fatigue test. S-N curve developed for transverse butt weld specimens was carried out at maximum stress value equal to 95%, 85%,80%, and 75% of the yield strength of the material. The no of cycles to failure for transverse butt weld specimens of IS2062 Grade E350 steel with different stress ranges find out. Fourteen specimens were taken into consideration for evaluation of the fatigue life of transverse butt weld specimens at different stress ranges and also five U3 grade mooring chain specimens were fabricated for tension test and fatigue test. Hence, from S-N curve data obtained from the experiment is compared with the S-N curve given in IS 800:2007 for constructional detail number 12 with detail category number 83. Similarly, S-N curve for the U3 grade mooring chain used for anchorage purposes is also carried out based on offshore standard DNV-OS-E301.

7.2 CONCLUSIONS

- Different materials used for support structure and mooring in floating offshore renewable energy wind turbines are identified and the availability of material find out.

- With decrease in applied stress range, number of cycles to failure is observed to be more. From S-N curve data obtained from experiment is compared with the S-N curve given in IS 800:2007 for constructional detail number 12 with detail category number 83. It is observed that all the specimen fails to satisfy the requirement of S-N curve given in IS 800:2007 due to defect in welding.

- Mechanical properties of mooring chain used for anchoring the offshore wind turbine support structure are estimated and compared with the manufacturer data.

- Mooring chain of U3 Grade used for anchoring the offshore wind turbine support structures evaluated and number of cycles to cause fatigue damage also find out with experiments. And from S-N cures data obtained from the experiment is compared with the S-N curve given in offshore standard DNV-OS-E301. It is observed that all the specimens satisfied the condition of offshore standards.

74

DEPARTMENT OF CIVIL ENGINEERING

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

CERTIFICATE

This is to certify that the Report entitled "**PARAMETRIC STUDY OF RIBBED SLAB WITH CLOSED RIBS**" is a bonafide record of project done by **Mr. IRSHAD ASHRAF C P** , under our supervision andguidance, in partial fulfilment of the requirements for the award of Degree of Master of Technologyin Civil Engineering of the **APJ Abdul Kalam Technological University (KTU)**. This project report in any form have not been submitted to any other university or institute for any purpose.

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Department of Civil Engineering   Department of Civil Engineering

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CERTIFICATE

This is to certify that the report entitled, **'FATIGUE STUDIES ON STRUCTURAL STEEL USED FOR FLOATING OFFSHORE RENEWABLE ENERGY SUPPORT PLATFORM'** submitted by **Ms. AMRUTHA K** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Technology in Structural Engineering and Construction Management is a bonafide record of the project work carried out by her under our guidance and supervision. This project report in any form has not been submitted to any other University or Institute for any purpose.

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CERTIFICATE

This is to certify that the Report entitled "**STRENGTHENING OF SEVERELY DAMAGED RCC COLUMN THROUGH CAST IN SITU VS PREFABRICATED SOLUTION METHOD**" is a bonafide record of project done by **Mr. SANJAY A**, under our supervision and guidance, in partial fulfilment of the requirements for the award of Degree of Master of Technology in Civil Engineering of the **APJ Abdul Kalam Technological University (KTU)**. This project report in any form have not been submitted to any other university or institute for any purpose.

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VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

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This is to certify that the report entitled, 'EVALUATION OF J-INTEGRAL FOR WELDED STRAIGHT PIPES WITH CIRCUMFERENTIAL THROUGH-WALL NOTCH UNDER FLEXURAL LOADING' submitted by **Ms. RAJULA K P** to the APJ Abdul Kalam Technological University in partial fulfillment of the requirements for the award of the Degree of Master of Technology in Structural Engineering and Construction Management is a bonafide record of the project work carried out by her under our guidance and supervision. This project report in any form has not been submitted to any other University or Institute for any purpose.

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CERTIFICATE

This is to certify that the Report entitled "**ANALYSIS OF COUPLED COMPOSITE COLUMN**" is a bonafide record of project done by **Mrs SAHALA SHERIN**, under our supervision and guidance, in partial fulfilment of the requirements for the award of Degree of Master of Technology in Civil Engineering of the **APJ Abdul Kalam Technological University (KTU)**. This project report in any form have not been submitted to any other university or institute for any purpose.

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DEPARTMENT OF CIVIL ENGINEERING
VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

CERTIFICATE

This is to certify that the Report entitled **"STRUCTURAL PERFORMANCE ENHANCEMENT OF BEAM THROUGH COLUMN CONNECTION"** is a bonafide record of project done by **Ms. SNIGDHA P.**, under our supervision and guidance, in partial fulfilment of the requirements for the award of Degree of Master of Technology in Civil Engineering of the **APJ Abdul Kalam Technological University (KTU)**. This project report in any form have not been submitted to any other university or institute for any purpose.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Artificial Intelligence and Data Science

Industrial Visit Report
S6 ADS (2020-'24)

10/03/2023 – 12/03/2023

Prepared by,

Thripthi P Balakrishnan,AP,ADS
Shinu M M, AP,AEI

Student Coordinators:
Thaha Mohammed Yaseen
Vaisakh P

March 2023

Preface

       Industrial Visit is not just about exploring new places, but it's also an opportunity to gain knowledge, broaden perspectives, and create memories that last a lifetime. This travelogue documents the experiences of a group of Sixth Semester Artificial Intelligence and Data Science students who embarked on an industrial training program organized by the APJ Abdul Kalam Technological University. The program took them on an exciting journey to Murudeshwara, Dandeli, and Gokarna - some of the most beautiful and culturally rich destinations in India.

       The industrial training program was designed to provide practical exposure to the theoretical concepts learned in the classroom and give students an opportunity to interact with professionals in their respective fields. Throughout the journey, the students visited various industries, learned about new technologies, and explored the ways in which engineering students are transforming different sectors.

From the magnificent Murudeshwara temple to the serene backwaters of Dandeli and the pristine beaches of Gokarna, this travelogue captures the essence of each destination and the experiences it offered the students.Also the knowledge which they gained through industrial visit.

Acknowledgement

It gives us immense pleasure to acknowledge the invaluable contributions of various individuals and institutions in the creation of this travelogue documenting the industrial visit organized Sixth Semester Artificialm Intellegence and Data Science students in **Vimal Jyoti Engineering College, Kannur** under **APJ Abdul Kalam Technological University.**

First and foremost, I express my sincere gratitude to beloved Principal, **Dr.Benny Joseph**, HOD, **Dr.Manoj.V.Thomas** and faculty advisors, **Ms.Thripthi P Balakrishnan** & **Ms.Namitha P** for permitting us for this industrial visit. Also, special thanks to the accompanying faculty, **Mr.Shinu M M** (Assistant Professor, AEI), **Ms.Thripthi P Balakrishnan** (Assistant Professor, ADS) & parent representative, **Mrs.Minimol.O.C**. Their commitment to the students' learning was unwavering, and they ensured that the program was conducted smoothly.

We would like to extend our heartfelt thanks to all the professionals and industry experts at **Zephyr Technologies & Solutions, Mangalore** and **Blueline Computers, Mangalore** who took the time to interact with the students and share their knowledge and expertise. Their insights, experiences, and practical examples have enriched the students' understanding of the real-world application of the concepts they learned in the classroom.

Special thanks to the students who actively participated in the program, showing enthusiasm, curiosity, and a willingness to learn. Their experiences and observations have been captured in this travelogue, and their efforts have made it a valuable resource for future generations of students.

Lastly, we would like to acknowledge the efforts of all those who have contributed to the creation of this travelogue, including the **Vimal Jyoti Publications**.

Index

Sl no	Contents	Page No.
1	Destination Details	5
2	Supporting Documents	6
2	Industrial Visit Report	24
	a) Introduction	25
	b) List of students	26
	c) Accompanying faculty and parent details:	26
	d) Student coordinators details	27
	e) Details of the company	27
	f) Schedule of visit	27

Destination details

Day	Destination
10/03/2023	Zephyr Technologies & Solutions, Mangalore
	Blueline Computers, Mangalore
	Murudeswaram Temple
11/03/2023	Dandeli
12/03/2023	Gokarna

PART A
(Supporting Documents)

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPT: OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Dates of Visit: From 09/03/2023 To 12/03/2023

Class Details:

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
ARTIFICIAL INTELLIGENCE (ADS)	3RD YEAR / S6	32	27
Reason for students who are not visiting :		PERSONAL REASONS	

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
Zephyr Technologies & Solution's Pvt Ltd	+91 7994082021	+91 8242410227 +91 8111843307
Industry address for communication:		Mangalore, 5th floor, Oberle Towers, Balmatta, Mangaluru, Karnataka 575001

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
Blueline Computers	+91 9986259847	+91 9986259847
Industry address for communication:		3rd Floor Brahma Samaja building Near Navabharath Circle, Mangaluru, Karnataka 575003

IV Report S6 ADS

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Accompanying staff	Designation	Contact number
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Parent Details:

Accompanying parent	Designation	Contact number
Asswi Mol	W/o Ann Riya	+91 9961487489

Transport Details:

Mode of Transport	Name of the Travel and Address
BUS	ONLINE HOLIDAYS Sreekandapuram, Kannur

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification & Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter		
2.	Students Name List Signed		
3.	Class Cancellation Circular		
4.	Schedule of visit Signed by Accompanying Staff, PC/FA,HOD		
5.	Hostel Permission form		
6.	Permit copy or Railway Reservation Details		
7.	Parent's declaration form if it is Industrial Tour		
8.	Previous Industrial Visit Report submission		

Signature of Class Representatives / IV Co-ordinators with name: VAISHAK P

THAHA MUHAMMED YASEEN

Tutor	HOD	Approved/ Not Approved
	3/5/23	Principal

VIMAL JYOTHI ENGINEERING COLLEGE CHEMPERI

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

STUDENT LIST

COURSE AND DEPARTMENT : ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

PURPOSE INDUSTRIAL VISIT

SNO	PRN NO	NAME	SIGN
1	VML20AD001	AARSHA ANIL	
2	VML20AD002	ALANA ANCE JOHN	
3	VML20AD005	ANN RIYA JAISON	
4	VML20AD007	CAMAY JILLS	
5	VML20AD008	CHANDHANA RAJEEVAN	
6	VML20AD009	CHRISTEENA J ROSE	
7	VML20AD010	DENI THOMAS	
8	VML20AD011	DEVA NAIR	
9	VML20AD012	HAMNA RAFEEQ	
10	VML20AD013	JASHLIN S SIMON	
11	VML20AD0014	KIRAN PRASAD P P	
12	VML20AD015	MARWA ABDUL RAZAK	
13	VML20AD016	MAZIN MURSHID	
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15	VML20AD018	NANDHAJ VIJAYAN	
16	VML20AD021	ROSE BENNY	
17	VML20AD022	SHARON RAJISH	
18	VML20AD023	SHYAMITH MANNAMBETH	
19	VML20AD024	SNEHAL VINOD T	
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21	VML20AD026	STEPHIN LIJI	
22	VML20AD027	THAHA MUHAMMED YASEEN	
23	VML20AD028	THALHAH ANAS	
24	VML20AD029	VAIBHAV RAJESH	
25	VML20AD030	VAISHAKH P	
26	VML20AD031	VISHNUPRIYA N	
27	LVML20AD032	HARSHA M	

FACULTIES

MS.THRIPTHI P BALAKRISHNAN

MS.NAMITHA P
(Todo)

01/05/23
MR.SHINU.M.M

blue line
COMPUTERS
Since 2006

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- SEO Optimization - Social Media Marketing
- Web Design & Development - Domian and Hosting Registrations

PERMISSION GRANT LETTER FOR INDUSTRIAL VISIT TOUR

To,

Vimal Jyothi Engineering College
Chemperi, Kerala

Reg : Permission Grant Letter for Industrial Visit Tour at Blueline Computers Mangalore

Dear Concerned,

As per your request to conduct an Industrial Visit in our Organisation, we hereby confirm that 27 students accompanied by 3 faculties will be given an opportunity to interact with our Developers and take part in the Industrial Visit Tour which is likely to be scheduled on 10th March, 2023. All students participating in this Industrial Visit Tour will be granted a Certificate from our Organisation along with a session on "How to Build a Career as a Mobile App Developer".

We look forward to meeting you all.

Many Thanks,

Shaan SK
Director, Blueline Computers
+91-91084 30862
Email:info@bluelinecomputers.co.in

Office Add:
Blue Line Computers
No. 304, 3rd Floor
Brahma Samaj Complex
Nevabharath Circle, Kodialbail
Mangalore - 575003

www.bluelinecomputers.com
androiddeveloperemangalore.com
info@bluelinecomputers.co.in

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE
HOSTEL PERMISSION FORM

Date: 07/03/2023

Course & Department: ~~CIVIL ENGINEERING~~ AI & DS

Date of permission: 10/03/2023-12/03/2023

Purpose INDUSTRIAL VISIT

Start time: 10:00 AM   Return time: 10:00 AM

Hostel: Girls

SLNo	Roll No.	Name	Signature
1.	VML20AD002	ALANA ANCE JOHN	
2.	VML20AD009	CHRISTEENA J ROSE	
3.	VML20AD010	DENI THOMAS	
4.	VML20AD013	JASHLIN S SIMON	
5.	VML20AD015	MARWA ABDUL RAZAK	
6.	VML20AD021	ROSE BENNY	
7.	VML20AD031	VISHNUPRIYA N	

Permitted / not permitted

Tutor

HOD 9/3/23

HOSTEL WARDEN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department: ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

Purpose: Industrial Visit/ Tour

1. Visiting Place: Gokarna - Dandeli

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying
1	ONLINE HOLIDAYS MARJAN PV 8138825500	DEW DROPS JUNGLE RESORT	1

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance):   6800/-

Total amount collected from the student's: 1,83,600 /-

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE

HOSTEL PERMISSION FORM

Al a DS

Date: 09/03/2023

Course & Department: CIVIL ENGINEERING

Date of permission: 09/03/2023-12/03/2023

Purpose INDUSTRIAL VISIT

Start time: 10:00 AM   Return time: 10:00 PM

Hostel: Boys

Sl.No	PRN NUMBER	Name	Signature
1.	VML20AD016	MAZIN MURSHID	
2.	VML20AD022	SHARON RAJISH	
3.	VML20AD027	THALHAH ANAS	

Permitted / not permitted

Fr. Bbso

Tutor   HOD 8/3/23   HOSTEL WARDEN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE
CLASS CANCELLATION CIRULAR

Course & Department: DEPARTMENT OF ARTIFICIAL INTELLIGENCE
Date of class cancellation: 16/03/2023
Purpose Industrial Visit

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	09:00 AM – 10:00 AM	PROGRAM ELECTIVE	Ms. NAMITHA P	
2.	10:00 AM – 11:00 AM	ROBOTICS AND INTELLIGENT SYSTEMS	Mr. JOSY JAMES	
3.	11:10 AM – 12:10 PM	INDUSTRIAL ECONOMICS AND FOREIGN TRADE	Mr. ARUNLAL M P	
4.	01:00 PM – 02:00 PM	ALGORITHM ANALYSIS AND DESIGN	Ms. THRIPTHI P BALAKRISHNAN	
5.	02:00 PM – 03:00 PM	ROBOTICS AND INTELLIGENT SYSTEMS	Mr. JOSY JAMES	
6.	03:10 PM – 04:10 PM	PROGRAM ELECTIVE	Ms. NAMITHA P	

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place: Vimal Jyothi Engineering College
Reaching Place: Dandeli Gokarna
Approximate Traveling Distance (in KM): 1000 KM

Departure time   : 3 : 00 AM (10-03-23)
Reaching time at company   : 11: 00 AM 10/03/23
Lunch time   : 01: 00 PM 10/03/23
Departure time from company   : 03: 00 PM 10/03/23
Arrival time at college   : 07 : 00 PM 12/03/23
Amount collected from individual student (including Conveyance/ Boarding): 6800/-
Total amount collected from the student's: 1,83,600/-
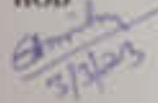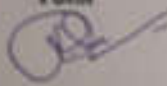
Accomp. Staff   Tutor   HOD   Principal

Thijothi P Balakrian
Shinu mm

From,

Minimole OC
Mother of Ann Riya Jaison
Cherupuzha, Kannur
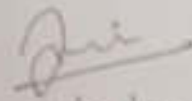
Date: 03/03/22
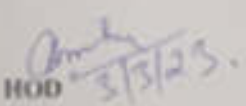
To
The principal
Vimal Jyothi Engineering College

Subject: Willingness to accompany students

Respected Sir,

Myself Minimole OC mother of Ann Riya Jaison is willing to accompany students of S6-ADS for their industrial visit from 10ᵗʰ March 2023 (3:00 AM) to 12ᵗʰ March 2023 (7:00pm) starting from chemberi to Manglore, Dandeli, Gokarna.

03/03/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
INDUSTRY INSTITUTE PARTNERSHIP CELL
INDUSTRIAL VISIT / TOUR REPORT

Date:

Course & Department	ARTIFICIAL INTELLIGENCE AND DATA SCIENCE
Date(s) of Visit	16/03/2023
No. of Students visited	27
Accompanying Staff Members	Thripthi P. Balakrishnan Shinu MM
Name & Address of the Company	Zephyr Technologies & Solution (Mangloor) Blue Line Computers (Manglore)
Feedback & Authorized Signatory from the Company	
Technical details about the Company	
Comments	
Accomp. Staff	Tutor HOD 3/3/23.

TRANSPORT DEPARTMENT, THALIPARAMBA SRTO

Kerala

Form P.Co.

[See Rule 1AAPG]

PERMIT IN RESPECT OF CONTRACT CARRIAGE PERMIT (CONTRACT
CARRIAGE PERMIT)

PART-A

The Date of replacement of Vehicle under model condition of the Permit

1. Permit No — KL2022-CC-4851H
2. Name Of The Permit Holder — SULAIMAN K P
3. Father's/Husband's Name (in case of Individual) — ABDULLA K
4. Permanent Address — KOLIPRATTIL PUTHIYAPURAYIL HOUSE
KOLIPPURAM,NR ANGANWADY
CHENGALAYI(PO),THALIPARAMBA, Kerala Kannur-
670631

5.
   (i) Registration Mark of the Vehicle — KL13AA8180
   (ii) Make/Model — ASHOK LEYLAND LTD/ALPSV VIKING
   (iii) Date of Registration — 02-Sep-2013
   (iv) Chassis Number — MB1PBEYC4DEWL2568
   (v) Engine Number — DWEZ407714
   (vi) Class of Vehicle — Bus
   (vii) No of Passengers to be carried(including driver) — 49
   (viii) No of Passengers standing — 0
   (ix) No of Passengers sleeper — 0
   (x) Fuel Type — DIESEL

(xi) Name of Financier,if any,with whom the Vehicle   is SHRIRAM TRANSPORT FINANCE CO LTD
under Hire Purchase aggrement
6. Route/Area for which permit is valid

Region Covered :

ALL FIT ROADS IN KERALA STATE EXCEPT THOSE
PROHIBITED BY ANY LAW IN FORCE

7. Validity of the Permit :   From: 04-Nov-2022   To: 03-Nov-2027

8. Date of Replacement of Vehicle
9. Nature of Goods to be Carried
10. Parking Place
11. Purpose Of Journey
12. Rate of fare approved   Approved by STA/RTA

14. Conditions of Permit   List Attached

Date: 04-Nov-2022

Secretary :
State/Regional Transport Authority,
THALIPARAMBA SRTO,Kerala

The New India Assurance Co. Ltd.
(Government of India Undertaking)

Consolidated Stamp Duty Paid

[B]

Policy Schedule cum Certificate of Insurance
Commercial Vehicle Package Policy

GOVERNMENT OF KERALA
Certificate of Registration(Form 23) (KL) (T)

Regn. No KL13AA8100	**Date of Regn** 02-Sep-2013	**Regn.Validity** 01-Sep-2028

Chassis No
MB1PBEYC4DEWL2568

Engine No
DWEZ407714

Owner Name
SULAIMAN K P

Son/Daughter/Wife of
ABDULLA K

Tax upto
31-Dec-2022

Fuel Used
DIESEL

Emission Norms
Not Available

Date of Effect
02-Nov-2022

Address
KOUPPATTIL PUTHIYAPURAYIL HOUSE,
KOUPPURAM,NR ANGANAVADY,
CHENGALAYI(PO),THALIPARAMBA, KANNUR-
KERALA-670631

Owner Sr.No (3)

7613461

HPA/HPT/NOC/TO

(KL) (T)

Regn.No
KL13AA8100

Month & Yr.of Mfg
05/2013

Wheel Base(mm)
5334

Cubic Capacity
5974.00

No of Cylinders
6

ULW/GVW(kgs)
10800/16200

Vehicle Class
BUS(CONTRACT CARRIAGE PERMIT)

Maker's Name
ASHOK LEYLAND LTD

Model name
ALPSV VIKING

Colour
WHITE

Body type
SALOON

Seating(in all)/Standing/Sleeping Capacity
49 / 0 / 0

Axle Type	No/Size/Weight(kgs)
Front	2-10.0020-16 PR / 6000
Rear	4-10.0020-16 PR / 10200
Other	/ 0
Tandem	/ 0

Financier Name
SHRIRAM TRANSPORT FINANCE CO LTD

Registering Authority
THALIPARAMBA SRTO

Form 23A

THE NEW INDIA ASSURANCE CO. LTD
(Government of India Undertaking)

[B]

Consolidated Stamp Duty Paid

POLICY SCHEDULE CUM CERTIFICATE OF INSURANCE
Commercial Vehicle Package Policy

UIN Number - [illegible]

Policy Number [illegible]

POLICY ISSUING OFFICE: KOTTAKKAL BRANCH [illegible]

BUSINESS CHANNEL [illegible]

CLAIM CONTACT: KOTTAKKAL BRANCH [illegible] OR CUSTOMER CARE NUMBER [illegible]

INSURED DETAILS

Insured's Name	[illegible]	Customer ID	[illegible]
Insured's Address	[illegible] KANNUR [illegible] KERALA [illegible]	Contact Number	[illegible]
		Email	
		GSTIN	NA

POLICY DETAILS

Period of cover	[illegible] PM to [illegible] 11:59:59 PM	Receipt Number	[illegible]
Previous Insurer	THE NEW INDIA ASSURANCE COMPANY LTD	Previous Policy Number	[illegible]

VEHICLE DETAILS

Geographical Area / Zone	INDIA	Year of manufacture	2013
Type of Commercial Vehicles	2 - Passenger Carrying	Sub Type	[illegible]
Name of the Financier	SHRIRAM TRANSPORT FINANCE CO LTD	Chassis no./Engine no.	[illegible]
Type of fuel	Diesel	Cubic capacity (cc)	[illegible]
Type of body	Closed	Gross Vehicle Weight (GVW)	0
Make/Model	ASHOK LEYLAND/VIKING [illegible]	Registration no.	[illegible]
Seating capacity including Driver	[illegible]	Variant	VIKING [illegible]
Automobile Association membership		Colour	GREEN
Cover Note No./Cover Note Issue Date	/	Name of registration authority	Kannur
FASTag ID			

INSURED DECLARED VALUE (Rs)

Vehicle	Trailer	Non-Elec Acc	Electrical Acc	Bi fuel kit	Total Value
[illegible]	0	0	0	0	[illegible]

SCHEDULE OF PREMIUM

Own Damage		Liability	
Basic OD Premium (+)Loading for inclusion of IMT 23	[illegible] [illegible]	Basic TP Premium (+)Add Legal liability to passengers (+)LL to paid driver conductor cleaner employed for [illegible]	[illegible] [illegible] [illegible]

Page 1 of 3

Signature Not Verified

Principal.VJEC

TRANSPORT DEPARTMENT,THALIPARAMBA SRTO

Kerala

Form P.Co.
[See Rule 144(b)]

PERMIT IN RESPECT OF CONTRACT CARRIAGE PERMIT (CONTRACT CARRIAGE PERMIT)

PART-A

The Date of replacement of Vehicle under model condition of the Permit

1. Permit No : **KL2022-CC-4851H**
2. Name Of The Permit Holder : **SULAIMAN K P**
3. Father's/Husband's Name (In case of Individual) : **ABDULLA K**
4. Permanent Address : **KOUPPATTIL PUTHIYAPURAYIL HOUSE KOUPPURAM,NR ANGANAVADY CHENGALAYI(PO),THALIPARAMBA, Kerala Kannur-670631**

5.
  (i) Registration Mark of the Vehicle : **KL13AA8100**
  (ii) Make/Model : **ASHOK LEYLAND LTD/ALPSV VIKING**
  (iii) Date of Registration : **02-Sep-2013**
  (iv) Chassis Number : **MB1PBEYC4DEWL2568**
  (v) Engine Number : **DWEZ407714**
  (vi) Class of Vehicle : **Bus**
  (vii) No of Passengers to be carried(including driver) : **49**
  (viii) No of Passengers standing : **0**
  (ix) No of Passengers sleeper : **0**
  (x) Fuel Type : **DIESEL**

  (xi) Name of Financier,if any,with whom the Vehicle is **SHRIRAM TRANSPORT FINANCE CO LTD** under Hire Purchase aggrement

6. Route/Area for which permit is valid:

Region Covered : **ALL FIT ROADS IN KERALA STATE EXCEPT THOSE PROHIBITED BY ANY LAW IN FORCE**

7. Validity of the Permit : **From: 04-Nov-2022   To: 03-Nov-2027**

8. Date of Replacement of Vehicle
9. Nature of Goods to be Carried
10. Parking Place
11. Purpose Of Journey
12. Rate of fare approved

Approved by STA/RTA

List Attached

14. Conditions of Permit

Date: 04-Nov-2022

Secretary.
State/Regional Transport Authority,
THALIPARAMBA SRTO,Kerala

PART B
(Industrial Visit Report)

Introduction

Industrial visits are an integral part of Engineering and acknowledgment of technology upgrades and is part of the curriculum. The purpose of industrial visits for students is to provide technical knowledge about the technological development in the industry and to understand the gap between theoretical and practical knowledge that could be passed in the future. This experience can help students provide information regarding various industries' functioning and associated problems and limitations.

The visit was organized with the prior permission and guidance of our **Principal, Dr.Benny Joseph, HOD, Dr. Manoj V Thomas,** and **Faculty Advisors, Ms.Thripthi P Balakrishnan & Ms.Namitha P.** The industrial visit of S6 ADS (2020-24 Batch) was scheduled from 10th March to 12th March 2023. The 27 students were accompanied by **Mr.Shinu M M** (Assistant Professor, AEI), **Ms.Thripthi P Balakrishnan** (Assistant Professor, ADS) along with a parent representative, **Mrs.Minimol O C** (Mother of Ann Riya Jaison(S6 ADS student)). The three destinations during the industrial visit were Murdeshwar, Dandeli & Gokharanam.

On 08/03/2023, an online meeting was conducted in which all students(who are going for IV) along with parents, the Principal, HOD, Faculty Advisors, and the accompanying staff. The schedule was explained and the concerns of parents were addressed. The travel destination photos, Contact numbers of accompanying staff and parents, Bus details, schedule, etc were shared with the parents.

Before the start of the journey, a meeting with the students who are going for the industrial visit along with the accompanying faculty was conducted on 09/03.2023 at 11.30 am in the AEI Department Library and general instructions which all students must follow were given such as to avoid allergic and unhygienic food, avoid risky water games, bring personal medicines (if required), don't use psychotropic substances, avoid costly jewelry items, etc. As the plan was to start by 4.00 AM on 10/03/2023 from the college, it was instructed to reach the college by 3.45 AM. Also informed that accompanying staff has the right to cancel the trip if any violation of the instructions given.

On receiving the permission letters from the two industries **Zephyr Technologies, Mangalore,** and **Blueline computers, Mangalore,** we started our journey on 10/03/2023.

List of students:

Sl No	PRN No	Name
1	VML20AD001	Aarsha Anil
2	VML20AD002	Alana Ance John
3	VML20AD005	Ann Riya Jaison
4	VML20AD007	Camay Jills
5	VML20AD008	Chandhana Rajeevan
6	VML20AD009	Christeena J Rose
7	VML20AD010	Deni Thomas
8	VML20AD011	Deva Nair
9	VML20AD012	Hamna Rafeeq
10	VML20AD013	Jashlin S Simon
11	VML20AD0014	Kiran Prasad
12	VML20AD015	Marwa Abdul Razak
13	VML20AD016	Mazin Murshid
14	VML20AD017	Muhammed Zain Rafeeque
15	VML20AD018	Nandhaj Vijayan
16	VML20AD021	Rose Benny
17	VML20AD022	Sharon Rajish
18	VML20AD023	Shyamith Mannambeth
19	VML20AD024	Snehal Vinod T
20	VML20AD025	Sourav C
21	VML20AD026	Stephin Liji
22	VML20AD027	Thaha Muhammed Yaseen
23	VML20AD028	Thalhah Anas
24	VML20AD029	Vaibhav Rajesh
25	VML20AD030	Vaishakh P
26	VML20AD031	Vishnupriya N
27	LVML20AD032	Harsha M

Accompanying faculty and parent details:

Accompanying Staff	Mr.Shinu M M, (AP,AEI)	9496986217
	Ms.Thripthi P Balakrishnan(AP,ADS)	9496495233
Parent Representative	Mrs..Minimol	6282581612

Student coordinators details:

1	Vaishakh P	7994665201
2	Thaha Muhammed Yaseen	9562780270

Details of the company:

Slno	Company Name	Address and contact
1	Zephyr Technologies & Solutions	Zephyr Technologies & Solutions 5th Floor, Oberle Towers, Balmatta Mangaluru – 575001 mail@zephyrtechnologies.com
2	Blueline Computers	Blueline Computers 3rd Floor,Brahma Samaja Building Near Navabharath Circle Mangaluru - 575003 mail@bluelinecomputers.co.in

Schedule of visit

Starting Place: Vimal Jyothi Engineering College, Chemperi

Destination: Murudeswaram, Dandeli, and Gokarnam.

Day 1 (10/03/2023)

The journey started at 4.15 AM from college on bus **Online Holidays(KL 13 AA 8100)** with 20 students, accompanying faculty, and a parent representative. 2 students boarded from Thaliparamba and 5 students from Payyanur.We reached Mangalore and had breakfast at 8.30 AM. Then visited Someshwara beach located in Ullal in the city of Mangalore, Someshwara Beach is a quaint hidden gem of the city. Boasting shimmering golden sands, a long and beautiful coastline, the beach is also peppered with rock boulders called Rudra Shile, making it unique from its other counterparts in the city.

After that, we visited the first industry, **Blueline Computers, Mangaluru** by 11.00 AM. **Blueline Computers** is a web designing as well as mobile application development consultancy. They provided us with a session on mobile application development using Flutter. Also gave an introduction to the services provided by them.

We reached the second industry **Zephyr Technologies & Solutions, Mangaluru** by 12.00 PM**. Zephyr Technologies & Solutions** is a software consultancy that provides services such as web designing, application development, graphic designing, branding, etc. They gave us an introduction to web development, application development, how they started the company, and the job opportunities as Data Scientists.

After that, we had lunch at Manglarur by 1.30 AM. We resumed the journey by 2.30 PM to the next destination, Murudeswaram. We reached Murudeswaram by 4.30 PM. Murudeshwar is home to the second tallest statue of Lord Shiva (123 ft) in the world. With the shimmering Arabian Sea on three sides and the magnificent Western Ghats imposing their presence on this town. The sunset view at Murudeswar was amazing. We spend there at the temple and nearby beach till 8.00 PM.

By 8.00 PM, we checked into a lodge for fresh up. By 9.30 PM we had dinner and returned back to the lodge.

Day 2 (11/03/2023)

By 2.00 AM we started our journey to Dandeli. And checked in at Jungle Bell Resort, Dandeli by 7.00 AM. After fresh up, we had breakfast at 9.00 AM.

Then we went for river activities in Dandeli which is an adventure destination in India. It offered us a lot of adventure activities like river rafting in Kali river, kayaking, boating, and natural Jacuzzi. Even though it was adventurous, the security measures provided them were notable. It was actually a very interesting destination.

And by half past twelve we return back to the resort and went to the swimming pool located inside our resort after an hour we had our lunch. After having our lunch we went to our room to fresh up. Then we went for trekking in the forest which is near a park, Jungle trekking is an adventurous journey along the thick Dandeli forests where visitors can explore nature, wildlife & birds. This is really an adventurous activity in Dandeli Forest, usually undertaken by young tourists. Trekking is one of the top things to do in Dandeli. We also went for go-karting located near our resort after completing the trekking.

After completing all activities we returned back to our resort by half past six. By 7pm the resort organized a rain dance inside the resort for half an hour.

Then we all went to fresh up and came back to the canteen by one hour to have our dinner. After dinner, we played some indoor games like carroms, archery, etc. Then by 10pm, the resort management set a camp fire for us inside the resort. We played some games and the session went until 12pm. Then we went to the bed as we have to leave the resort at 6am to reach our next destiny which was Om Beach.

Day 3 (12/03/2023)

We had a light breakfast from the resort and then checked out from Jungle Bell Resort, Dandeli by 7.00 AM and started the journey to Gokarna. By reaching Gokarna at 9.30 AM we had breakfast at a restaurant located in between Om beach and Mirjan fort. Then after having breakfast, we started traveling to Om beach which was 8 km far from the restaurant. After 30 minutes of traveling we reached our destination, Om beach. Om Beach is a major tourist attraction in the coastal city of Gokarna, located in the North Canara district. One of the most acclaimed beaches in the country, Om Beach takes the shape of an 'Om', a Hindu spiritual symbol. In the shape of two crescents joined together to form an Om, the beach offers a breathtaking view of the sunset. The long stretch of white sandy beach adjoining the rocky terrain appeals to travelers from around the world. We spent 2 hours there by taking photos and admiring the beauty of the beach.

By 1 pm we came back to the same restaurant from where we had breakfast to eat lunch we had chicken biriyani and vegetable biriyani for lunch. After having lunch we started traveling to Mirjan Fort located 15km from the restaurant and we reached there by 3 pm. Located on the banks of the Aganashini River, a tributary of the Sharavathi River, the Mirjan Fort is known for its architectural elegance and is one of the m u st include places in Gokarna Tour Packages.

Built over an area of about 10 acres, the fort is approached through a series of wide steps that lead to the interiors of the fort. It is a double-walled fort built using laterite stones and has high walls and bastions with high turrets. The fort has four entrances and is surrounded by a   moat with interconnected wells.

During travel by bus also we all enjoyed ourselves very well by dancing and singing. On the way back we sang songs and dedicated them to everyone on the bus. It was very funny. By 5 pm we head back to the college which was a long journey of 8 hours. We reached Uppala by 10 and we had our dinner at an Arabian Mexico Restaurant. At Payyannur, 2 students and a parent representative were dropped and at Thaliparambu 5 students were dropped. Bus arrived at the college by 1.30 AM.

We are very thankful for our beloved Principal, **Dr.Benny Joseph**, HOD, **Dr.Manoj.V.Thomas** and faculty advisors, **Ms.Thripthi P Balakrishnan** & **Ms.Namitha P** for permitting us for this industrial visit. Also, special thanks to the accompanying faculty, **Mr.Shinu M M** (Assistant Professor, AEI), **Ms.Thripthi P Balakrishnan** (Assistant Professor, ADS) & parent representative, **Mrs.Minimol.O.C**. These three days will be one of the golden memories in our life at VJEC.

----------------------Thankyou-----------------

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE ◆ ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

NATIONAL BOARD
of ACCREDITATION
NBA: B.Tech CE,CSE, EEE & ME

NAAC ACCREDITED

Date:01.06.2022

To

Fresh N Nice foods.

Sir,

Sub: Request for carrying out field work by 6th semester Applied Electronics and Instrumentation Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following 6th semester Applied Electronics and Instrumentation Engineering students of this college have to undertake field work associated with their branch of study. A batch consisting of the following students of the 6th semester have expressed its desire to do the field work.

1. VML19AE001 - ADWAITH PRADEEP

2. VML19AE003- ALJO JOHN

3. VML19AE004- ANAMIKA C

4. VML19AE005- ANJO MATHEW

5. VML19AE006- ANUSREE K

6. VML19AE007- ASWIN J PRASAD

7. VML19AE008- ASWIN THOMAS

8. VML19AE009- DEVA PRAKASH

9 .VML19AE010- JIBIN P B

10. VML19AE012 -JOYEL JOSEPH

11. VML19AE013- JUSTIN GEORGE

12. VML19AE014- KASHYAP K

13. VML19AE016- MOHAMMED RAHEEL

14. VML19AE017 -NASHLA KP

15. VML19AE018- PAULSON EDWIN KUNNATH PARAMBIL

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE • ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

NBA: B.Tech CE,CSE, EEE & ME

NAAC ACCREDITED

16. VML19AE019- PRABIN BABY

17. VML19AE020- SALVIN JOSE K

18. VML19AE021- SREEHARI T V

19. VML19AE022- VEDA K C

20. LVML19AE023- DILEEP C

We will be highly indebted to you if you could give permission to carry out such works. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

S6 AEI - REPORT OF INDUSTRIAL VISIT

June 09 2022 to June 12 2022

(2019-2023 AEI BATCH)

Students of S6 AEI undertook an Industrial Visit. Altogether there were 14 students and 1 Faculty member in the group. The Industrial visit was scheduled from June 09 2022 to June 12 2022. The visit was arranged to Fresh N Nice foods, Goa. The detailed report of the visit is mentioned below.

DAY 01- 09/06/2022 (Thursday)

The 4 day Industrial Visit commenced upon departure at 07:00 pm. Our destination was Goa. After a brief prayer we started our journey towards destination.

DAY 02- 10/06/2022 (Friday)

We all arrived there at 8.30 am. After fresh up and Breakfast We visited Fresh N Nice foods. We entered the Industry at 10.00 am. The authorized person Mr. Tom Santhosh explained us about the processes that involved in badam milk production. First we introduced to some control valves that are used in this process. Then he explained the production of badam milk in detail. Our Faculty explained the sensors associated with the process and explained some terms related to to the production for our better understanding. Then the person explained the process control in packaging and labeling section. In that industry we saw 2 packing machines one for glass bottles and another for plastic bottles. He also explained the packaging process in detail. We were also shown a demo in order to get a more clear idea about the badam milk production and packaging of the goods.

After 11.30 am we went for sight seeing . First we reached Anjuna beach and had lot of enjoyment there. After the lunch at 1.30 pm we goes to Chapora Fort. After 4.00 pm we started our journey to Baga Beach. We enjoyed at Baga beach till 6.00 pm and we return to our rooms and after fresh up we goes for eating dinner.

DAY 03- 11/06/2022 (Saturday)

At 10.30 am we vacated our room and had Breakfast.

1.30 pm had Lunch.

At 5.00 pm started our journey back to VJEC.

DAY 04- 12/06/2022 (Sunday)

Along with knowledgeknowledge, the bond of being together had increased by the time we were back to Vimaljyothi and reached college on 12/06/2022 (Sunday) 6.30 am in the morning.

Accompanying Staff : Dhanoj M , Assistant Professor, Dept. Of EIE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

INDUSTRIAL VISITREPORT S6 CSE A (2020-2024 BATCH)

DATE: 10 March 2023 to 12 March 2023

LOCATION: UDUPI, DANDELI & GOKARNA

INDUSTRY: BLUELINE COMPUTERS & ZEPHYR TECHNOLOGIES

PART-A

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Class Details:

Dates of Visit: From:10/03/2023 To 12/03/2023

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
COMPUTER SCIENCE & ENGINEERING	6TH SEMESTER	61	56
Reason for students who are not visiting :		PERSONAL ISSUES , FAMILY FUNCTIONS	

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
Zephyr Technologies and Solutions	Chief Executive Officer	8111843307
Industry address for communication:	5th floor,Oberle Towers,Balmatta,Mangaluru,575001 Mail@zephyrtechnologies.co	

Name of the Industry	Contact person @Industry	Contact number @Industry
Blueline Computers	The Director	9108430962
Industry address for communication:	3rd floor,Brahma samaja Building,near Navabharath Circle,mangaluru,575003 info@bluelinecomputers.co.in	

Faculty Details:

Accompanying staff	Designation	Contact number
AKHIL K K	ASSISTANT PROFESSOR	+91 9074915083
SISNA	ASSISTANT PROFESSOR	+91 9526352907
~~DINSHA P K~~ Vidhya SS	ASSISTANT PROFESSOR	~~+91 9061668218~~ 9496666700

Transport Details:

Mode of Transport	Name of the Travel and Address
Bus + Traveller	PEE YEM HOLIDAYS MAYYIL,KANNUR,670602 PH: +91 9562922974

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Faculty Details:

Accompanying staff	Designation	Contact number
Akhil K K	ASSISTANT PROFESSOR	+91 9074915083
~~Dinsha P K~~ Vidhyass	ASSISTANT PROFESSOR	~~+91 9082668218~~ 9496666700
Sisna	ASSISTANT PROFESSOR	+91 9526352907

Parent Details:

Accompanying parent	Parent of	Contact number
Bhagyalakshmi.P	Nikhil P	8547579446

Co-ordinators Details:

NAME	Designation	Contact number
VISHNU VISWANATH	Co-ordinators	+91 9539800164
IRENE TREESA CIBI	Co-ordinators	+91 7559064554

Transport Details:

Mode of Transport	Name of the Travel and Address
Bus + Traveller	PEE YEM HOLIDAYS MAYYIL,KANNUR,670602 PH: +91 9562922974

Diya Rameshan

Accomp. Staff

Tutor
Dinsha · P· K   27/2/23

HOD   28/2/23

Sisna · p
As per plan AKHIL KK
Dinsha · P·K   27/2/23
27/3/23 Vidhya SS

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
INDUSTRY INSTITUTE PARTNERSHIP CELL
INDUSTRIAL VISIT / TOUR REPORT

Date:10/03/2023

Course & Department	COMPUTER SCIENCE & ENGINEERING
Date(s) of Visit	10/03/2023
No. of Students visited	56
Accompanying Staff Members	Mr.AKHIL K K Mrs.SISNA Mrs.DINSHA P K Ms. Vidhya SS
Name & Address of the Company	1) Zephyr Technologies and Solutions 5th floor,Oberle Towers,Balmatta,Mangaluru,575001 Mail id: Mail@zephyrtechnologies.co 2) Blueline Computers 3rd floor,Brahma samaja Building,near Navabharath Circle,mangaluru,575003 Mail id: info@bluelinecomputers.co.in
Feedback & Authorized Signatory from the Company	
Technical details about the Company	Enclosed / Not enclosed
Comments	

Diya Rameshan

Accomp. Staff   Tutor

Sisna.p   Dinsha. P. K   27/2/23

AKHIL KK

Dinsha P K

Vidhya SS

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department : COMPUTER SCIENCE & ENGINEERING
Purpose :   INDUSTRIAL VISIT

1. Visiting Place: Udupi,Dandeli,Gokarna

Other (if mention)

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying
	PEE YEM HOLIDAYS MAYYIL,KANNUR,670602 PH: +919562922974	TuskerTrails,Usoda,Dandeli 581365 PH:09008930843	2 DAY

Amount collected from individual student   for the particular place (including Boarding/
Lodging/ Conveyance) k :   5700

Total amount collected from the student's : 319200

Dept. IIPC Coordinator   PC

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification & Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter ✓		
2.	Students Name List Signed ✓		
3.	Class Cancellation Circular ✓		
4.	Schedule of visit Signed by ✓ Accompanying Staff, PC/FA,HOD		
5.	Hostel Permission form ✓		
6.	Permit copy or Railway Reservation Details ✓		
7.	Parent's declaration form if it is Industrial Tour		
8.	Previous Industrial Visit Report submission		

Signature of Class Representatives / IV Co-ordinators with name: VISHNU VISWANATH ~~signature~~
IRENE TREESA CIBI ~~signature~~

Diya Rameshan Tutor Dinsha.P.K 27/2/23	~~HOD signature~~ 28/2/23	Approved / Not Approved Principal 28/2

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place : VJEC   Reaching Place : DANDELI,GOKARNA
Approximate Traveling Distance (in KM) : 1041 KM

Departure time   : 5 AM
Reaching time at company   : 11 AM
Lunch time   : 1 PM
Departure time from company   : 1 PM
Arrival time at college   : 7 PM

Amount collected from individual student (including Conveyance/ Boarding) : 5700
Total amount collected from the student's: 319200

Accomp. Staff	Tutor	~~HOD signature~~ 28/2/23	Principal

Sisva.p.San
ATHIL KK ~~signature~~
Dinsha P K ~~signature~~
Vidhya S S ~~signature~~ 27/2/23

Diya Rameshan
Dinsha P K ~~signature~~
27/2/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place :   VJEC   Reaching Place : Dandeli,Gokarna

Approximate Traveling Distance (in KM) : 1041 KM

Departure time   : 5 AM(10/03/2023)

Arrival time   :7 pm (12/03/2023)

Starting 5-00Am - 10/3/23
Return 12/3/23 - 7-00 PM

Day 1 10/03/2023	5.00am	Leaving from college	0	
	9.00-9.30 am	Breakfast at Kasargod	106km	At Hotel
	9.30 am- 11.00 am	Travelling to Mangalore	155 km	Travelling
	11.00am- 12.00pm	Industrial Visit	155km	Zephyr Technologies and Solutions
	12.00pm- 1.00pm	Industrial Visit	155km	Blueline Computers
	1.00pm- 1.30pm	Lunch	155km	At Hotel
	1.30pm- 3.00pm	Travelling to Malpe Beach	220km	Travelling
	3.00pm- 3.30pm	Malpe Beach	220km	Site seeing
	3.30pm- 4.30pm	St.Mary's Island	220km	Site Seeing

	4.30pm-10pm	Travelling to Dandeli	515km	Travelling
	10pm-10.30pm	Dinner	515km	
	10.30pm	Stay at Resort	515km	Tusker trails
Day 2 11/03/2023	6.00 am	Fresh up	515 km	
	7.00am-8.00 am	Breakfast	515km	
	9.00am-5.00pm	10 Events -Zorbing -Boating -Jacuzzi -Treckking -Cycling -Archery -Target shooting -Rafting -Swimming pool	515km	Activities
	7.00pm-8.00pm	Dinner	515km	
	8-9.30pm	Musical Night	515 km	
	10pm	Stay at Resort	515 km	Tusker trails
Day 3 12/03/2023	5am	Fresh up	515km	
	6am-9am	Travelling to Gokarna	646km	Travelling

9am–9.30am	Breakfast	646km	At Hotel
9.30am – 10am	Kudle Beach	646km	Site Seeing
10am–10.30am	Om Beach	648km	Site Seeing
10.30am	Gokarna to College	1041km	Travelling
7.pm	At College	1041km	VJEC

Amount collected from individual student : 5700/-

Total amount collected from the student: 319200/-

Industries are not available on 11th March as it is a Second Saturday.

Vidhya SS ~~3/3/2023~~
Accomp. Staff   **Tutor**

As per plan:
1. AKHIL KK
2. Sisva·p
3. Dinsha·P·K 23/2/23

DINSHA·P·K 23/2/23

Diya Ramshan 29/2/23

HOD 24/2/23

Principal

blue line
COMPUTERS
Since 2006

PERMISSION GRANT LETTER FOR INDUSTRIAL VISIT TOUR

To,

Vimal Jyothi Engineering College
Chemperi, Kerala

Reg : Permission Grant Letter for Industrial Visit Tour at Blueline Computers Mangalore

Dear Concerned,

As per your request to conduct an Industrial Visit in our Organisation, we hereby confirm that 56 students accompanied by 4 faculties will be given an opportunity to interact with our Developers and take part in the Industrial Visit Tour which is likely to be scheduled on 10th March, 2023. All students participating in this Industrial Visit Tour will be granted a Certificate from our Organisation along with a session on "How to Build a Career as a Mobile App Developer".

We look forward to meeting you all.

Many Thanks,

Shaan SK
Director, Blueline Computers
+91-91084 30862
Email:info@bluelinecomputers.co.in

Office Add:
Blue Line Computers
No 304, 3rd Floor
Brahma Samaj Complex
Navabharath Circle, Kodialbail
Mangalore - 575003

www.bluelinecomputers.com
androiddeveloperamangalore.com
app@bluelinecomputers.com
shaan@bluelinecomputers.com
Mobile:9109430862 |

CONFIRMATION LETTER

This is to confirm that 56 Students and 4 Faculty of Vimal Jyothi Engineering College is permitted to do Industrial visit at Zephyr Technologies & Solutions Pvt Ltd, Mangalore on 10/03/2023.

Date: 24-02-2023

Place: Mangaluru

Zephyr Technologies and Solutions Pvt Ltd

Abdulla Abid Samah
Chief Executive Officer

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

STUDENT LIST

Course & Department : COMPUTER SCIENCE & ENGINEERING
Purpose : INDUSTRIAL VISIT

	Sl.No	Register No.	Name	Signature	
7092	1.	VML20CS004	Abhinav Puroshothaman		·
7124	2.	VML20CS006	Abhirami K P		·
6934	3.	VML20CS010	Abin Devasia		·
7100	4.	VML20CS013	Adarsh K		·
7132	5.	VML20CS016	Adil		·
6974	6.	VML20CS019	Ajal K		?
7052	7.	VML20CS022	Alan Joseph		·
7008	8.	VML20CS042	Anjtha Nambiar		·
6935	9.	VML20CS031	Amal Binoy		·
6944	10.	VML20CS036	Ancily Sunny		·
7363	11.	VML20CS039	Angel Thomas		·
7036	12.	VML20CS045	Ann Mariya Sebastian		·
6939	13.	VML20CS050	Anurenj M		·
7043	14.	VML20CS053	Ashwin M		·
7291	15.	VML20CS056	Aswin K		·
6986	16.	VML20CS059	AthullyaT		·
7247	17.	VML20CS062	Basim		·
7271	18.	VML20CS066	C C Nipun Das		·
7361	19.	VML20CS068	DALVEN JOSE		·
7073	20.	VML20CS070	Dilna P		·
7323	21.	VML20CS071	Diya Jojan		·
6676	22.	VML20CS074	Elcita Jose		·
6916	23.	VML20CS077	Fathima Shana A		·
7298	24	VML20CS080	Gokul Sunil		·
7112	25.	VML20CS083	Harsha Muraleedharan		·
6940	26.	VML20CS086	Irene Treesa Cibi		·
7223	27.	VML20CS089	Jishnu P		·
6879	28.	VML20CS092	Joel Jose		·
6899	29.	VML20CS095	Joseph Varghese		·
7356	30.	VML20CS096	Karthik Shiva P R		·
6988	31.	VML20CS105	Malavika Murleedharan		·

7051	32.	VML20CS111	Mathew Abhijeet	
6993	33.	VML20CS114	Mohammed Anzil	
7355	34.	VML20CS116	Mufaz Musthafa	
7149	35.	VML20CS119	Nachikethas V sushil	
6938	36.	VML20CS123	Nandhana K	
7337	37.	VML20CS126	Naveen K Mathew	
7179	38.	VML20CS129	Neha E	
7098	39.	VML20CS132	Nikhil P	
7316	40.	VML20CS133	O V Anagha	
6946	41.	VML20CS136	Pranav Sunesh	
7135	42.	VML20CS139	Prithwin Ratnan A	
6860	43.	VML20CS142	Saayanth P	
6987	44.	VML20CS175	Tresa Sebastian	
7155	45.	VML20CS148	Saranga Vinod	
6998	46.	VML20CS151	Shalwin Mathew Abraham	
7114	47.	VML20CS155	Shon Shaji	
7038	48.	VML20CS158	Sidharth Kesav	
7257	49.	VML20CS161	Sidharth Sham Lal	
7150	50.	VML20CS167	Surya Prakash	
6891	51.	VML20CS170	Theertha Harikrishnan	
6933	52.	VML20CS173	Thomas P S	
7113	53.	VML20CS177	VengatteriAnshi Shiburaj	
7173	54.	VML20CS180	Vishnu Viswanath	
7279	55.	VML20CS185	Zehan Zakariya	
7137	56.	VML20CS108	Mariya Manoj	

Permitted / Not permitted

Tutor   Diya Rameshan
        Orinsha. P.K
        24/2/23
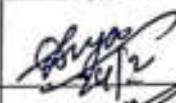
HOD

Page 22 of 184

CLASS CANCELLATION CIRULAR

Course & Department : COMPUTER SCIENCE & ENGINEERING
Date of class cancellation : 10/03/2023
Purpose : INDUSTRIAL VISIT

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	1st hour	CST304 Computer Graphic And Image Processing	Ms.Sreelakshmi M	20/2/23
2.	2nd hour	CST302 Compiler Design	Ms. Divya B	24/2
3.	3rd hour	CST306 Algorithm Analysis and Design	Ms. Diya Rameshan	24/2/23
4.	4th hour	CST302 Compiler Design	Ms. Divya B	24/2
5.	5th hour	CST304 Computer Graphics and Image Processing	Ms. Sreelakshmi M	20/2/23
6.	6th hour	HUT300 Industrial Economics and Foreign Trade	Ms. Divya K	20/2/2023

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

HOSTEL PERMISSION FORM

Course & Department : COMPUTER SCIENCE & ENGINEERING   Date:20/02/2023
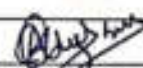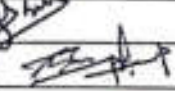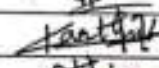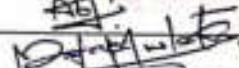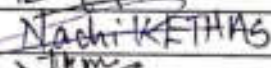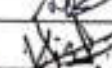
Date of permission : 10/03/2023 - 12/03/2023

Purpose : INDUSTRIAL VISIT

Start time : 5 AM   Return time : 7 PM

Hostel : Boys

Sl.No	Admission. No	Name	Signature
1.	7100	ADHARSH K	
2.	7132	ADIL	
3.	6935	AMAL BINOY	
4.	7043	ASHWIN M	
5.	7361	DALVEN JOSE	
6.	7248	GOKUL SUNIL	
7.	7358	KARTHIK SHIVA PR	
8.	7051	MATHEW ABHIJITH	
9.	7355	MUFAZ MUSTHAFA	
10.	7149	NACHIKETHAS V SUSHIL	
11.	7337	NAVEEN K MATHEW	
12.	7098	NIKHIL P	
13.	6946	PRANAV SUNESH	
14.	7135	PRITHWIN RATHNAN A	
15.	7114	SHON SHAJI	
16.	6998	SHALWIN MATHEW ABRAHAM	
17.	7038	SIDHARTH KESAV	
18.	7257	SIDHARTH SHAMLAL	
19.	7173	VISHNU VISWANATH	
20.	7291	ASWIN K	

Permitted / Not permitted

Fr. Bibin   27/02/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

HOSTEL PERMISSION FORM

Course & Department : COMPUTER SCIENCE & ENGINEERING   Date:20/02/2023
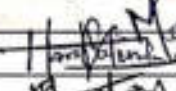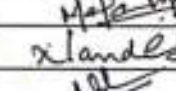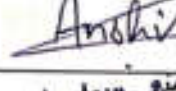
Date of permission : 10/03/2023 - 12/03/2023

Purpose : INDUSTRIAL VISIT

Start time : 5 AM   Return time : 7 PM

Hostel : Girls

Sl.No	Admission. No	Name	Signature
1.	7124	ABHIRAMI KP	
2.	6944	ANCILY SUNNY	
3.	7363	ANGEL THOMAS	
4.	6986	ATHULYA T	
5.	7323	DIYA JOJAN	
6.	7112	HARSHA MURALEEDHARAN	
7.	6940	IRENE TREESA CIBI	
8.	6988	MALAVIKA MURALEEDHARAN	
9	6938	NANDHANA K	
10	7174	NEHA E	
11	7316	OV ANAGHA	
12	7155	SARANGA VINOD	
13	7150	SURYA PRAKASH	
14	7113	VENGATTERI ANSHI SHIBURAJ	
15	7137	MARIYA MANOJ	

Permitted / Not permitted

Sr Valsamma Joseph

24/2/23

TRANSPORT DEPARTMENT, KANNUR RTO

Kerala

Form P.Co.

[See Rule 144(b)]

PERMIT IN RESPECT OF CONTRACT CARRIAGE PERMIT (CONTRACT CARRIAGE PERMIT)

PART-A

Date of replacement of Vehicle under model condition of the Permit

Permit No	KL2023-CC-4170A
Name Of The Permit Holder	SHAMAS K
Father's/Husband's Name (in case of Individual)	MUHAMMAD
Permanent Address	C H HOUSE KOTTUR KADACHIRA PO KADACHIRA, Kerala Kannur-670621
(i) Registration Mark of the Vehicle	KL66N0053
(ii) Make/Model	FORCE MOTORS LIMITED, A FIRODIA ENTERPRISE/TRAVELLER T1 BSIV FM2.6 CR 335
(iii) Date of Registration	07-Oct-2017
(iv) Chassis Number	MC1E4CHASJP047260
(v) Engine Number	D67007939
(vi) Class of Vehicle	Bus
(vii) No of Passengers to be carried(including driver)	13
(viii) Fuel Type	DIESEL
(ix) Permit Issue Date	18-Jan-2023
(x) Manufacturer Year	2017
(viii) Name of Financier if any,with whom the Vehicle is under Hire Purchase aggrement	SHRIRAM FINANCE LIMITED
(ix) Service Type	Ordinary Service

6. Route/Area for which permit is valid.

Region Covered : ALL FIT ROADS IN KERALA STATE EXCEPT THOSE PROHIBITED BY LAW IN FORCE

Permit Issue Date 18-Jan-2023

Validity of the Permit From 18-Jan-2023 To 17-Jan-2028

Date of Replacement of Vehicle

Nature of Goods to be Carried NON HAZARDOUS :OTHER: ONLY

Parking Place

Purpose Of Journey Approved by STA/RTA

Rate of fare approved

This permit shall be subject to the conditions laid down in Section 84 of the Motor Vehicle Act, 1988

Conditions of Permit List Attached

18-Jan-2023 11:14:43

: This is a computer generated certificate of Permit and can be verified online through QRCode. No signature required.

Contract Carriage Permit
FORM P.Co.
[See Rule 144(b)]

Regional Transport Authority,
MAVELIKKARA

Permit No.P.Co 31/729/2019

1. Name of holder : DASAN, R

2. S/o, D/o, W/o :

3. Address : CHAKKIDAYIL KANDATHIL
KANNAMANGALAM
CHETTIKULANGARA
MAVELIKKARA

4. Registration Mark : KL-31-N-2479

5. Maximum Passenger Capacity : 49

6. Route/Area for which permit is valid : All fit roads in Kerala State except those prohibited by any law in force.

7. Period of Validity : From 12/07/2019 To 11/07/2024

8. Rate of fare per kilometer
(in the case of motor cab only) :

9. This permit does not entitle the holder
to use the vehicle herein described
a stage carriage or as a public carrier :

10. Conditions other than those specified
in item 1 to 9 above, and those under
section 84 of the Motor Vehicle Act, 1988
Central Act 59 of 1988 : Attached

Secretary RTA
MAVLIKKARA

Place : MAVLIKKARA
Date : 12/07/2019

FROM

BHAGYALAKSHMI · P

MOTHER OF NIKHIL · P

CHERUKUNNU, THALIPARAMBA

DATE : 26 - 02 - 2023

TO

THE PRINCIPAL

VIMAL JYOTHI ENGINEERING COLLEGE.

SUB : WILLINGNESS TO ACCOMPANY STUDENTS.

Respected Sir,

Myself Bhagyalakshmi.

Mother of Nikhil P is willing to accompany Students of S6 CSE-A for their industrial visit from 10th march 2023 (5:00 AM) to 12th march 2023 (7:00 PM), Starting from Chemperi to Udupi, Gokarnath, Dandeli.

Verified,

Diya Rameshan

(Tutor S6 CSEA)

Bhagyalakshmi P

26/02/2023

PART-B

VIMAL JYOTHI ENGINEERING COLLEGE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

INDUSTRIAL VISIT REPORT

S6 CSE A (2020-2024 BATCH)

Industrial visit has its own importance in a career of a student who is pursuing a professional degree. It is considered as a part of college curriculum, mainly seen in engineering courses. Objectives of industrial visit is to provide students an insight regarding internal working of companies. We know, theoretical knowledge is not enough for making a good professional career. With an aim to go beyond academics, industrial visit provides student a practical perspective on the world of work.

The industrial visit of our class was scheduled from 10th of March 2023 to March 12th. Our splendid journey consisted of places like Udupi, Dandeli , and Gokarna . A batch of 56 students accompanied by 3 faculty members and a parent were ready to begin our industrial visit.

As we all know an industrial visit provides students with an opportunity to learn practically through interaction, working methods and employment practices, so to enhance our knowledge we visited 2 different industries the first one being Zephyr Technologies and Solutions , Mangalore , Karnataka and the other Blueline Computers , Mangalore , Karnataka.

A meeting was conducted related to the industrial visit on 8th March 1:00 pm at PG lab, in the meeting we were instructed few rules and regulations such as

- Students were divided into smaller groups and each group was given a co-ordinator so that everyone gets individual attention and stays safe.
- Everyone was told to bring their necessary medicines.
- Consumption of alcoholic substances was strictly prohibited
- The accompanying staff have the right to cancel the tour at any point of time, on any circumstances of violation of the above guidelines.

The same day evening at 7pm there was an online meeting conducted with the presence of all students, their parents,

accompanying teachers , the HOD and the principal. In the meeting, we discussed the schedule so that all parents have a clear cut idea of the industrial visit . Parents also had an opportunity to ask their concerns and queries regarding the time , accessibility of prayer room and other issues .

List of faculties and parent accompanied:

1 . Akhil K K , Assistant Professor, CSE Dept

2. Mrs Vidhya S S , Assistant Professor, CSE Dept

3. Ms Sisna , Assistant Professor, CSE Dept

4. Mrs Bhagyalakshmi P , Parent of Nikhil P

Student Coordinators:

1. Vishnu Viswanath
2. Irene Treesa Cibi

Industry details :

1. BlueLine Computers
   Manglore , Karnataka , 575003

2. Zephyr Technologies and Solutions Manglore , Karntaka , 575001

Transport details:

Mode of transportation: Bus

Travel details: PEE YEM HOLIDAYS

Mayyil , Kannur , 670602 , 9562922974

<u>Accommodation details:</u>

Resort: Tusker Trails

      Usoda , Dandeli

The boys got to stay in tents and the girls were allotted rooms.

DAY - 1 (10.03.23)

The day started off at 3:30 am, all were excited to go on this much awaited journey. The hostel echoed with noises as everyone were getting ready. We were requested to reach the college premises at 4:30 am as the trip had to start at 5:00am. As soon as we started our trip we played songs, danced and enjoyed every moment . After some dancing and singing along everyone decided to get some rest and went to sleep .

9:00 am - We reached Kumbla , Kasaragod where we had our breakfast which was an average meal .

11:00 am - We reached Mangalore . Went to our first industry, Blueline computers. There we had an hour class on mobile app development, Ms Sruthi did an amazing job on explaining the topic to us . Then we were given our certificates and continued our visit.

12:00 pm- Reached our second industry Zephyr Technologies in Mangalore , it was a 10 minute drive from Blueline Computers . Zephyr provided us with an hour class on artificial intelligence and data science, it was an amazing and very informative class . After the class the CEO of Zephyr shared some real life experiences of his own and encouraged us to study well and get a job.

1:30 pm – Reached Udupi to have lunch. As the food was a bit delayed we played damsharas together to kill time . The teachers joined along to make it more fun. After lunch we continued our journey to the next destination that is Malpe Beach .

3:00 pm – We reached Malpe Beach , we did a bit of site seeing from there and then went to a near by island , St Mary's Island . To reach the island we had to go on a 15 minute boat ride which was really fun , we played songs and danced .

At St Mary's Island we went on site seeing and clicked a lot of good pictures , there were cold breeze from the sea which was a relief on a sunny day .

We left St Mary's Island at 5:00 pm and began our journey to Dandeli , which is a long way to go . A bus ride of 515km was required to reach Dandeli .

On the way we stopped at a hotel to have dinner.

Unfortunately, there was an accident and a forest fire on the way which made us late to reach the resort but somehow we managed and reached our resort.

11:30 pm – We reached the resort; everyone was tired so we decided to shower. The boys got to stay in tents and girls were provided with rooms .As it was very cold, there was a small camp fire set up to heat ourselves . So after shower we went there and had small talks with everyone as well as heated up ourselves . Then as it was late we decided to get some rest so we all went to bed by 2:00 am .

DAY – 2 (11.03.23)

We started our day at 7:30 am , freshened up by 7:45 am . Then we gathered at the canteen of our resort , Tusker Trails to have our breakfast . They organised a very nice breakfast in a buffet manner , it was very delicious and we enjoyed the food .

9:00 am – Headed towards our water activity spot , it was a 10 minute travel from our resort . Over there we had different sorts of activities like zorbing , boating , rafting , ziplining , kayaking . All of us had a great time and had a lot of fun . This was one of the most memorable moments from our industrial visit.

1:30 pm - We returned back to our resort to have lunch , they prepared a buffet and served us our food . After having lunch we decided to play carroms, go for cycling , and do some archery . Each one of us took turns in these activities.

3:00 pm – It was time for us play in the swimming pool.

6:00 pm – Tea break time.

6:30 pm – We had a blast full time at the musical night , where we danced our hearts out . There was artificial rain pouring from above us , we had a DJ who played songs to which we danced.

7:30 pm – Freshened up, went to have food

8:30 pm - Camp fire time , we all sat together at the camp fire , played antakshari , sang along to songs . In total we had a good time together . It was a peaceful and calm environment which all of us enjoyed.

11:30 pm – Went to bed.

<u>DAY – 3</u> (12.03.23)

We woke up early at 4 am and were instructed to get ready by 5am as we had to travel to Gokarana , our last destination . As it was very early everyone fell asleep as soon as they got into the bus.

8:00 am- Got off at a hotel to have breakfast , we reached there a bit early so the food wasn't completely prepared so we had to wait for a few minutes . We utilised this time to take some good pictures as it was very sunny and we had the perfect natural lighting.

9:15 am -We reached Kudle beach. It has natural c shape, the northern end of which is connected to main beach of Gokarna and southern part connected to Ohm beach .It was paradise to those who are peace-loving ,as one can get the most serene and silent atmosphere.

10:00 am – We reached Om Beach. It was bigger than we expected. There were many huge rocks all over the place , we climbed on top of those to click some photos.

By 10.30 we returned to our bus and started our journey back. On the way we engaged ourselves by watching movies, singing songs and dancing. Even teachers joined us in this fun.

2:00 pm – Stopped at a restaurant to have lunch. After lunch we continued our return journey.

As we all were tired, we took a nap and woke up for tea at 5:30pm .

7:30 pm – We stopped at Forum mall, Mangalore to have our dinner. We ate food and did some shopping.

By 8:15 pm we headed back to our bus and continued our journey , on the way back it was one of our classmates birthday so we decided to give him a surprise birthday party. It was a new experience for us as we celebrated it on roadside. As we had stopped our bus we took this opportunity to shoot a reel. The link is given below:

https://www.instagram.com/reel/Cpz_fiqApQI/?igshid=Ym MyMTA2M2Y=

On our way back we did face a lot of difficulties such as terrible traffic jam, one of our classmates was sick and she started throwing up , the bus engine heated up which ended up us switching bus midway. Even after all these difficulties we as a class overcame all these challenges and made this an unforgettable one.

We reached our college at 1:00 am. With this our IV comes to an end, an experience none of us are going to forget , something filled with laughter and joy.

OUTCOME :

This industrial visit provided us students with a chance to meet industry leaders, professionals, entrepreneurs, and corporates who share their wisdom, learning, and experiences.

VIMAL JYOTHI ENGINEERING COLLEGE

DEPAERTMENT OF COMPUTER SCIENCE AND ENGINEERING

INDUSTRIAL VISIT REPORT

S6 CSE B (2020-2024 BATCH)

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Class Details:

Dates of Visit: From: 10/03/2023 TO   12 /03/2023

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
COMPUTER SCIENCE & ENGINEERING	6TH SEMESTER	60	50
Reason for students who are not visiting :		PERSONAL ISSUES , FAMILY FUNCTIONS	

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
ZEPHYR Technologies and Solutions Pvt. Ltd	Abdulla Abid Samah (CEO)	8118433307
Industry address for communication:	Oberle Tower, 2nd Floor, Balmatta, Manglore – 575002	

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
Blueline Computers	Shruthi K (HR)	9108430962
Industry address for communication:	3rd Floor Brahma Samaja Complex Near Navabharath Circle Mangaluru, Karnataka 575003	

Faculty Details:

Accompanying staff	Designation	Contact number
JOSY JAMES	ASSISTANT PROFESSOR	7977756155
SREEDAYA	ASSISTANT PROFESSOR	7025817417
SREELAKSHMI	ASSISTANT PROFESSOR	9496288840

S6 CSEB IV SCHEDULE FROM 10/03/2023 TO 12/03/2023

Day	Time	Distance	Remarks
Day 1 10/03/2023	5.00 am	0km	Starting from college
	5.00 -9.30 am	157 km	Travelling to mangalore
	9.30-10.30 am	-	Breakfast
	10.30-11.30	-	Industrial visit at ZEPHYR Technologies
	11.30-12.30 pm	-	Industrial visit at BLUELINE COMPUTERS
	12.30 -1.30 pm	-	Lunch
	1.30-9.00 pm	483 km	Travelling to goa
	9.00-10.00 pm	-	Dinner
	10.00 pm	-	@Resort ROYALE ASAGOA
Day 2 11/03/2023	8.00 -9.30 am	-	Freshup and breakfast
	9.30-10.15 am	499 km	Travelling to aguda fort
	10.15-11.00 am	-	Siteseeing @aguda fort
	11.00-12.00 pm	515 km	Travelling to anjuna beach
	12.00-12.45 pm	-	Siteseeing @anjunabeach
	12.45-1.30 pm	-	Lunch
	1.30-2.30 pm	545 km	Travelling to old goa church
	2.30 – 3.15 pm	-	Siteseeing @goa church
	3.15-4.00 pm	570 km	To baga beach
	4.00-5.00 pm	-	@baga beach
	5.00 – 6.30 pm	-	@calangute beach
	6.30 -7.00 pm	579 km	To resort ROYALE ASAGOA
	7.00 -8.00 pm	-	Freshup
	8.00 –10.30 pm	-	Dj night and dinner At ROYALE ASAGOA

S6 CSEB 1V SCHEDULE FROM 10/03/2023 TO 12/03/2023

	4.-00 – 4.30 am	-	Freshup
	4.30 – 9.00 am	778 km	Return to college
DAY 3	9.00 -10.00 am	-	Breakfast at honnavar
12/03/2023	10.00 – 1.30 pm	987 km	Return to college
	1.30-2.30 pm	-	Lunch at mangalore
	2.30 – 5.30 pm	1093	Return to college
	5.30-6.00 pm	-	Tea and snacks @kasargod
	6.00 -8.00 pm	1164 km	Return to college
	8.00 pm	-	Reaching at college

Sreelakshmi. M
Sreedya. M
Josy James

Accomp.staff

Sreelaulimi M
Sreedya. m

Tutor

HOD

Principal

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place : VJEC   **Reaching Place :** GOA
Approximate Traveling Distance (in KM) : 450 KM

Departure time   : 5:00 am (10/03/2023)
Reaching time at company   : 9:00 am , 10:00 am (10/03/2023)
Lunch time   : 12:00 pm
Departure time from company   : 1:00 pm
Arrival time at college   : 8:00 pm (12/03/2023)

Amount collected from individual student (including Conveyance/ Boarding) : 2,70,000 /-

Total amount collected from the student's: 5400 /-

Accomp. Staff   **Tutor**   **Principal** 28/2/23

Jory James   Sreedaya·M

Sreedaya M   Sheelalakshmi M

Sreelakshmi M
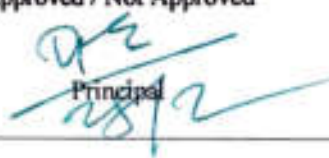
Transport Details:

Mode of Transport	Name of the Travel and Address
Bus	ROSARIYO TRAVEL HUB KANNUR +91 9526669977

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification & Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter ✓		
2.	Students Name List Signed ✓		
3.	Class Cancellation Circular ✓		
4.	Schedule of visit Signed by Accompanying Staff, PC/FA,HOD ✓		
5.	Hostel Permission form ✓		
6.	Permit copy or Railway Reservation Details ✓		
7.	Parent's declaration form if it is Industrial Tour ✓		
8.	Previous Industrial Visit Report submission		

Signature of Class Representatives / IV Co-ordinators with name:

Tutor Sheedaya. M		Approved / Not Approved Principal

4

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department : COMPUTER SCIENCE & ENGINEERING

Purpose : INDUSTRIAL VISIT

1. Visiting Place:

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person (Other (if mention))	No. of days for staying
	ROSARIYO TRAVEL HUB **KANNUR** PH : 9847338940	Royale Asagoa Resort Jojin George . 9526669977	2

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance) k :

Total amount collected from the student's :

Dept. IIPC Coordinator   PC   HOD
                                                                     28/2/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Faculty Details:

Accompanying staff	Designation	Contact number
JOSY JAMES	ASSISTANT PROFESSOR	7977756155
SREEDAYA	ASSISTANT PROFESSOR	7025817417
SREELAKSHMI	ASSISTANT PROFESSOR	9496288840

Parent Details:

Accompanying parent	Parent of	Contact number
SOLY THOMAS	ALAN JYOTHIS THOMAS	9495619137

Co-ordinators Details:

NAME	Designation	Contact number
SAYANDH S ANAND	Co-ordinators	+91 94006 68391
FATHIMATH RAJIYA PK	Co-ordinators	7356028048

Transport Details:

Mode of Transport	Name of the Travel and Address
Bus	ROSARIYO TRAVEL HUB KANNUR +91 95266 69977

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

HOSTEL PERMISSION FORM

Date:20/02/2023
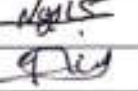
Course & Department : COMPUTER SCIENCE & ENGINEERING
Date of permission : 10/03/2022 - 12/03/2023
Purpose : INDUSTRIAL VISIT
Start time : 4·00 am   Return time : 8·00 pm

Hostel: BOYS

Sl.No	Roll No.	Name	Signature
1.	1	ABHIJITH A	
2.	12	ANEKH S	
3.	~~8~~ 8	~~MIDHUNACHANDRAN~~ ALBIN JOE THOMAS	
4.	40	NANDAKISHORE A	
5.	45	PRECIOUS PP	
6.	57	THEJAS K	
7.	59	VISHUNATH K	
8.	60	VYSHNAV SREESHAN	
9.	7	ALAN JYOTHIS THOMAS	

Permitted / Not permitted

Tutor

HOD 28/2/23

HOSTEL WARDEN
Fr. Bibins 27/02/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

HOSTEL PERMISSION FORM

Course & Department : COMPUTER SCIENCE & ENGINEERING   Date:20/02/2023

Date of permission : 10/03/2023 - 12/03/20223

Purpose : INDUSTRIAL VISIT

Start time : 4.00 am   **Return time :** 8.00 pm

Hostel : Girls

Sl.No	Roll No.	Name	Signature
1.	6	AKHILA RAGHUNATH	
2.	9	ALEENA SUSAN	
3.	10	AMEYA PV	
4.	15	ANN RIYA SIBY	
5.	24	DIYA K P	
6.	35	K V SONA	
7.	37	MANJIMA ANN BIJU	
8.	48	SANDRA GANESHAN	
9.	27	GOPIKA MOHANDAS	
10.	33	KEERTHANA RAJEEV	

Permitted / ~~Not permitted~~

Sreedaya·M
Tutor

HOD
20/2/23

Valsamme Joseph
HOSTEL WARDEN

CLASS CANCELLATION CIRULAR

Course & Department : COMPUTER SCIENCE & ENGINEERING
Date of class cancellation : 10/03/2023
Purpose : INDUSTRIAL VISIT

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	1st hour	CST362 PROGRAMMING IN PYTHON	MS.MANJU M	
2.	2nd hour	CST304 COMPUTER GRAPHICS AND IMAGE PROCESSING	Ms.SREEDAYA M	
3.	3rd hour	CST302 COMPILER DESIGN	Ms. DINISHA PK	22/2/23
4.	4th hour	CSL332 NETWORK LAB	MS·SISNA P MS·UJWALA VIJAYAN	
5.	5th hour	AND		
6.	6th hour	CSD334 MINI PROJECT	MS·DIYA RAMESHAN MS·RAJNA CM	

Ms. Sreedaya. M
Asst. Professor,
CSE, VJEC

27th February 2023

The HOD.
CSE, VJEC

Subject :- Confirmation of accompanying parent for IV.

Ma'am,

I hereby inform you about the confirmation of the accompanying parent for the Industrial visit of the class S6 CSE-B. The accompanying parent is Soly Thomas, m/o Alan Jyothis Thomas.

Phone : 9495 619137
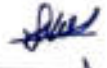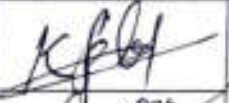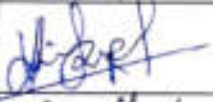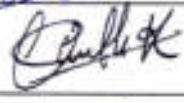
Yours sincerely,

Sreedaya. M
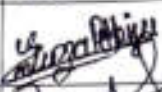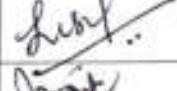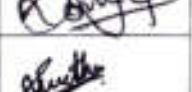
24/2/23.

STUDENT LIST

Sl.NO	NAME	PHONE NUMBER	SIGNATURE
1.	ABHIJITH A	9562791214	
2.	ABHINAV VISHWANATH	7994826696	
3.	ABHISANTH K C	8547796909	
4.	ABIN KRISHNA	8590988185	
5.	ALAN JYOTHIS THOMAS	9539870641	
6.	ALBIN JOE THOMAS	8281239282	
7.	ANEKH S	9544807653	
8.	ANSON LEON SEBASTION	6282395097	
9.	ARJUN N V	7356787806	
10.	ASWIN RAJ C	8078081864	
11.	JISHNU PRASAD	9497604904	
12.	KARTHIK T V	9539477959	
13.	K K NASIF	9538775775	
14.	MUHAMMAD NAZAL M V	9995216652	
15.	NANDAKESHORE A	7012719870	
16.	NAVANEETH K	8592961330	
17.	PRAJWAL P	8129938977	

18.	PRECIOUS P P	9946302636	
19.	RAHUL RAJ . T	9447704178	
20.	SAKETH K M	9947827233	
21.	SAYANDH S ANAND	9400668391	
22.	SHARANG P M	7994473317	
23.	SHIJIN P	8086734716	
24.	SIDDHARTH P KUMAR	9744407035	
25.	SIDHARTH P V	8547611380	
26.	SREENANDH M	7012434020	
27.	THEJAS K	7306790643	
28.	VAISHNAV KRISHNA	7736966011	
29.	VISHNUNATH K	9446903966	
30.	VYSHNAV SREESHAN	9567591753	

STUDENTS LIST

Sl.NO	NAME	PHONE NUMBER	SIGNATURE
1.	AKHILA RAGHUNATH	9895005151	
2.	ALEENA SUSAN	9544896808	
3.	AMEYA P V	9778135546	
4.	ANAGHA SANTHOSH	8129913881	
5.	ANN RIYA SIBY	9495987884	
6.	ASWATHY CHANDRADAS	9778334435	
7.	DEVIKA S	9778091881	
8.	DIYA K P	8137845052	
9.	EMLIN ELIZABATH BIJU	6238997223	
10.	FATHIMATH RAJIYA P K	7356028048	
11.	SONA K V	9747672523	
12.	LISNA C H	9605061771	
13.	MANJIMA ANN BIJU	9778150968	
14.	MEENAKSHI SURENDRAN	7994895402	
15.	SANDRA GANESHAN	7510362919	
16.	SONA SAJI	9947102198	
17.	SWETHA N	6235344765	
18.	NAYAN ROSE	8590562340	
19.	GOPIKA MOHANDAS	9778199658	
20.	KEERTHANA RAJEEV	6282479974	

ZEPHYR
Technologies & Solutions Pvt Ltd

CONFIRMATION LETTER

This is to confirm that 50 Students and 4 Faculty of Vimal Jyothi Engineering College is permitted to do Industrial visit at Zephyr Technologies & Solutions Pvt Ltd, Mangalore on 10/03/2023.

Date: 25-02-2023

Place: Mangaluru

Zephyr Technologies and Solutions Pvt Ltd

Abdulla Abid Samah
Chief Executive Officer

Android Development
- SE O [illegible] Social Media [illegible]
- Web Design & Development Domain and Hosting [illegible]

PERMISSION GRANT LETTER FOR INDUSTRIAL VISIT TOUR

To,

Vimal Jyothi Engineering College
Chemperi, Kerala

Reg : Permission Grant Letter for Industrial Visit Tour at Blueline Computers Mangalore

Dear Concerned,

As per your request to conduct an Industrial Visit in our Organisation, we hereby confirm that 50 students accompanied by 4 faculties will be given an opportunity to interact with our Developers and take part in the Industrial Visit Tour which is likely to be scheduled on 10th March, 2023. All students participating in this Industrial Visit Tour will be granted a Certificate from our Organisation along with a session on "How to Build a Career as a Mobile App Developer".

We look forward to meeting you all.

Many Thanks,

Shaan SK
Director, Blueline Computers
+91-91084 30862
Email:info@bluelinecomputers.co.in

Office Add:
Blue Line Computers
No. 304, 3rd Floor
Brahma Samaj Complex
Navabharath Circle, Kodaibai
Mangalore - 575003

www.bluelinecomputers.com
androiddevelopermangalore.com
info@bluelinecomputers.co.in
Mobile 91384[illegible] ; 99882[illegible]

INTRODUCTION

Industrial visits are an integral part of Engineering and acknowledgement of technology upgrades. The purpose of industrial visits for students is to provide technical knowledge with the technological development in the industry and to understand the gap between theoretical and practical knowledge that could be passed in future. This experience can help students to provide information regarding the functioning of various industries and associated problems and limitations.

The industrial visit of our class was scheduled from 10th of march 2023 to 12th of march. The visit is important especially in the field of Engineering as the practice of engineering has an inherent impact on society. Our journey consisted of places like Mangalore and Goa. A batch of 50 students accomplished by 3 faculties and parent were ready to join with us.

As we know industrial visit helps the students to learn practically to enhance the knowledge. We visited 2 different industries the first one being Zephyr Technologies and Solutions, Mangalore, Karnataka and secondly Blueline Computers, Mangalore, Karnataka.

A meeting with the students who are they are for the industrial visit was conducted on 9th of March at 11:45 am and the following general instructions were given:

1. The students will be divided into a group of 5 and everyone have to take care of their group members

2. Everyone should save the contact number of all the staffs and parent who are accompanying

3. Everyone should take necessary medicines required for the journey

4. As per the plan, the journey is to start about 3.00 am on 10th of March, everyone should reach the campus at 2:45am itself.

5. The accompanying staff have the right to cancel the tour at any point of time, on any circumstances of the violation of the above rules.

Goa
VILAYATTAM

CYBER CITY

Industry visit,Mangalore

Murudeshwar, karnataka

Calangute Beach,Goa

Agoda Fort,Goa

Anjuna beach,Goa

Old Goa church

CSE B

LIST OF FACULTIES & PARENTS ACCOMPANIED:

Mr. Josy James, Assistant Professor, ME Dept

MS. Sreedaya M, Assistant Professor, CSE Dept

MS. Sreelakshmi, Assistant Professor, CSE Dept

Mrs. Soly Thomas, Parent of Alan Jyothis Thomas

STUDENT COORDINATORS:

Sayandh S Anand

Fathimath Rajiya

INDUSTRY DETAILS

1.Zephyr Technologies and Solutions

Mangalore, Karnataka,575001

2.BlueLine Computers

Mangalore, Karnataka,575003

TRANSPORT DETAILS:

Travel Details: Rosario Travel Hub, Cherupuzha, Kannur,670511, Bus
no: KL 38 H 9095

ACCOMMODATION DETAILS:

Royale Assago Resort

Socolo WadoMapusa,

Anjuna Chapora Rd

Goa-403507

DAY 1(10-03-2023)

We started off at 3am, all were reached the college by 2:45. All of us were excited for this journey. As the trip was started, we danced and enjoyed each moment.

At 6:30am we stopped at Kasaragod where we had our breakfast.

Upon arrival at the Zephyr Technologies and Solutions Mangalore, we were warmly welcomed by the CEO who gave as brief introduction to company and its history. We reached they are by 9am.The company employers inspired and motivated us with real world experience of working in IT field. Before the sessions get started, we experience the office amenities that they provided for their employers. They took classes on machine learning, web development and graphics.

Then we move to our next industry Blueline Computers Mangalore. From there we had a session on app development which last nearly one hour, it was an amazing and very informative class.

At 11:30 move on from Mangalore and we had our lunch from Udupi. After lunch we moved from there. We stopped at Murudeshwar for refreshment, we clicked lot of good pictures a we left they are by 5:30 pm and began our journey to Goa, which is a long way to go.

On the way we stopped at a resort to have the dinner.

At 11 we reached the resort. We were to groups and for each group a room was allocated and then as it was late, we decided to fresh up and take some rest.

DAY 2(11.03.2023)

We started our day at 7:30 am
All of accesses pool and had a lot of fun in it
Then all got fresh up and had our breakfast at 9:00
And then we moved to our first destination Aguada fort

We had a lot of fun and saw many excited things like the old prison, was halfway underground and the beauty of the sea from the top of the fort but it extremely hot as it was a sunny day

Then we moved to Old Goa church which is one of the most visited tourist spots in Goa, this spot different from the all other we visited
As it was historical spot

At 1 o clock we had our lunch from a Kerala style restaurant

Then we moved to first beach destination in Goa -
Calangute beach, it was long beach and had a vast area for shopping
And had a vast number of tourists
Then we moved to Anjuna beach which is rockslides beach Which is
best spot for photography and enjoying the sunset

Then had a great dance and fun in the DJ party arranged by our travel
agency, it was great fun and everyone enjoyed a lot . Then we had our
dinner and moved to Baga beach

Baga beach is one of the main attractions of Goa, we all gathered into
group that is already splited before the trip and entered the beach, the
night view of the beach was so beautiful that it was unable to explain

All of us had enjoyed aa lot and then returned to the resort.

DAY 3(12-03-2023)

As all of us of tired of the 2nd day's activities we started the day lately

By 9 o clock we all had breakfast and vacated the rooms and moved back to the collage

By 1 o clock we had our lunch and started our journey, the time that we spend in the bus was super fun and memorable

Then we stopped at Gokarna for a tea break and relaxing also experienced a great sun set from that spot

Then we started back to the collage and then we had our lunch,
At this time all of us had the same feeling of being at the end of the trip , at this time our bus agency crew gave us a mic for sharing the feedback, we all took this as an advantage for sharing our experience in the trip all the students and staff actively participated in this and all of them shared their experience and the fun that they had during different time of the trip

At last, about 3:00 am we reached the college campus. By this we come to end of our Industrial visit with a lot of unforgettable memories

CONCLUSION

Overall, the industrial visit was a valuable learning experience for us. We were able to witness first-hand the practical applications of the concepts we had learned in the classroom. The visit also provides us with insights into the challenges faced by the software development industry and the measures taken to overcome them. We believe that this industrial visit has motivated we students to pursue our careers in the software development industry with greater understanding of its functioning.

VIMAL JYOTHI ENGINEERING COLLEGE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

INDUSTRIAL VISIT REPORT

S6 CSE C (2020-2024 BATCH)

Industrial visit is considered as a part of the curriculum. Objectives of industrial visit are to get exposure to the real workstations, machines and systems. It provides students with an opportunity to learn practically through interaction, working methods and employment practices. It gives them exposure to current work practices as opposed to possibly theoretical knowledge being taught at college. Industrial visit provide an excellent opportunity to interact with industries and know more about the industrial environment.

Industrial visit of S6 CSE C (2020-24 Batch) was scheduled from 10th March to 12th March 2023. The 54 students were accompanied by three faculties & one parent representative. The three destinations during the industrial visit was Murdeshwar, Goa & Gokharanam.

The team visited two industries during their visit schedule, and they are:
1. Zephyr Technologies, Mangalore
2. Blueline computers, Mangalore

A meeting with the students who are going for the industrial visit was conducted on 09.03.2023 at 11.45 am in the hardware lab and following general instructions were given:
A. The students will be divided into a group of 5, and each individual have to take care of their group members
B. Everyone should save the contact no of all the staffs & parent who are accompanying
C. Everyone should take the necessary medicines required for the journey (atleast for vomiting, fever & headache)
D. Those who require personal medicines (asthma, migraine etc) should bring the required medicines also.

Prepared by Dhanoj M, Assistant Professor, EIE Dept

E. Temperature through out the travel is between 24 & 38 degree celsius, so its preferable to take an umbrella or hat or cap inorder to avoid sunburn or long exposure to sunlight may cause headache.

F. Avoid the fantasies in goa like (Drugs, Liquor, Immoral Trafficking etc)

G. Be careful when dealing with strangers while shopping

H. If at any point you are accessing pubs or nightclubs, join in groups and dont access it individually

I. Don't try to bring psychotropic substances to home

J. Avoid indulging in gambling

K. Avoid water games if its too risky

L. If you are putting in tattoos - go for the hygienic one, otherwise it may cause skin problems

M. Try to avoid outside food, due to hygienic issues

N. Try to avoid bring jewelry of costly items

O. As the plan is to start the travel at 3.00 am on 10.03.2023, everyone please reach the campus at 2.45 am itself.

P. The accompanying staff have the right to cancel the tour at any point of time, on any circumstances of violation of the above guidelines.

List of Faculties & Parent accompanied

1. Dhanoj M, Asst Professor, EIE Dept - 9446403312
2. Ms. Jijina M T, Assistant Professor, CSE Dept - 9074563167
3. Ms. Anu Tressa George, Assistant Professor, CSE Dept - 9400848561
4. Mrs. Lissi Sebastian, Parent of Abin Sebastian - 6238491774

Student Coordinators:

1. K V Henath Raj - 8590339168
2. Riya George - 6238202526

Transport Details:

Mode of transport : Bus
Travel Details: Rosario Travel Hub, Cherupuzha, Kannur, 670511, 9526669977
Bus No: KL 59 Q 5700

Prepared by Dhanoj M, Assistant Professor, EIE Dept

Accomodation Details:

Grand Goa Exotica Resort
Survey No:170/88
Near Mount Guirim High School,
Arradi, Guirim,
Bardez,
North Goa - 4035072
Tel: +91-88282 20804
Email: grandgoa@hotmail.com

Totally 15 rooms were allotted for the accommodation
List of Inmates is mentioned below:

Sl No	Room No	Inmates
1	206	Mereena Sheethal Anjima Angel
2	207	Anoushka Ancil Blessy Nandana
3	208	Tressa Afrah Adeena Anmaria
4	209	Ms. Jijina M T Ms. Anu Tressa George Mrs. Lissi Sebastian
5	210	Riya Neha Athira Malavika Nourin

6	211	Henath Sreeram Aju Geo Navaneeth
7	212	Sona Nandana C P Jithina Vismaya
8	107	Aswin Ashil Abhi Alan Adwaith
9	108	John Celestian Abhinav Jishnu
10	109	Vishnu Edwin Sidharth Thejus
11	110	Saphal Imthyaz Ahiram Shaeen
12	111	Masroor Shamil Akshay Ezhuthan
13	112	Manu Salvin Aurang Abin B P

14	007	Kiran Alan J Prithvi Pranav
15	006	Mr. Dhanoj M

Hostellers:

Boys: 11

Girls: 09

Address of the company:

1. Zephyr Technologies & Solutions
   5th Floor, Oberle Towers,
   Balmatta
   Mangaluru - 575001
   Mail @zephyrtechnologies.com
2. Blueline Computers
   3rd Floor, Brahma Samaja Building
   Near Navabharath Circle
   Mangaluru - 575003
   Mail @bluelinecomputers.co.in

Schedule of the visit

Day 1 - 10.03.2023

03.45 am - Started the travel from Vimal Jyothi Engineering College Campus

07.00 am - Breakfast at Kasaragode

08.00 am - Started to Mangalore

09.40 am - Reached Zephyr Technologies at Mangalore

11.05 am - Started to the next industry

11.20 am - Reached Blueline Computers at Mangalore

12.00 am - Started from Mangalore

01.30 pm - Lunch at Kausthubha Residency

02.15 pm - Started to Goa

05.30 pm - Tea time at Murdeshwar
10.10 pm - Dinner at Tharavadu Hotel, South Goa
12.10 am - Reached the Grand Goa Exotica Resort

Day 2 - 11.03.2023

07.00 am - Students accessed the pool
09.10 am - breakfast in the Grand Goa Exotica Resort
10.30 am - Started to Augoda Fort
11.30 am - Reached Augoda Fort
12.45 pm - Started from Augoda Fort
01.30 pm - Lunch at Boha Restaurant
02.30 pm - Started to Calangute Beach
03.00 pm - Reached Calangute Beach
05.15 pm - Started to Anjuna Beach
06.00 pm - Reached Anjuna Beach
07.00 pm - Started from Anjuna Beach
07.30 pm - DJ Party at Boha Restaurant
08.30 pm - Dinner at Boha Restaurant
09.30 pm - Reached Baga Beach
12.30 am - Return to Grand Goa Exotica Resort

Day 3 - 11.03.2023

08.30 am - Breakfast at the Grand Goa Exotica Resort
09.30 am - Started to Old Goa Church
10.45 am - Reached Old Goa Church
11.45 am - Started from Old Goa Church
01.00 pm - Lunch at Tharavadu Restaurant
02.15 pm - Started after lunch
05.45 pm - Reached Gokharana Temple
07.00 pm - Started to College from Gokharana Temple
09.10 pm - Tea time at Sirur toll Plaza
11.15 pm - Dinner at Kausthubha Residency
12.00 am - Started back to college

Day 4 - 12.03.2023

03.45 am - Reached Vimal Jyothi Engineering College Campus with 41 students, 3 faculty and 1 parent representative after dropping 13 students at different locations on the way only if their parents were available at those locations

The following students were dropped at different locations on the return trip

Sl No	Name of student	Place of drop
1	Jithina	Neeleshwaram
2	Sreeram	Payyannur
3	Henath Raj	Payyannur
4	Sheethal	Pilathara
5	Imthiyaz Ibrahim	Pilathara
6	Fasoor	Pilathara
7	Nandana C P	Thaliparamba
8	Sona Santhosh	Thaliparamba
9	Vishnu V	Thaliparamba
10	Abin B P	Thaliparamba
11	Angel	Oduvallithattu
12	Abin	Mandalam
13	Blessy	Puranjan

Students List who participated in Industrial Visit

Sl No	Register No	Name of the student
1	VML20CS166	Sreeram Pavithran
2	VML20CS047	Anoushka Sebastian
3	VML20CS035	Ancil Tresa Sunil
4	VML20CS101	K V Henathraj
5	VML20CS141	Riya George
6	VML20CS128	Neha Benny
7	VML20CS104	Malavika Manoj
8	VML20CS024	Alan K Johnson
9	VML20CS164	Blessy Seby
10	VML20CS052	Ashil Mathew
11	VML20CS003	Abhinav Mathew Kurian
12	VML20CS055	Aswindas C
13	VML20CS088	Jishnu Chandran
14	VML20CS044	Ann Maira George
15	VML20CS179	Vishnu Veenadharan
16	VML20CS058	Athira K K
17	VML20CS113	Mereena Philip
18	VML20CS041	Anjima S
19	VML20CS153	Sheethal C P
20	VML20CS150	Shaeem Ibrahim
21	VML20CS147	Saphal Santhosh
22	VML20CS104	,Manu V S

Prepared by Dhanoj M, Assistant Professor, EIE Dept

23	VML20CS061	Aurang V
24	VML20CS076	Fathima Nourin
25	VML20CS007	Abhiram Santhosh
26	VML20CS073	Edwin Marian Mathew
27	VML20CS145	Salvin T Sajan
28	VML20CS009	Abin V P
29	VML20CS174	Tressa Binoy
30	VML20CS125	Navanith Vipin
31	VML20CS122	Nandana Krishnan
32	VML20CS018	Afrah Nabeel
33	VML20CS091	Jithina Raj P
34	VML20CS181	Vismaya Hemanth
35	VML20CS094	John Joseph
36	VML20CS067	Celestian Thomas
37	VML20CS099	Kiran Kumar K P
38	VML20CS128	Nandana C P
39	VML20CS172	Thejus Dhanesh
40	VML20CS021	Akshay P V
41	VML20CS015	Adeena S
42	VML20CS085	Imthiyaz Ibrahim
43	VML20CS135	Pranav K G
44	VML20CS157	Sidharth Jayachandran
45	VML20CS115	Mohammed Shamil
46	VML20CS160	Sidharth B Nambiar

47	VML20CS138	Prithviraj
48	VML20CS038	Angel John
49	VML20CS012	Abin Sebastian
50	VML20CS110	Masroor Ahmad C
51	VML20CS163	Sona Santhosh
52	VML20CS030	Allen Adwaith
53	VML20CS058	Muhammed Ajnas
54	VML20CS079	Geo Nobins

Gallery:-

VIMAL JYOTHI
ENGINEERING COLLEGE
CHEMPERI - KANNUR

FIELD
VISIT REPORT
2022-23

DEPARTMENT OF CIVIL ENGINEERING

Prepared by

Dr. Biju Mathew
Professor & HOD

INDUSTRIAL VISIT REPORT

SEMESTER EIGHT

B.TECH CIVIL ENGINEERING STUDENTS

From

08.03.2023

To

13.03.2023

EXPLORING AND EXPERIENCES

IN HYDERABAD

TELANGANA

i-MAS Travel Agency

Hyderabad 5D-5N Itenary

Day 1 (08/03/2023)

10:10 PM   - Departure to Kacheguda in train

Day 2 (09/03/2023)

11:40 PM   - Arriving at Kacheguda railway station, Check-in at the hotel room

Day 3 (10/03/2023)

09:00 AM   - After the morning breakfast, visiting Ramoji Film City

07:00 PM   - Returning at the hotel room

Day 4 (11/03/2023)

09:00 AM   - Visit at Charminar

11:00 AM   - Golconda Fort

01:00 PM   - Lunch

03:00 PM   - Hussain sagar lake visit

05:00 PM   - Visit at Birla Mandir

09:05 PM   - Boarding the train to Bangalore

Day 5 (12/03/2023)

09:35 AM   - Arrival at bangalore

11:00 AM   - Visit to wonderla

09:47 PM   - Return train to Kannur

Day 6 (13/03/2023)

10:55 AM   - Reaching Kannur station and back to college

To

The Principal

VJEC

15th February 2023

Respected Sir

Subject: Permission for Industrial Visit

This letter is addressed to you seeking initial permission to go for our Industrial Visit for this academic year 2021-2023. We intend to go to Hyderabad tentatively on 8th March 2023 & return on 13th March 2023fnl We have almost 30 students interested for the IV.

Hence we request you to grant us permission for the same so we can go ahead with the further procedures

Yours faithfully,

Students of S8 CE B

Representatives: Yadhukrishnan KR

Hridya P
(Tutor)

15/2/23

Industrial Visit Details

Travel Partner: (iMAS Travel Company Kannur) (Ph: 9656740612)

• Hyderabad — Bangalore (Wonderla)

March 8, 2025

Train journey, Kannur to Kachiguda (10pm) evening, date night

Kachiguda Express

March 9, 2025 — 11pm

→ Arriving at Kachiguda

→ DAY 1
  * Fresh up & Breakfast
  * Local sight seeing & Industrial Visit } Golkonda Fort
  * Hotel stay

→ DAY 2
  * Fresh up & Breakfast
  * Local sight seeing
  * Ramoji Film city
  * Overnight journey to Bangalore (By train) By Train

→ DAY 3
  * Fresh up & Breakfast
  * Wonderla ___ (Industrial Visit)
  * Return to Kannur (By train)

→ Return to Kannur — March 12th By Train
→ Arriving to Kannur — March 13th early morning

Industrial Visit, Brochure.

(2019 - 2023 CEA)

* Hyderabad — Bangalore (Wonderla)

Journey By Train

March 8th, 2023,

→ Train journey, Kannur to Kachiguda
(10:00pm) ~

March 9th, 2023 - 11:00pm,

→ Reaching Arriving at Kachiguda.

→ DAY I —

   * Fresh up and Breakfast.
   * Local Sight Seeing — Industrial visit
   * Hotel Stay

   old monument. Golkonda
   Fort.

⇒ Day II

   * Fresh up and Breakfast
   * Local sight seeing
   * Ramoji Film city
   * Overnight journey to BANGALORE. (By train)

Tutor
Athira Rajesh
14/2/23.

→ DAY III

   * Fresh up and Breakfast
   * Wonderla — site Industrial visit
   * Return to Kannur (By train)
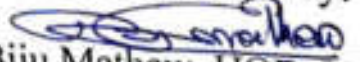
⇒ Return to Kannur, by March - 12th

⇒ Arriving to Kannur on March 13th.

14/02/2023

Event Proposal Form

1	Event Type and Name	Industrial visit
2	Date and Time	08th March 2023 to 12th March 2023
3	Participants/ Audience	S8 CE
4	Venue	Hyderabad
5	Objectives	To make the students aware of real time applications of civil structures
6	Expected Outcomes	The student will be able to know about the real world applications of Civil Structures
7	Connected PEOs/POs /COs	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO12
8	Resource Requirements	NIL
9	Any other Relevant information	NIL
10	Responsible Persons	Proposal prepared by: Ms Hridya P Ms Margaret Abraham Mr Peter Jobe Ms Athira Rajendran

Recommended By:

Dr. Biju Mathew, HOD CE

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Class Details: Dates of Visit: From .... To ....

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
CIVIL	S 8	03 104	63

Reason for students who are not visiting :

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
WONDERLA	JINNY JOSEPH	9447024483

Industry address for communication: WONDERLA AMUSEMENT PARK, HYDERABAD. Nehru outer ring road exit No.13, Ravirya, Telangana, 501510

Faculty Details:

Accompanying staff	Designation	Contact number
ATHIRA RAJENDRAN	TEACHER	9464018 15
MARGRET ABRAHAM	TEACHER	9495486226

Transport Details:

Mode of Transport	Name of the Travel and Address
By Bus / Train	kannur - kacheguda (12790) kacheguda - Banglore (17603) Banglore - Kannur (16511)

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification & Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter	Fast, Wonderla Park	
2.	Students Name List Signed	✓	
3.	Class Cancellation Circular	✓	
4.	Schedule of visit Signed by Accompanying Staff, PC/FA,HOD	✓	
5.	Hostel Permission form	✓	
6.	Permit copy or Railway Reservation Details	✓	
7.	Parent's declaration form if it is Industrial Tour	✓	
8.	Previous Industrial Visit Report submission	—	

Signature of Class Representatives / IV Co-ordinators with name:

Tutor	HOD	Approved / Not Approved
S2 CEA: ATHIRA · RAJENDRAN S8 CEB: Hridya P		Principal

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department: B·Tech· Civil department

Purpose : Industrial Visit/ ~~Tour~~

1. Visiting Place: Other (if mention)

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying
1	i-MAS travel Company Kannur, Kozhikode, UAE 9656740642, +971 561728147	Capital O Marjan International Near Bula Mandir, Chapel Rd, Public garden Road, Fateh maidan, Hyduabad, Telingana, 500001	2

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance):

Total amount collected from the student's:

2. Visiting Place: Other (if mention)

SLNo	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance):

Total amount collected from the student's:

Dept. IIPC Coordinator   PC   HOD 28/2/23

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
HOSTEL PERMISSION FORM

Date: 28/02/25

Course & Department: B.Tech, Civil Engineering (A & B division)

Date of permission: 28/03/2023

Purpose: Industrial visit

Start time: 08/03/2025   Return time: 13/03/2023

Hostel: ~~Boys~~ / ~~Girls~~

Sl.No	Roll No.	Name	Signature
1	VML19CE 002	ABDUL MALIK PC	
2	VML19CE 003	ABHIJITH JAYAN	
3	VML19CE 007	ADARSH M	
4	VML19CE 009	ADITHYA KRISHNA	
5	VML19CE 015	AKSHAY P	
6	VML19CE 038	ANTUS SUNNY	
7	VML19CE 047	DHEERAJ SUNITH	
8	VML19CE 060	KN ROMITH	
9	VML19CE 059	KARTHIK K	
10	VML19CE 070	MUHAMMED HADIL	
11	VML19CE 069	MUHAMMED RASY	
12	VML19CE 071	MUHAMMED RAZEEL · AK	
13	VML19CE 074	NITHIN JOSE	
14	VML19CE 078	RAZEEN MOOSA	
15	VML19CE 085	SANGEETH KRISHNA	
16	VML19CE 095	SONU SUBHASH PV	
17	VML19CE 102	VISHNU DINESHAN	

Tutor   HOD 28/02/23

Permitted / Not permitted

Fr. Bibin
HOSTEL WARDEN

S8 CE A

Athira Rajendran

S8 CE B

Hridya P

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
HOSTEL PERMISSION FORM

Date: 28/02/2023

Course & Department: B Tech , Civil Enginuuring (A&B division)

Date of permission: 28/02/2023

Purpose Industrial visit

Start time: 08/03/2023   Return time: 13/03/2023

Hostel: Boys 7 Girls

Sl.No	Roll No.	Name	Signature
1	VML19CE001	AARYA K	
2	VML19CE 023	ANANYA DINESHAN	
3	VML19CE 024	ANASWARA A NAMBIAR	
4	VML19CE 034	ARYA SOMAN K	
5	VML19CE036	ASWATHI ANIL	
6	VML19CE040	ATHIRA RAMESH N V	
7	VML19CE 042	CHANDHANA K	
8	VML19CE055	HRUTHIKA M R	
9	VML19CE063	LAKSHMI NIVEDITHA	
10	VML19CE 064	LAYA NARAYANAN	
11	VML19CE065	MALAVIKA K JITHENDRAN	
12	VML19CE 072	NANDANA P	
13	VML19CE 074	NILA KP	
14	VML19 CE 080	RIYA JOSE	
15	VML19CE 094	SREELAKSHMI E	
16	VML19CE 096	THANWI RAJEEV	
17	VML19CE 097	THEERTHA SURENDRAN KV	
18	VML19CE 098	TINA RAVEENDRAN	
19	VML19CE104	VISMAYA MOHAN K	
20	VML19CE 072	SOWISHA .	
21	VML19CE066	MEGHA K	
22	VML19CE 107	MILANU Q.D	

Tutor   HOD 28/02/23

S8 CE A: Athira. Rajndran

Permitted / Not permitted

HOSTEL WARDEN

S8 CE B: Hridya P

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING

CLASS CANCELLATION CIRULAR

Course & Department: B-Tech. Civil Engineering (8 batch)

Date of class cancellation: 09/03/2023 – 13/03/23

Purpose: Industrial Visit

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1	2	Environmental Engineering.	Dr. Vibheesha M P Assistant Professor.	Vish
2	2	Airport, seaport & harbour	Ms. Margaret Abraham Assistant Professor.	
3	2	Quantity Surveying & valuation	Ms. Rafin P Assistant professor.	
4	12	Project Phase II	Ms. Rafin P, Ms. Rahul Francis	

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place: KANNUR _____ Reaching Place: HYDERABAD _____

Approximate Traveling Distance (in KM): 2800 (by train)

Departure time : 08/08/2023 – 10:10 pm.

Reaching time at company :

Lunch time :

Departure time from company :

Arrival time at college : 13/03/2023

Amount collected from individual student (including Conveyance/ Boarding): ₹ 7600

Total amount collected from the student's: 4,78,800/-

Accomp. Staff	Tutor	HOD 8/02/23	Principal
Hridya P	S8 CE A :		
Athira. Rajendran	Athira. Rajendran		
Margaret Abraham			
Peter John	Hridya P		

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
CLASS CANCELLATION CIRULAR

Course & Department: __B Tech, Civil Enginuring (B Batch)__
Date of class cancellation: __09/03/2023 - 13/03/2023__
Purpose __Industrial visit.__

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1	2	Airport, Seapal & Harbour	Ms. Logi N Bobby Assistant Professor	13/03/23
2	2	Comprehensive viva voce	Ms Sigi Thomas Assistant Professor	
3	1	Repair & Rehabilitation of building	Ms Anuragi P Assistant Professor.	
4	1	Guoenviconmental Enginuring.	Mr. Saneesh - K Assistant Professor.	
5	12	Project Phase II	Ms Hridya P, Dr. Biju Mathew	

SCHEDULE OF VISIT
(May be attached separately if it is Industrial Tour)

Starting Place: __Kannur__   Reaching Place: __Hyderabad__
Approximate Traveling Distance (in KM): __2800 (By train)__

Departure time : __08/03/2023 - 10:10pm__
Reaching time at company , :
Lunch time :
Departure time from company :
Arrival time at college : __13/03/2023__
Amount collected from individual student (including Conveyance/ Boarding): __7800__
Total amount collected from the student's: __4,78,800/-__

Accomp. Staff	Tutor	HOD 28/2/2023	Principal

Athira Rajendran   S8 A : Athira.

Hridya P   S8 CEB:

Margaret Abraham   Hridya P

Sl. No	Name	Gender	Age	Parent name	Phone number
1	AARYA K	F	21	Rajeevan V V	9605637820
2	ANAGHA MOHAN N V	F	22	Mohanan C	9445960789
3	ANANYA DINESHAN	F	21	N Dineshan	8238285968
4	ANASWARA A NAMBIAR	F	21	Sunila K	9745987478
5	ANURA BALAKRISHNAN	F	23	Sreeja M K	8606831251
6	ARYA SOMAN K	F	22	Vanaja N K	9526584804
7	ASWATHI ANIL	F	21	Anil Kumar	9061815987
8	ASWATHI TP	F	20	Prasanna M	9633594423
9	ATHIRA RAMESH NV	F	20	Mini N V	9037957560
10	CHANDHANA K	F	20	Kavitha K	9544608935
11	FARHANA CV	F	21	Abdul khadar c v	9446072394
12	HRUTIKA M R	F	21	Rajeevan U V	8129929576
13	LAKSHMI NIVEDITHA	F	22	Mahesh Babu K	9497434960
14	LAYA NARAYANAN	F	21	Narayanan T K	9400481916
15	MALAVIKA K JITHENDRAN	F	21	A R Jithendran	9447889140
16	MEGHA K	F	21	Rajeevan k	9061164581
17	MIDHUJA JAYAKUMAR	F	22	Jayakumar Ayammandy	9383416541
18	MINNU B P	F	21	Balakrishnan B P	9447937915
19	NANDANA P	F	20	Shaji P	9647313475
20	NEHA SASEENDRAN	F	21	Reeja M	9656377200
21	NILA K P	F	23	A jayadevan	9495059328
22	RIYA JOSE	F	21	Jose t v	9495695295
23	SAHLA CP	F	21	Sameeha cp	9048063134
24	SIMNA DAS P	F	21	Shivadasani P	8075401892
25	SONISHA K	F	21	Suresh k	9647904945
26	SREELAKSHMI E	F	21	Prakashan	6235094889
27	THANWI RAJEEV	F	21	Neelima C	9656432345
28	THEERTHA SURENDRAN KV	F	21	Anitha k v	9400253132
29	TINA RAVINDRAN V	F	21	Ravindran P	9447085988
30	TREESA WILSON	F	21	Laly Thomas	9447039019
31	VISMAYA MOHAN K	F	21	Suma Mohan	9847835863
32	ABDUL MALIK P C	M	21	Abdul Latheef PC	8593098747
33	ABHIJITH JAYAN	M	21	Jayachandran M N	9446168954
34	ABHINAV P M	M	21	Gopalakrishnan	9495907235
35	ADARSH M	M	21	Manikandan	9744001828
36	ADARSH V V	M	21	Geetha V V	9847719388
37	ADITHYA KRISHNA S	M	21	Anitha c	7561879218
38	ADITHYA RAJ B P	M	21	SHEENA V	9747641967
39	AKSHAY P	M	21	Preetha P	9744754939
40	AMAL JOSE	M	21	Jose Peelipose	9400205263
41	ANANDHU P V	M	21	Rajesh A V	9448907460

42	ANSAF C P	M	21	Ahammed B	9447850031
43	ANTUS SUNNY	M	20	Sunny Thomas	7592889999
44	AROMAL	M	22	Sathyan C V	9847313606
45	DAYAL K	M	22	Kamalakshan T	9847027991
46	DHEERAJ MOHAN	M	23	Sumaja Mohan	9745999709
47	DHEERAJ SUNITH	M	21	sunith K V	9895567455
48	K N ROHITH	M	21	AK Remeasan	9847112346
49	KARTHIK K	M	21	Nisha k	9947866188
50	MUHAMMED HADIL HARSHAN I	M	22	Faseela k	9562729466
51	MUHAMMED RASY P C	M	22	Rasiya PC	9526781362
52	MUHAMMED RAZEEL A K	M	21	ABDUL LATHEEF P	7994112235
53	NITHIN JOSE	M	23	Joseprasad N V	7560968862
54	PRANAV E P	M	21	E P Prabhakaran	9495460495
55	RAZEEN MOOSA	M	21	Ismail S A P	9895052919
56	SAI KRISHNA T O	M	21	Radhakrishnan C K	8848040451
57	SANGEETH KRISHNA	M	21	K Gopalakrishnan	9946565507
58	SANJU N SUSHAR	M	21	Neena Sushar	7012579494
59	SARANG C H	M	21	Sajeevan C H	7025516498
60	SONU SUBHASH P V	M	21	Praseetha PV	9947127357
61	VISHNU DINESHAN	M	21	Dineshan P	9544212934
62	VISHNU M V	M	21	Ramakrishnan TV	7909124120
63	YADHUKRISHNAN KR	M	21	Unnikrishnan P	9656665050

28/02/2023

From,

Lucy M·V
Parent of Nithin Jose (VML 19CE075)

To,

HOD
Civil department VJEC

Sub: Willing to come as guardian.

Respected sir,

I Lucy M·V. Mother of Nithin Jose, I am willing
to come as a guardian for IV for Civil A, S8.
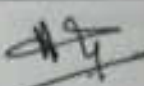
yours faithfully   Date : 28/03/2023
Lucy MV   Place : Kannur.
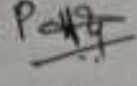
28/2/2023
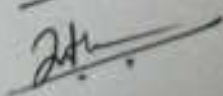
VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF ELECTRICAL ENGINEERING
INDUSTRY INSTITUTE PARTNERSHIP CELL
INDUSTRIAL VISIT / TOUR REPORT
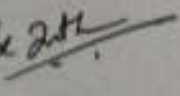
Date: 13/3/23
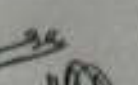
Course & Department	B Tech, Civil Engineering.
Date(s) of Visit	9/3/23 to 12/3/23
No. of Students visited	62
Accompanying Staff Members	Peter Jobe, Athira Rajendran Hridya P, Margaret Abraham
Name & Address of the Company	Golkonda Fort, Hyderabad Wonderla, Bangalore
Feedback & Authorized Signatory from the Company	Travel guide explained students about the history, relevance and archological importance of Golkonda Fort. Students were impressed with the architectural beauty and construction of the same.
Technical details about the Company	Enclosed / Not enclosed
Comments	Nil

Accomp. Staff	Tutor	HOD
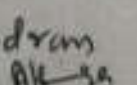
Hridya P

Peter Jobe

Athira Rajendran

Margaret Abraham

Hridya P

Peter Jobe

Athira Rajendran

Margaret Abraham

INDUSTRIAL VISIT REPORT

S8 CE (2019-2023 Batch)

On 11th & 12th of march, 62 final year students of civil engineering department along with 4 faculty members of Vimal Jyothi Engineering College, Kannur, visited Golkonda Fort in Hyderabad and Wonderla-Banglore as a part of our industrial visit.

Everyone coming for the industrial visit gathered at Kannur railway station at 9:00 pm. The train to kacheguda arrived the station at 10:05 pm. The train travel till the destination took almost 26 hours. The train journey through various places gave us the picture about the various type of soil, climatic conditions and the way the buildings were built uniquely to cope up with the climate of that region. On the next day (09/03/2023) by 11:50 pm we reached the destination, all of us were taken to the hotel room.

The 1st day of the industrial visit started at 9:00 am, after the breakfast we headed towards the "Ramoji film city", Ramoji Film City is an integrated film studio facility located in Hyderabad, India. Spread over 1,666 acres, it is the largest film studio complex in the world and as such has been certified by the Guinness World Records. It was established by Telugu media tycoon Ramoji Rao in 1996. After a full day spent at the Ramoji film city, we returned back.

The next destination as per the schedule was the Lumbini park, but due to some issues only few students were able to make out to the destination.

The final destination scheduled for the day was at "Birla mandir", Made of 2,000 tons of pure white marble imported from Rajasthan, Birla Temple in Hyderabad is a unique mix of Dravidian, Rajasthani, and Utkala styles. Birla Mandir presents the best viewpoints in the city, providing a clear view of Hussain Sagar Lake, Hyderabad, and Secunderabad. After visiting the Birla Mandir we returned back to the hotel for dinner.

2nd day started at 9:00 am, after the breakfast we headed to the first destination of the day, The "Charminar" - Built in Indo-Islamic architectural style, Charminar is a limestone, granite, pulverised marble and mortar structure with four embellished minarets attached to the four arches. Only a year after the city of Hyderabad was founded in 1591, the construction of the Charminar was concluded. Legend has it that Muhammad Quli Qutb Shah built an underground tunnel connecting Charminar to Golconda Fort as an escape route in case of a siege. Since the Mecca Masjid was near the Charminar we visited it too.

After visiting Charminar we headed towards the "Salar Jung Museum" - the Salar jung Museum has a unique distinction as the third largest museum in India and has a worldwide

fame for its biggest one-man collections of antiques. It is widely known in India for its prized collections dating back to different civilizations.

The next place we visited was the industry as a part of the industrial visit – The "Golkonda Fort" - Golconda was the principal capital of the Qutub Shahi kings. The inner fort contains ruins of palaces, mosques and a hill top pavilion, which rises about 130 meters high and gives a bird's eye view of other buildings. The way of construction was done in a way the the fort was constructed from the top and progressed downwards, spend some quality time taking memorable pictures and enjoyed the natural beauty of the fort. After the dinner we headed towards the railway station to board the train to banglore where we went to the wonderla the next day.
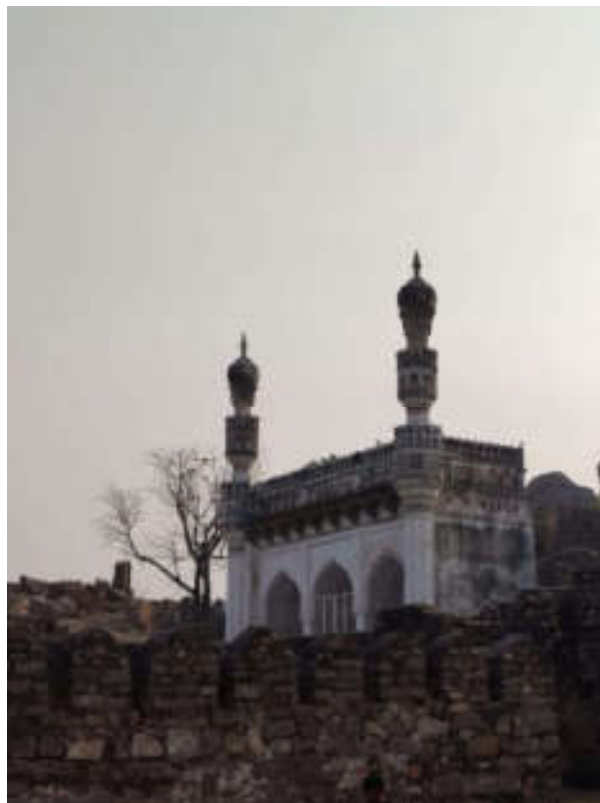
On the 3rd day of the industrial visit, we reached Bangalore by 9:35 am. Everyone boarded in the bus arranged for us to take towards the wonderla. By 12:00 pm we reached the 2nd IV place. Spend a quality time there and returned back to Bangalore railway station at 8:00 pm. The train to Kannur was at 9:45 pm

Our IV was completely successful and all of us got to explore and gain knowledge in different perspectives.

INDUSTRIAL VISIT REPORT

SEMESTER SIX

B.TECH CIVIL ENGINEERING STUDENTS

From

09.03.2023

To

12.03.2023

EXPLORING GOA

Event Proposal Form

1	Event Type and Name	Industrial visit
2	Date and Time	09th March 2023 to 11th March 2023
3	Participants/ Audience	S6 CE A
4	Venue	Goa
5	Objectives	To make the students aware of real time applications of civil structures
6	Expected Outcomes	The student will be able to know about the real world applications of Civil Structures
7	Connected PEOs/POs /COs	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO12
8	Resource Requirements	NIL
9	Any other Relevant information	NIL
10	Responsible Persons	Proposal prepared by: Ms Saneesh K Ms Anuragi P Recommended By: Dr. Biju Mathew, HOD CE

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPT:OF CIVIL ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Class Details: **Dates of Visit**: From 09/03/2023 To 12/03/2023

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
CIVIL ENGINEERING	3RD YEAR / S6	41	38 (19 BOYS,19GIRLS)

Reason for students who are not visiting :	PERSONAL REASONS

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
FRESH N NICE FOODS	**Mr.Tom Santhosh,Propitor Fresh N Nice Foods**	Ph: +91 8805966960 | +91 9421153149 Gmail:freshnnicefoods@gmail.com

Industry address for communication:	No. C 15, Phase 1 A Plot Verna Industrial Estate Verna 403722 Goa

Faculty Details:

Accompanying staff	Designation	Contact number
LOGI N BOBY RINNET FRANSIS	AP CE AP CE	8086564842 9497420192

Transport Details:

Mode of Transport	Name of the Travel and Address
By Train	Beauty Holidays Irikkur,Kannur

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification& Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter	Yes (Freshrise Foods)	
2.	Students Name List Signed	✓	
3.	Class Cancellation Circular	A	
4.	Schedule of visit Signed by Accompanying Staff, PC/FA,HOD	✓	
5.	Hostel Permission form	✓	
6.	Permit copy or Railway Reservation Details		
7.	Parent's declaration form if it is Industrial Tour	✓	
8.	Previous Industrial Visit Report submission	NB	

Signature of Class Representatives/IV Co-ordinators with name: Vishnu das
Suryashankar

Tutor	HOD	Approved / Not Approved
	28/2/90	Principal

SCHEDULE OF VISIT

(May be attached separately if it is Industrial Tour)

Starting Place: Vimal Jyothi Engineering College

Reaching Place: Goa

Approximate Traveling Distance (in KM): 1000 KM

By Jeoia By Taain

Departure time : 10 : 30 AM 09/03/23

Reaching time at company : 11: 00 AM 10/03/23

Lunch time : 01: 00 PM 10/03/23

Departure time from company : 03: 00 PM 10/03/23

Arrival time at college : 10 : 00 AM 12/03/23

Amount collected from individual student (including Conveyance/ Boarding): 4600/-

Total amount collected from the student's: 1,70,200

Accomp. Staff	Tutor	HOD 28/2/2	Principal 07/03/23
LOGI N BOBY	Anuragi P		
RINNET FRANCIS			

BEAUTY HOLIDAYS

BORN TO EXPLORE THE WORLD...!

KANNUR, THALIPARAMBA, IRIKKUR
CONTACT US : +91 9567380700
+91 9567614615

GOA
(2 DAYS & 3 NIGHT)

DATE	TIME	ACTIVITIES
09/03/2023	~~07:30 PM~~ 10:30 Am	DEPARTURE FROM ~~COLLEGE~~ Kannur Railway Station
DAY 1 10.03.2023	09:00 AM	AFTER HAVING BREAKFAST LEAVE FOR SIGHTSEEING • ANJUNA BEACH • KALLANGOD BEACH • BAGA BEACH DINNER
DAY 2 11.03.2023	09:30 AM	AFTER FRESHUP AND BREAKFAST • AGUDA FORT • OLD GOA CHURCH • COLVA BEACH DINNER Departure from madgon
12.03.2023	08:30 Am	BACK TO COLLEGE

INCLUSION

- TOUR MANAGER
- ACCOMODATION IN QUADRAPLE SHARING
- ENTRY TICKETS
- DAILY THREE TIME FOOD
- ALL TOLL TAXES, PARKING CHARGES, DRIVER ALLOWANCES

Saneeshik
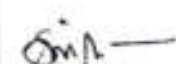
28/2/2022

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
CLASS CANCELLATION CIRULAR

Course & Department: DEPARTMENT OF CIVIL ENGINEERING

Date of class cancellation: 10/03/2023

Purpose Industrial Visit

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	09:00 AM – 10:00 AM	DESIGN OF HYDRAULIC STRUCTURES	MS MARGARET ABRAHAM	
2.	10:00 AM – 11:00 AM	ENVIRONMENTAL ENGINEERING	MS ATHIRA RAJENDRAN	
3.	11:10 AM – 12:10 PM	COMPREHENSIVE COURSE WORK	DR VIBHOOSHA MP	
4.	01:00 PM – 02:00 PM	ADVANCED CONCRETE TECHNOLOGY	MS HRIDYA P	
5.	02:00 PM – 03:00 PM	ENVIRONMENTAL ENGINEERING	MS ATHIRA RAJENDRAN	
6.	03:10 PM – 04:10 PM	INDUSTRIAL ECONOMICS AND FOREIGN TRADE	MS SINAI MICHEL	
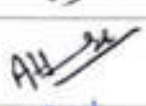
28/2/2023

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
CLASS CANCELLATION CIRULAR

Course & Department: DEPARTMENT OF CIVIL ENGINEERING

Date of class cancellation: 09/03/2023

Purpose Industrial Visit

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	09:00 AM – 12::10 PM	TRANSPORTATION ENGINEERING / CIVIL ENGINEERING SOFTWARE LAB	MR SANEESH K / MR ABHIJATH T / MS ANURAGI P / MR PETER JOBE	
2.	01:00 PM – 02:00 PM	ENVIRONMENTAL ENGINEERING	MS ATHIRA RAJENDRAN	
3.	02:00 PM – 03:00 PM	COMPREHENSIVE COURSE WORK	DR VIBHOOSHA MP	
4.	03:10 PM – 04:10 PM	ADVANCED CONCRETE TECHNOLOGY	MS HRIDYA P	

28/2/2023

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
HOSTEL PERMISSION FORM

Date: 09/03/2023

Course & Department: CIVIL ENGINEERING

Date of permission: 09/03/2023-12/032023

Purpose INDUSTRIAL VISIT

Start time: 10:00 AM   **Return time:** 10:00 PM

Hostel: Boys

Sl.No	PRN NUMBER	Name	Signature	
1.	VML20CE020	ANIRUDH C		7033
2.	VML20CE008	ADITHYA RAJ		6967
3.	VML20CE007	ADITHYANKUMAR MT		7187
4.	VML20CE005	ABINAV MK		7307
5.	VML20CE074	SURYASANKAR S		7014
6.	VML20CE055	MUHAMMED MARZOOK		7079
7.	VML20CE051	KIRANDEV KM		6909
8.	VML20CE009	AFRAS ABDULLA		7315
9.	VML20CE053	MUHAMMAD RIZWAN		6957

Permitted / not permitted

Tutor   HOD   28/2/2023   HOSTEL WARDEN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
HOSTEL PERMISSION FORM

Date:09/03/2023

Course & Department: CIVIL ENGINEERING
Date of permission: 09/03/2023-12/03/2023
Purpose INDUSTRIAL VISIT
Start time: 10:00 AM   Return time: 10:00 AM
Hostel: Girls

Sl.No	Roll No.	Name	Signature
1.	VML20CE024	ANNAPURNA P	
2..	VML20CE026	APARNA CHANDRAN PP	
3.	VML20CE037	AYONA BIJU	
4.	VML20CE038	BASUDHA VJ	
5.	VML20CE040	DEVIKA RAJ	
6.	VML20CE046	HRIDYA K	
7.	VML20CE060	P REVATHI	
8.	VML20CE069	SEBA MATHEW	
9.	VML20CE071	SHAHILA KS	
10	VML20CE052	MEGHA.C.K	

Permitted / not permitted

Tutor

HOD 28/2/2023

Dr. Valsamma Joseph
HOSTEL WARDEN

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department: CIVIL ENGINEERING

Purpose: Industrial Visit/ Tour

1. Visiting Place: Goa

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying
1	BEAUTY HOLIDAYS IRIKKUR,KANNUR Ashbeer : +91 9567380700	ROYALE ASSAGAO RESORT GOA,INDIA PIN : 403507	2

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance): 4600/-

Total amount collected from the student's: 1,70,200

28/2/2023

LIST OF STUDENTS COMING FOR IV S6-CEA

STUDENT NAME	PRN NUMBER	Ph.Number	Guardian number	SIGNATURE
ABHIJITH M	VML20CE002	8301017921	9495513921	
ABHINAV M K	VML20CE005	6238930704	9947211799	
ABHISHEK KRISHNA A	VML20CE006	9778252329	9447402123	
ADITHYAKUMAR MT	VML20CE007	7736426147	9446728366	
ADITHYA RAJ	VML20CE008	8590045447	9526587192	
AFRAS ABDULLA	VML20CE009	9072450270	9447667707	
AISHA NUHA	VML20CE011	8075258589	9387451452	
AKASH KV	VML20CE012	6235863390	9400212004	
ANAKHA MARY MATHEW	VML20CE017	9656608404	9745219104	
ANIRUDH C	VML20CE020	9747027909	9447889307	
ANNAPURNA P	VML20CE024	8547482698	9605094698	
ANURAG AK	VML20CE025	7025058175	9947446826	
APARNA CHANDRAN P P	VML20CE026	8304031816	9847523081	
APARNA MOHANAN	VML20CE028	9946160084	8129244464	
ARCHANA K	VML20CE030	9074796631	8547569128	
ASWATH DEV P NAMBIAR	VML20CE034	6282357349	9446155814	
AYONA BIJU	VML20CE037	9048416191	9447440879	
BASUDHA V J	VML20CE038	8606137593	9847930198	
DEVIKA RAJ	VML20CE040	9072871323	9446771323	
HRIDYA K	VML20CE046	7902314443	6282946472	
KIRANDEV K M	VML20CE051	9526883498	9526883497	
MEGHA CK	VML20CE052	8921000911	9947535222	
MUHAMMAD RIZWAN	VML20CE053	9633156162	9567158005	
MUHAMMED MARZOOK	VML20CE055	8078034785	9446909786	
NAVANEETH P VINOD	VML20CE056	9495256832	7,306,114,997	
P REVATHI	VML20CE060	9567043360	9387063128	
RIFA	VML20CE061	9778397435	8590482973	
SARANG A	VML20CE066	9496429361	9495722936	
SAURAV SUNIL	VML20CE068	8921042682	9847095505	
SEBA MATHEW	VML20CE069	8590389343	8281775572	
SHAFNA C	VML20CE070	8137058004	7019838263	
SHAHILA K S	VML20CE071	8590574477	9744630793	
SURYASANKAR S	VML20CE074	6282290226	9400074546	
TEENA JIJO	VML20CE075	9495425531	9446838331	
THEJA DINESH	VML20CE077	9778168805	9446678841	
VENI K	VML20CE079	6282656535	9747272363	
VISHNUDAS P V	VML20CE081	9562483676	9747118799	
ASWIN KRISHNA	I.VML20CE084	9747931141	9400432413	

28/2/2023

APPLICATION FOR BULK BOOKING.

from.

Adithya Raj
Kili Kothappara (H)
Maraduikkara (po)
Kasargod (dist)

Phone No. 859804 15417
mail ID adithyashene@gmail.com

The Chief Reservation Supervisor,
Southern Railway, KANNUR

Sub: Permission for Bulk Booking for ....79............... persons

Sir,

Kindly give permission for bulk booking for ....79........ ....
persons as we are proceeding in a group for ___Industrial visit___ ....
purpose . List of passengers is attached herewith.

Sl. No	Train No.	Train Name	Date	Class	From	To
1	22114	KOCHUVELI - MUMBAI LTT SF EXPRESS	9/3/23	SL	KANNUR (CAN)	MADGAON (MAO)
2	02198	Jabalpur - Coimbatore SF special	12/3/23	SL	Madgaon (MAO)	kannur (CAN)
3						
4						
5						

Thanking you,

Place : KANNUR

Date : /02/23

Yours faithfully

Signature

Muhammad Rizwan 2 days ago
to freshnnicefoods ∨   ↰ ⋮

e 6th Semester students of civil department(2020-24batch) ,Vimal
othi Engineering college chemperi ,Kannur, planning an Industrial visit
Goa.As a part of their industrial visit, they wish to visit your reputed
dustry.Total 75 students accompanied by 4 staff members are
cluded in this trip.The proposed visit date is 10th March 2023.We
quest you to permit this industrial visit in your industry.Kindly
ommunicate your authorization(convenient time) as a reply to this
nail.

T **Tom Santosh** 12:14 pm
to me ∨   ↰ ⋮

rmission for industrial visit is granted for 75 students and 4 staffs
10th March. Your time schedule will be after 11.30 am and plan
ccordingly. Since you are requested, you will be charged 50/students
d freshko bottles will be complimentary.

ow quoted text

From,

    Prema M

    Parent of Annapurna P   (VML 20CE024)

To,

    HOD

    civil Department

    VJEC

Subject: Willing to come as guardian

Respected Sir,

        I Prema M, mother of Annapurna.P. I am willing to come as guardian for IV of civil SG A

Date: 28/07/23

Place: Vadakara

Your's faithfully

Prema.M

From.
   SG Civil

Date: 23/02/2023

To,
   Principal
   VJEC

Subject: Request for IV permission.

Respected sir,

   As per the sanctioned proposal from the HOD and
oral permission from the principal [attached], we
planned to book the tickets for 12202 Kochuveli
Mumbai Ltt Express, scheduled to depart from kannur
at 17:55 pm on 17/2/23, As Enough tickets were
available at that time. But when we reached the
railway station at kannur, the tickets were not
available due to bulk booking from another dept
of VJEC. As the train ticket is available only fo
train number 22114 Kochuveli Mumbai Ltt Express,
we booked it for the date 09/03/2023 at 10.00 Am.
believing that the college authority will approve
the same.

The documents regarding the availability of ticket

are attached with the letter.

As the tutors demanded to compensate the loosing working day, we are ready to attend additional classes on holidays to complete the syllabus.
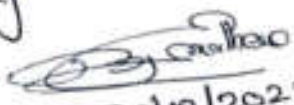
Please kindly consider this as our humble request and there by provide us the initial approval for the same for the further processing of the industrial visit.

Yours Faithfully

S6 civil students

Recommended
Saneesh k (senior Faculty advisor)
27/04/23

S_3 result : $\frac{30}{83}$ = 36

S_4 result : $\frac{45}{83}$ = 54 %

may be approved.
03/02/2023

23/2/2023

May be approved
HOD CE 24/02/23

May be considered
Jumna P
ECE

Laly Jams
HOD EEE

24/12/2022
HOD/EEE

May be considered.

Arya
24/2/23

Accompanying Staff.
4. Logi N Roby   1. Abhijath Ip
2. Rinnel Franis   3. Siji Thomas
3. Sinci michel - 18

22114 Kochuveli Mumbai Ltt SfExpress

| | 10:00 | CAI |
| | 17:05 | MAC |

M · T · View Time Table ›   7h 5n

SL ₹377	3A ₹945	2A ₹1
AVAILABLE-0055	AVAILABLE-0010	AVAILA
⊙ 16 hrs ago	⊙ 1 day ago	⊙ 1 day
Book Now	Book Now	Bc

View 6 day availability ›

12202 Kochuveli Mumbai Ltt Garib Rath Express

| | 17:55 | CAN |
| | 01:05 | MAO |

S · · w T · · View Time Table ›   7h 10m

CC ₹620	3A ₹740
RLWL3/WL3	RAC 7/RAC 7
⊙ 16 hrs ago	⊙ 1 day ago

16346 Trivandrum Central Mumbai Ltt Netravati Express

19:35
04:35

S M T W T F S   View Time Table ›

SL ₹347

3A ₹895

RLWL19/WL17

AVAILABLE-0006

🕑 16 hrs ago

🕑 2 days ago

97% (High Chance)

Book Now

Book Now

View 6 day availability ›

16338 Ernakulam Okha Express

01:50
10:50

T   S   View Time Table ›

SL ₹347

3A ₹895

PQWL45/WL42

PQWL7/WL7

🕑 16 hrs ago

🕑 2 days ago

97% (High Chance)

Book Now

Book Now

**12202 Kochuveli Mumbai Ltt
Garib Rath Express**

17:55 CAN
01:05 MAO

S T View Time Table

7h 10m

CC ₹620

3A ₹740

RLWL3/WL3
⊙ 16 hrs ago

RAC 7/RAC 7
⊙ 1 day ago

93% (High Chance)

Book Now

Book Now

View 6 day availability ›

**12617 Ernakulam Hazrat
Nizamuddin Mangala
Lakshadweep Sf Exp**

18:42 CAN
03:00 MAO

S M T W T F S View Time Table

8h 18m

SL ₹377

3A ₹945

2A ₹132

RLWL17/WL12
16 hrs ago

RLWL8/WL8
⊙ 2 days ago

RLWL1/W
⊙ 2 days agc

(High Chance)

Book Now

Book Now

Book

View 6 day availability ›

**16346 Trivandrum Central
Mumbai Ltt Netravati Express**

19:35 CAN
04:35 MAO

INDUSTRIAL VISIT, BROCHEURE
[2020-24 CE A]

Scheduled	Planned
10th morning 6	9th eveni
12th eveniy	12th morni

College   - Goa

    2 day / 3 night,

March 9th, 2023, —— via — Nethavolhi Express 8.30 pm

     → Train Journey, Kannur to Madgaon

March 10th, 2023 —— morning

     → Arriving at Madgaon

Day 1   Goa

   After breakfast, Move to sightseeing.

   1. Old Goa Church

     Lunch proceed

   2. Calangute beach

   3. Baga beach

   4. Shopping

   5. Nio Goa (National Institute of Occeanography)
Dinner and Stay   —Industrial visit

Day 2   Goa

   After breakfast, proceed, Move to sightseeing

   1 Aguada fort

   2. Anjuna beach   Start — 9/3/23

    Lunch proceed   — night

            from — CAN

   3. Colva beach

   4 Dona Paula beach

   Dinner

overnight return journey (By Train)

→ Return to Kannur (By Train) → evening by 02:1↑
Jablpur coimbatore
6 plc 7s.am

• Return to Kannur by March 11th
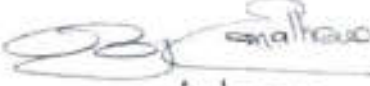
• Arriving to Kannur on March 12th

Number of Students — ~~18~~ 37 (both A & ~~B~~)

Rupees per head — Appro~ 4500/student

Accomodative staff — Logi N boby, Rinnet Francis, Surini Michael
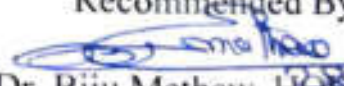
Travels — Beauty Holidays ↓2 +2
irikkur

snalhauo
. 17/02/2023

17/2/23   Tutor
SGCE-A

Event Proposal Form

1	Event Type and Name	Industrial visit
2	Date and Time	09th March 2023 to 11th March 2023
3	Participants/ Audience	S6 CE B
4	Venue	Goa
5	Objectives	To make the students aware of real time applications of civil structures
6	Expected Outcomes	The student will be able to know about the real world applications of Civil Structures
7	Connected PEOs/POs /COs	PO1, PO2, PO3, PO5, PO8, PO9, PO10, PO12
8	Resource Requirements	NIL
9	Any other Relevant information	NIL
10	Responsible Persons	Proposal prepared by: Mrs Sigi Thomas Mr Abhijath I P	Recommended By: Dr. Biju Mathew, HOB CE 12/2023

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPT: OF CIVIL ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM

Class Details: S6CE B

Dates of Visit: From 09/03/2023 To 12/03/2023

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
CIVIL ENGINEERING	3RD YEAR / S6	42	37 ✓

Reason for students who are not visiting :	PERSONAL REASONS

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
FRESH N NICE FOODS ✓	Mr. Tom Santhosh, Propitor Fresh N Nice Foods	Ph: +91 8805966960 | +91 9421153149 Gmail:freshnnicefoods@gmail.com
Industry address for communication:	No. C 15, Phase 1 A Plot Verna Industrial Estate Verna 403722 Goa	

Faculty Details:

Accompanying staff	Designation	Contact number
ABHIJATH I P SINAI MICHAEL	AP CE AP CE	9747233264 9656438774

Transport Details:

Mode of Transport	Name of the Travel and Address
By TRAIN ✓	

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF   ENGINEERING
INDUSTRIAL VISIT / TOUR APPLICATION FORM Class Details:

Dates of Visit: From 9/3/23 To 12/3/23

Course/Dept.	Year/Semester	Total strength of the class	No. of Students visiting
CIVIL ENGINEERING	3rd year/6th sem	42	37
Reason for students who are not visiting :		PERSONAL REASONS	

Industry Details:

Name of the Industry	Contact person @Industry	Contact number @Industry
Industry address for communication:		

Faculty Details:

Accompanying staff	Designation	Contact number
ABHIJATH I P	AP CE	9747233264
SINAI MICHAEL	AP CE	9656438774

Transport Details:

Mode of Transport	Name of the Travel and Address
By Train	

Check List:

S.No.	Documents	Dept. IIPC Coordinator Verification & Signature	Remarks & Signature of IIPC Coordinator
1.	Industry Permission Letter	Yes (Freshanniroood)	
2.	Students Name List Signed	✓	
3.	Class Cancellation Circular	✓	
4.	Schedule of visit Signed by Accompanying Staff, PC/FA,HOD	✓	
5.	Hostel Permission form	✓	
6.	Permit copy or Railway Reservation Details		

7.	Parent's declaration form if it is Industrial Tour	✓
8.	Previous Industrial Visit Report submission	NO

Signature of Class Representatives / IV Co-ordinators with name: ABHINAND K

ALAN JOSHY

Tutor	HOD	
	28/12/2023	Approved / Not Approved Principal

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI

detailed] Attached
shedule}

SCHEDULE OF VISIT
(May be attached separately if it is Industrial Tour)

Starting Place:VIMAL JYOTHI ENGINEERING COLLEGEReaching Place:GOA
Approximate Traveling Distance (in KM):1000KM

Departure time   :10.30AM 09/03/23   — By Train
Reaching time at company   :11.00AM 10/03/23
Lunch time   :1.00PM 10/03/23
Departure time from company   :3.00PM 10/03/23
Arrival time at college   :10.00AM 12/03/23
Amount collected from individual student (including Conveyance/ Boarding): 4600/-
Total amount collected from the student's:170200

Accomp. Staff   Tutor   HOD 28/2/   Principal

Sigi Thomas.
Tutor.

BEAUTY HOLIDAYS

BORN TO EXPLORE THE WORLD...!

KANNUR, THALIPARAMBA, IRIKKUR
CONTACT US : +91 9567380700
+91 9567614615

GOA
(2 DAYS & 3 NIGHT)

DATE	TIME	ACTIVITIES
9/03/2023	~~07:30 PM~~ 10:30pm	DEPARTURE FROM ~~COLLEGE~~ Kannur Railway Station
DAY 1 10/03/2023	09:00 AM	AFTER HAVING BREAKFAST LEAVE FOR SIGHTSEEING • ANJUNA BEACH • KALLANGOD BEACH • BAGA BEACH DINNER
DAY 2 11-03-204	09:30 AM	AFTER FRESHUP AND BREAKFAST • AGUDA FORT • OLD GOA CHURCH • COLVA BEACH DINNER
12.03.2023	08:30pm	BACK TO COLLEGE

INCLUSION

- TOUR MANAGER
- ACCOMODATION IN QUADRAPLE SHARING
- ENTRY TICKETS
- DAILY THREE TIME FOOD
- ALL TOLL TAXES, PARKING CHARGES, DRIVER ALLOWANCES

28/2/2023

EXCLUSION

- ANYTHING NOT MENTIONED IN TOUR PACKAGE
- EXTRA ENTRY TICKET
- ANY OTHER EXPENSES INCURRED DUE TO CONTIGENCIES

FOOD

1. BREAKFAST
- APPAM, PURI
- PUTTU, IDIYAPPAM
- IDLI, CHAPATHI, DOSA

2. LUNCH
- GHEE RICE & CHICKEN
- BIRIYANI

3. DINNER
- POROTTA, CHAPATHI, CHICKEN CHILLY
- GHEE RICE WITH CHICKEN CURRY
- FRIED RICE (CHICKEN WITH EGG)
- BIRIYANI
- POROTTA, ALFAHAM

MAKE MEMMORIES ALL OVER THE WORLD...!

Instagram : beauty_holi_days   www.asbeer@beauty.com

From,

    Jillsama MJ

    Parent of hilwin (LVML_80CE 086) (PTA)

To ,

    HOD

    civil department VJEC

subject: willing to come as guardian

Respected sir,

    I Jilliamma mother of hilwin. Iam willing to come as a guardian for IV of civil B S5

yours Faithfully

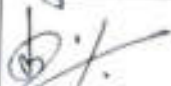   Jilsamma . M. J
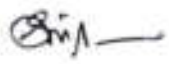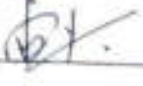
Date: -

Place :

28/2/20

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
CLASS CANCELLATION CIRULAR

Course & Department: DEPARTMENT OF CIVIL ENGINEERING
Date of class cancellation: 16/03/2023 , THURSDAY
Purpose Industrial Visit

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1.	09:00 AM – 10:00 AM	INDUSTRIAL ECONOMICS AND FOREIGN TRADE	DR SAATHAPPAN	
2.	10:00 AM – 11:00 AM	DESIGN OF HYDRAULIC STRUCTURES	MS SINAI MICHEL	
3.	11:10 AM – 12:10 PM	ADVANCED CONCRETE TECHNOLOGY	MS RINNET FRANCIS	
4.	01:00 PM – 02:00 PM	ENVIRONMENTAL ENGINEERING	MS SIGI THOMAS	
5.	02:00 PM – 03:00 PM	STRUCTURAL ANALYSIS - 2	MS ANITA JOSE	
6.	03:10 PM – 04:10 PM	ADVANCED CONCRETE TECHNOLOGY	MS RINNET FRANCIS	

28/2/2023

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI

DEPARTMENT OF CIVIL ENGINEERING

CLASS CANCELLATION CIRULAR

Course & Department: **DEPARTMENT OF CIVIL ENGINEERING**
Date of class cancellation: **10/03/2023**
Purpose **INDUSTRIAL VISIT**

Sl.No	Period	Subject	Name of the Staff & Designation	Signature
1	9.00AM-10.00AM	ENVIRONMENTAL ENGINEERING	MS SIGI THOMAS	
2	10.00AM-11.00AM	ADVANCED CONSTRUCTION TECHNOLOGY	MS RINNET FRANCIS	
3	11.10AM-12.10PM	COMPREHENSIVE COURSE WORK	MS ASHWATHI K	
4	1.00PM-2.00PM	CEL332/CEL334	MR LOGI N BOBY/MS ANITA JOSE	
5	2.00PM-3.00PM	CEL332/CEL334	MR LOGI N BOBY/MS ANITTA JOSE	
6	3.10PM-4.10PM	CEL332/CEL334	MR LOGI N BOBY/MS ANITTA JOSE	

28/12/2023

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
HOSTEL PERMISSION FORM

Date: 09/03/2023

Course & Department: CIVIL ENGINEERING
Date of permission: 09/03/2023-12/032023
Purpose INDUSTRIAL VISIT
Start time: 8:00 AM   Return time: 10:00 PM
Hostel: Boys

Sl.No	PRN NUMBER	Name	Signature	
1.	VML20CE014	ALAN JOSHY		7327
2.	VML20CE059	P JITHIN CHANDRA		7154
3.	VML20CE073	SIDHARTH D		6975
4.	VML20CE080	VIDHU KRISHNA		7209
5.	VML20CE067	SARANG C K		7019
6.	VML20CE078	THEJAL PRASANTH		7056
7.	VML20CE042	FELIX SABI		6881
8.	VML20CE039	CHRISTY JOSE		7348
9.	LVML20CE086	LITWIN AUGUSTIA XAVIER		7987
10.	LVML20CE083	AJAY JOHN		7116

Permitted / not permitted

Tutor   HOD 28/2/2023   (P) HOSTEL WARDEN

Sig. Thomas.
6b CEB Tutor.

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI

DEPARTMENT OF CIVIL ENGINEERING
HOSTEL PERMISSION FORM

Date:09/03/2023

Course & Department: CIVIL ENGINEERING
Date of permission: 09/03/2023-12/03/2023
Purpose INDUSTRIAL VISIT
Start time: 10.00AM   Return time:10.00AM

Hostel: Girls

Sl.No	Roll No.	Name	Signature
1	VML20CE031	ARCHANA SAJEEVAN	Archana S
2	VML20CE050	KEERTHANA K CHANDRAN	
3	VML20CE073	SREELAKSHMI GOKULDAS P K	Sreela

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
BOARDING & LODGING ARRANGEMENT DETAILS

Course & Department: CIVIL ENGINEERING
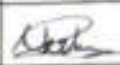
Purpose: Industrial Visit/ Tour

1. Visiting Place: Goa

Sl.No	Name of the Travels, Address & Contact person	Name of the Hotel, Address & Contact person	No. of days for staying
1	BEAUTY HOLIDAYS IRIKKUR,KANNUR Ashbeer : +91 9567380700	ROYALE ASSAGAO RESORT GOA,INDIA PIN : 403507	2

Amount collected from individual student for the particular place (including Boarding/ Lodging/ Conveyance): 4600/-

Total amount collected from the student's: 1,70,200

28/2/2023

INDUSTRIAL VISIT (S6 CE B)

Si No	Student name	PRN No	PhoneNo	Guardian No	Sign
1	Abhay K P	VML20CE001	7994876390	9947753558	
2	Abhijith Surendran	VML20CE003	9895757464	9746206375	
3	Abhinand K	VML20CE004	8606742100	9562001043	
4	Akshath	VML20CE013	9188452491	9946248808	
5	Alan Joshy	VML20CE014	8590195670	9446735379	
6	Amain P	VML20CE015	9207671151	9946327405	
7	Amith N	VML20CE016	6282937918	9496238967	
8	Anamika	VML20CE018	9037105248	9745993244	
9	Ananya K V	VML20CE019	8590765856	9947012651	
10	Anjali M M	VML20CE022	7736759239	9048165082	
11	Anjana K N	VML20CE023	9037949421	8547285114	
12	Aparna Praven	VML20CE029	9778116323	9961376257	
13	Archana Sajeevan	VML20CE031	7736547722	8943364922	
14	Aswanth Baskaran V	VML20CE033	9567889621	9048961820	
15	Athira Ajith	VML20CE035	8139042484	8156992454	
16	Athulraj K P	VML20CE036	7034837834	9497277146	
17	Christy Jose	VML20CE039	7012190049	8547944844	
18	Felix Sabi	VML20CE042	9497192173	9497059414	
19	Gokul Haridas	VML20CE044	9061402214	7909135868	
20	Hrithuvarna Anil	VML20CE047	7012555876	9947054756	
21	Jain John	VML20CE048	7510487609	9048483609	
22	Keerthana K Chandran	VML20CE050	8113991399	8848391127	
23	Niveditha T V	VML20CE057	7593801284	9562812112	
24	Parvathi K C	VML20CE058	7736475220	9497600778	
25	P Jithin Chandra	VML20CE059	7736812789	9496785583	

26	Safa Choottachi Puthiyapurayil	VML20CE063	9048000940	9048000940	
27	Saloniya K	VML20CE064	9188331340	9895523299	
28	Sanjana Sumod	VML20CE065	9778159044	4561076887	
29	Sarang C K	VML20CE067	8138062295	9495415218	
30	Siddarth D	VML20CE072	8304903083	9400973390	
31	Teena Vinod	VML20CE076	8111943284	8921424061	
32	Thejal Prasanth	VML20CE078	6238673226	9946574448	
33	Vidhu Krishna	VML20CE080	9400878285	9495282085	
34	Yuvaraj Ravendran	VML20CE082	9778032228	9074052534	
35	Litwin Augustia Savier	LVML20CE086	7594834242	9496267976	
36	Ajay John	LVML20CE083	9633108531	9747272961	
37	Sreelakshmi	VML20CE073	7510406306	9947347832	

28/2/2023

from.

Adithya Raj
Kili Kothippara (H)
Maradukkam (po)
Kanngad (A.i)

Phone No. 85920-84417
mail ID adithyashone@gmail.com

the Chief **Reservation** Supervisor,
Southern Railway, KANNUR

Sub: Permission for Bulk Booking for ------------ 79 ------------ persons

Sir,

Kindly give permission for bulk booking for ------------ 79 ------------
persons as we are proceeding in a group for ------ Industrial Visit ------
purpose . List of passengers is attached herewith.

Sl. No	Train No.	Train Name	Date	Class	From	To
1	22114	KOCHUVELI - MUMBAI LTT SF EXPRESS	9/3/23	SL	KANNUR (CAN)	MADGAON (MAO)
2	02198,	Jabalpur - Coimbatore SF special	12/3/23	SL	Madgaon (MAO)	kannur (CAN)
3						
4						
5						

Thanking you,

Yours faithfully,

Place: KANNUR

Date: /02/23

Signature

For official use only

Permitted bulk booking for ------------ persons

Signature
Chief Reservation Supervisor, S. Railway, Kozhikode.

Page 66 of 80

Muhammad Rizwan 2 days ago
@freshnnicefoods

...e 6th Semester students of civil department(2020-24batch) ,Vimal ...othl Engineering college chemperi ,Kannur, planning an industrial visit ...Goa.As a part of their industrial visit, they wish to visit your reputed ...dustry.Total 75 students accompanied by 4 staff members are ...cluded in this trip.The proposed visit date is 10th March 2023.We ...quest you to permit this industrial visit in your industry.Kindly ...ommunicate your authorization(convenient time) as a reply to this ...mail.

Tom Santosh 12:14 pm
to me

...ermission for Industrial visit is granted for 75 students and 4 staffs ...n 10th March. Your time schedule will be after 11.30 am and plan ...ccordingly. Since you are requested, you will be charged 50/students ...nd freshko bottles will be complimentary.

...how quoted text

From,
    S6 Civil.

Date: 23/02/2023

To,
    Principal
    VJEc

Subject: Request for IV permission.

Respected sir,

As per the sanctioned proposal from the HOD an oral permission from the principal [attached], we planned to book the tickets for 12202 Kochuveli Mumbai Ltt Express, scheduled to depart from kannur at 17:55 pm on 17/2/23, As enough tickets were available at that time. But when we reached the railway station at kannur, the tickets were not available due to bulk booking from another dept of VTEc. As the train ticket is available only for train number 22114 Kochuveli Mumbai Ltt Express, we booked it for the date 09/03/2023 at 10:00 Am, believing that the college authority will approve the same.

The documents regarding the availability of ticket are attached with the letter.

As the tutors demonstrated to compensate the loosing working day, we are ready to attend extra classes on holidays to complete the syllabus.

Please kindly consider this as our humble request and there by provide us the initial approval for the same for the further processing of the industrial visit.

Yours faithfully

SG civil students

Recommended
Sangeeth K (senior Faculty advisor)
27/02/23

$\frac{3}{3}$ Result : $\frac{30}{83}$ = 36

S_4 Result: $\frac{45}{83}$ = 54 %

May be approved.
Rao
03/02/2023

23/2/2023

May be approved
24/02/2023

May be considered
ECE

HOD CSS

11/02/2023

May be considered
Soya
24/2/23

Accompanying staff.
1. Abhishek IP
2. Giji Thomas
3. Sam michel

22114 Kochuveli Mumbai Ltt Sf Express

10:00   CAN
17:05   MAO

M   T   View Time Table ›   7h 5n

SL ₹377	3A ₹945	2A ₹1
AVAILABLE-0055	AVAILABLE-0010	AVAILA
⊙ 16 hrs ago	⊙ 1 day ago	⊙ 1 day
Book Now	Book Now	Bc

View 6 day availability ›

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12202 Kochuveli Mumbai Ltt Garib Rath Express

17:55   CAN
01:05   MAO

S   T   View Time Table ›   7h 10m

CC ₹620	3A ₹740
RLWL3/WL3	RAC 7/RAC 7
⊙ 16 hrs ago	⊙ 1 day ago

16346 Trivandrum Central
Mumbai Ltt Netravati Express

○ 19:35
○ 04:35

S M T W T F S View Time Table ›

SL ₹347	3A ₹895
RLWL19/WL17	AVAILABLE-0006
○ 16 hrs ago	○ 2 days ago
97% (High Chance)	
Book Now	**Book Now**

View 6 day availability ›

16338 Ernakulam Okha
Express

○ 01:50
○ 10:50

T F S View Time Table ›

SL ₹347	3A ₹895
PQWL45/WL42	PQWL7/WL7
○ 16 hrs ago	○ 2 days ago
97% (High Chance)	
Book Now	**Book Now**

. .... 6 day availability ›

12202 Kochuveli Mumbai Ltt Garib Rath Express

17:55   CAN
01:05   MAO

S   T   View Time Table ›

7h 10m

CC ₹620

RLWL3/WL3
🕐 16 hrs ago
93% (High Chance)

Book Now

3A ₹740

RAC 7/RAC 7
🕐 1 day ago

Book Now

View 6 day availability ›

12617 Ernakulam Hazrat Nizamuddin Mangala Lakshadweep Sf Exp

18:42   CAN
03:00   MAO

S   M   T   W   T   F   S   View Time Table ›

8h 18m

SL ₹377

LWL17/WL12
🕐 16 hrs ago
(High Chance)

Book Now

3A ₹945

RLWL8/WL8
🕐 2 days ago

Book Now

2A ₹132

RLWL1/W
🕐 2 days ago

Book

View 6 day availability ›

16346 Trivandrum Central Mumbai Ltt Netravati Express

19:35   CAN
04:35   MAO

INDUSTRIAL VISIT BROCHURE
[2020-14, CE·B]

* College – Goa
    2 day / 3 night

* March 9th, 2023
    → Train journey, Kannur to Madagoa

(Train, ——→ Nizzanu obli. 6.45p'

* March 10th, 2023.
    →) Arriving at Madagoa
* Train — Nethravathi Express
* Day 1, Goa
    After breakfast, move to sight seeing
    1, Old Goa church
        Lunch proceed
    2, Calangute beach
    3, Baga beach
    4, Shopping
    5, Nlo Goa (National Institute of Oceanography)
    Danner & stay   Industry

* Day 2 Goa
    After breakfast, proceed, move to sight seeing
    1, Aguada fort — Industry – Architectural details
    2, Anjuna beach
    2, Lunch proceed.
    3, Colva beach
    4, Dona Paula baich
        Dinner

Overnight return journey (By train)   Nizamuddin 7pm

→ Return to Kannur (By train) - March 11th

→ Arriving to Kannur on March 12th

Number of students — 37

Rupees per head — 4500/

Accomodative staff — Siji Thomas, Abhijath

Siji Thomas 03/2/23

Recommended.

signature 20/02/23

initials

initials

VIMAL JYOTHI ENGINEERING COLLEGE , CHEMPERI
DEPARTMENT OF CIVIL ENGINEERING
INDUSTRY INSTITUTE PARTNERSHIP CELL
<u>INDUSTRIAL VISIT / TOUR REPORT</u>

Date: 12/3/23
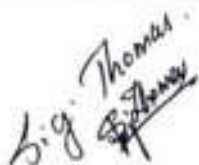
Course & Department	CIVIL ENGINEERING
Date(s) of Visit	10/03/2023
No. of Students visited	37
Accompanying Staff Members	MR ABHIJATH I P MS SINAI MICHAEL
Name & Address of the Company	No. C 15, Phase 1 A Plot Verna Industrial Estate Verna 403722 Goa

Feedback & Authorized Signatory from the Company	
Technical details about the Company	Enclosed / Not enclosed

Comments	

Accomp. Staff   Tutor   HOD

INDUSTRIAL VISIT REPORT

S6 CIVIL (2020-2024 BATCH)

On 10th of March, 75 students of third year civil engineering along with 4 faculty members of Vimal Jyothi Engineering College, Kannur, visited 'Fresh n nice foods', Archaeological Survey of India, Goa.

We departed from our college at 10:00 am and halted in Madgoa by 6 pm.

At 10:00 am we started our journey to our destination. At 11:00 am we reached our first destination 'Fresh n nice foods '. We spent some quality time there and by 12:00 pm we continued our journey towards Aguada fort.

By 2:00 pm we reached the restaurant in GOA to have lunch. By 3 pm we recommenced our journey to Baga beach.

Registered in 2012, India Fresh N Nice Foods has gained immense expertise in supplying & trading of flavored milk like chocolate flavor, strawberry flavor etc. The supplier company is located in Goa, Goa and is one of the leading sellers of listed products. Buy flavored milk like chocolate flavor, strawberry flavor in bulk from us for the best quality products and service.

The Archaeological Survey of India, established in 1861 is an attached office under the Ministry of Culture dedicated to the protection, preservation and conservation of the national monuments. It is a multidisciplinary organization including exploration and excavation, chemical conservation, Horticultural operation, Museum, underwater archaeology, Pre-History Branch, Epigraphy, Publication etc. With the expansion of the Survey, the scope and sphere of the activities of all the branches increased rapidly. As on today, there are 3667 centrally protected monuments including 22 World Heritage Monuments/Sites.

The Archaeological Survey of India took over the archaeological monuments of national importance at Goa from 1968 onwards. The office of the Conservation Assistant was formed under the control of Aurangabad Circle in the year 1964. There are 21 monuments under Goa Circle where preservation and conservation works are being carried out. In 1984, the Mini Circle, Goa was created headed by a Dy. Superintending Archaeologist.

By 10:00 pm we reached our hotel and checked in. We had our dinner there and headed back to our own rooms by 11 pm. That's how our day one of Industrial Visit ends

On 11th March, by 10:00 am our second day of industrial visit began. By 10:00 am we checked out from the hotel and started our journey. By 10:30 am we reached our restaurant and have our breakfast and at 11:30 am we left the restaurant. By 12:00 pm we reached our first destination of day two, Old Goa church. After spending quality time, we headed back to our vehicles and by 2:00 pm we departed from Old Goa church.

At 5 pm we reached our final destination the Colva beach and spend some quality time taking memorable pictures and enjoyed the natural beauty. We started our journey back to the Madgon station by 11:00 pm. Finally we reached the Kannur at 1:30 pm.

We were accompanied by our tutor Mr.Abhijath, Mr.Logi N Boby, Mrs.Rinnet Francis, Mrs.Sinai Michel from civil department and as a parent guide we had Mrs. Jilsamma (mother of Litwin) andMrs. Prema (mother of Annapurna). Also we have some energetic tour coordinators Adithyaraj, Abhinand as well as our tour guide Ajmal sir & Zabeer .Our Industrial Visit was completely successful and all of us got to explore and gain knowledge in different perspectives.

Date:03.03.2023

To

Astronomy Research Centre and Dhoddabetta Tea Factory and Chocolate Factory, Ooty.

Sir,

Sub: Request for carrying out field work by 8th semester Electronics and Communication Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following 8th semester Applied Electronics and Instrumentation Engineering students of this college have to undertake field work associated with their branch of study. A batch consisting of the following students of the 8th semester have expressed its desire to do the field work.

1. VML19EC001 AAVANI M
2. VML19EC002 ABDUL BASITH C C
3. VML19EC003 ADARSH V K
4. VML19EC004 ADWAITH KRISHNA
5. VML19EC005 AMAL PRAMOD
6. VML19EC006 ANGITHA N
7. VML19EC007 ANJANA MUKUNDAN K
8. VML19EC008 ANUSREE K V
9. VML19EC010 ARCHANA T
10. VML19EC011 ASHIK BENNY
11. VML19EC012 ASWIN SURENDRAN
12. VML19EC013 ATHUL GEORGE
13. VML19EC014 BRAJESH P V
14. VML19EC015 CHAITHRA P PRADEEPAN
15. VML19EC016 CHITHRA S
16. VML19EC017 DHANUSH C H
17. VML19EC019 FLEMY
18. VML19EC020 GEETHIKA T
19. VML19EC021 GEOFFIN SAJAN
20. VML19EC022 GOPIKA GOPALAKRISHNAN

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VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE • ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

NATIONAL BOARD of ACCREDITATION
NBA: B.Tech CE,CSE, EEE & ME

NAAC ACCREDITED

21. VML19EC024 JACOB JAMES
22. VML19EC025 JOBIN JOSEPH
23. VML19EC027 KEERTHI PRADEEP KUMAR
24. VML19EC028 KRIS PARUKUNNEL THANKACHAN
25. VML19EC029 MALAVIKA AJITH
26. VML19EC030 MANAS TOM
27. VML19EC031 MARTIN P THOMAS
28. VML19EC032 MELVIN JOSEPH
29. VML19EC034 NAYANA SAJI
30. VML19EC035 NEVIN SAJI
31. VML19EC036 NISWARTH A V
32. VML19EC037 OLIVIA ANN MATHEW
33. VML19EC038 RUBY SHARIN
34. VML19EC039 SAGAR UNNIKRISHNAN
35. VML19EC040 SAISHNA SHAMEJ
36. VML19EC041 SANATH K
37. VML19EC042 SARANG K
38. VML19EC043 SAVIO JOSE
39. VML19EC044 SEBASTIAN GEORGE
40. VML19EC045 SHILPA M NAIR
41. VML19EC046 SHREYA DEEP ANAND
42. VML19EC047 SHRUTI BALACHANDRAN
43. VML19EC048 SIDHARTH K
44. VML19EC049 SNEHA SAJEEVAN T
45. VML19EC050 SOURAV K R V
46. VML19EC051 SWATHI LAKSHMI K V
47. VML19EC055 VIMAL KUMAR P P
48. VML19EC056 VISHNU SHANKAR V K
49. LVML19EC057 ABHIJITH C
50. LVML19EC058 ABHINAV K V
51. LVML19EC059 AKHIL SUNNY
52. LVML19EC060 AKSHAY JANARDHANAN
53. LVML19EC061 ANJALI K P
54. LVML19EC062 HEERA PRADEEP
55. LVML19EC063 JEENA GEORGE

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NATIONAL BOARD
OF ACCREDITATION
NBA: B.Tech CE, CSE, EEE & ME

NAAC ACCREDITED

We will be highly indebted to you if you could give permission to carry out such works. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

INDUSTRIAL VISIT REPORT

OF

S8 ECE

(2019-2023 BATCH)

Department of Electronics and Communication Engineering

2022-2023

INTRODUCTION

Industrial Visit is an important part of the Kerala Technical University curriculum with the goal to understand the technical aspect and workings of an industry which would work hand-in-hand to boost the visual as well as growth in the knowledge base of a BTech student. S8 students of Electronics and Communication department set out to boost this knowledge base for a 3 Day Industrial Visit to Astronomy Research Centre and Dhoddabetta Tea Factory and Chocolate Factory, Ooty. Visitation permission was granted and schedules for the 11th of March, 2023 between 10am- 5pm. The visit was packed with 50 Electronics and Communication Engineering students, 3 faculty members and parent representative to interact with the industry and take in the know-how.

AIM OF THE INDUSTRIAL VISIT

Industrial visit is considered as one of the tactical methods of teaching which is encouraged by our University curriculum to help embolden the students into the desired professionals. The main reason behind this is to let students know the practicality of things through interaction, working methods and employment practices. Moreover, it gives exposure from an academic point of view. It gives them exposure to current work practices as opposed to possibly theoretical knowledge being taught at college. The main aim of an Industrial Visit is to provide an exposure to students about the working environment and the time consuming steps that each end product has to go through .They also provide students a good opportunity to gain full awareness about industrial practices and gain awareness about new technologies. Technology development is a main factor, about which a students should have a good knowledge. Visiting different companies actually help students to build a good relationship with those companies.

After visiting an industry the students can gain a combined knowledge about both theory and practical involvement in the workings.

OBJECTIVES

- An opportunity to get exposure to the real workstations, plants, machines and systems.
- Opportunity to get the senior functional experts / supervisors to explain about company functions.
- Company tour to understand the end-to-end process at all levels.
- Expert briefing about the functioning of machines and systems.
- Opportunity to have a face-to-face session with technical or administrative experts of the organization to ask questions and clarify doubts.
- Opportunity to understand the company policies in terms of production, quality, and service management.
- Make students aware with industrial practices. `
- Acquaint students with interesting facts and newer technologies.
- Practical application of instruments handled during course curriculum.

DETAILS OF THE INDUSTRIAL VISIT

1) **Tata Institute of Fundamental Research, National Centre for Radio Astrophysics, Ooty, Tamil Nadu 643001**

- Date of Visit: 11th March – 2023
- Faculty during visit: Dr. Anto Sahayadas, Dr. Jayesh George and Ms.Shimna P K
- Class during visit: Final Year, Electronics and Communication

Description of the visit

Introduction to the industry: The Radio Astronomy Centre (RAC) is part of the National Centre of Radio Astrophysics (NCAR) of the well-known Tata Institute of Fundamental Research (TIFR) which is funded by the Government of India through the Department of atomic energy. The RAC is situated near Udhagamandalam in the beautiful surroundings of the Nilgiri Hills and it provides stimulating Environment for the front-line research in radio astronomy and astrophysics with its excellent and highly qualified staff and international reputations.

This is a dedicated Astronomy Centre for research and training. This was established by Ratan Tata Basic research Centre. This institute houses physicists, mathematicians and statisticians. It was indeed an enriching experience. The faculty and staff over there were very hospitable and helpful. Our students gained a lot and wanted to delve more into this field.

Contact details

INSTITUTE **D**ETAILS

Radio Astronomy Centre
NCRA - TIFR
Post Box No - 8
Udhagamandalam
Dist: Nilgiris State: Tamilnadu
PIN: 643 001.

☎ 0423 2244880 / 2244888

✉ www@rac.ncra.tifr.res.in

2) **The Tea Factory & The Tea Museum, Dodabetta Road, Mel Koddapmund, Ooty, Tamil Nadu 643002**

- Date of Visit: 11th March – 2023
- Faculty during visit: Dr. Anto Sahayadas, Dr. Jayesh George and Ms. Shimna P K
- Class during visit: Final Year, Electronics and Communication

Description of the visit

     Doddabetta Tea Factory is among the highest-elevation tea factories of the Nilgiris, established 15 years ago, with a view to produce and promote purely authentic Nilgiri teas!

     The need for a 'pure blend' of Nilgiri tea has been long-felt, after it was lost to an entire generation, when in the late 1900s, pure blends of Nilgiri teas gave way to 'mixes' and 'matches' with other high grown produce in the region, including Sri Lanka and Assam tea... In fact, in 1858, after the early experiments with tea by the East India Company, Nilgiri tea, dried and hand rolled, was pronounced as 'excellent' in the London auctions!

The class was guided by the staff through the whole process for Tea making, packing and learnt a lot about the history of how it came into place and what equipment were used and how the breaking down of the leaves through each machine was done as a process with patience. We were introduced to the machinery that is used to prepare the tea leaf packets that we see in the stores. What caught our interest was the machinery undergoing the breaking down of the initial product. After gaining a lot of information we were given samples to taste and were able to buy the end products. Next we went to the chocolate factory nearby and saw the whole process of Chocolate making from the Cocoa bean to the delicious chocolates of varied varieties, taste buds were satisfied throughout the visit so was the knowledge gained of how the end products were formulated.

Contact details

Contact

94430-52066

Doddabetta Tea Factory,

Doddabetta Road, Ooty; Nilgiris

DETAILS OF THE TRIP

A 3 day trip to Rameshwaram - Ooty was planned for an Industrial Visit was organized by the students of S8 ECE with the help of Rosariyo Travel Hub, Kannur from 09th March 2023 to 13th March 2023. 50 Electronics and Communication Engineering students, 3 faculty members and parent representative visited the Astronomy Research Centre and Dhoddabetta Tea factory and Chocolate factory to gain.

Detailed instructions regarding the safety and the trip schedule was presented to the parents and faculty in charge through a meeting conducted prior to the trip.

The bus left at 3:30pm from the college premises on 09 March for Kannur railway station where we baorded the train and left for coimbatore. From there we went by bus arranged by Rosariyo Travel Hub to Rameshwaram-Dhanushkoodi-Nilayamvari Temple-Abdul Kalam house and memorial-Meenakshi Amman Temple.

Dhanushkodi is an abandoned town at the south-eastern tip of Pamban Island of the state of Tamil Nadu in India.[1] It is south-east of Pamban and is about 24 kilometres (15 mi) west of Talaimannar in Sri Lanka.

The town was destroyed during the 1964 Rameswaram cyclone and remains uninhabited in the aftermath. Today only a few vendors and restaurants can be seen at Dhanushkodi during the day along with the ruins of the long destroyed town.

Nilayamvari Temple, The remains of the temple. Floating stone can also be witnessed (look for a small well covered with metal grill). Reaching this place itself is an adventure.

Sir APJ Abdul Kalam's house is renovated by the government but it still holds the same structure. The museum contains so many books and life stories and achievements of Sir APJ Abdul Kalam. It also has a uniform which was worn by him. The top floor contains a souvenir shop which has so many items at a very reasonable rate. You can find toys, artificial jewelry, books, show pieces and a lot more. One must visit this place if you are going to Rameswaram.

Meenakshi Amman Temple is a Beautiful with so much history within the walls of the temple. Such a grandeur. The temple is layered with grace and Ancient history. The temple has a "Hall of Thousand pillars" and each pillar is carved with various sculptures.

Thousands and thousands of unique statues, the gopuras, the polish of the statues, the grandeur. Everyone should see it.

All in all it was an exhilarating experience where each moment was cherished.

From there in the evening we left for Ooty and freshened up and left for the Industrial visit around 9am. We reached the Astronomy Radio Centre, This is a dedicated Astronomy centre for research and training. This was established by Ratan Tata Basic research centre.This institute houses physicists, Mathematicians and statisticians. It was indeed an enriching

experience. The faculty and staff over there were very hospitable and helpful. Our students gained a lot and wanted to delve more into this field through the technical aspect.

We then left for Dhoddabetta Tea factory at around 11am, the class was guided by the staff through the whole process for Tea making, packing and learnt a lot about the history of how it came into place and what equipments were used and how the breaking down of the leaves through each machine was done as a process with patience. We were introduced to the machinery that is used to prepare the tea leaf packets that we see in the stores. What caught our interest was the machinery undergoing the breaking down of the initial product. After gaining a lot of information we were given samples to taste and were able to buy the end products. Next we went to the chocolate factory nearby and saw the whole process of Chocolate making from the Cocoa bean to the delicious chocolates of varied varieties, taste buds were satisfied throughout the visit so was the knowledge gained of how the end products were formulated.

The chosen accommodation was Funcity at Ooty where we were provided with a comfortable stay. The facilities were appreciated by everyone and the highlight of the stay was the calm and esthetic ambience of the surroundings.

The food was prepared by Rosariyo Travel hub which was absolutely enjoyed by all, freshly made breakfast, lunch and dinner was equally devoured by all. We visited the Botanical garden, Pine forest, Coonoor train safari, Karnataka park and made as many memories with our class as we ould in those 2 days in Ooty. A small campfire to dance and sing to glory.

On the 12th we had some time reserved for shopping and then had our dinner and left for Coimbatore that night around 10pm and boarded the train at 6:00 am. We reached around 10:50 am at Kannur and reached back to the campus at around 2:00 pm thus marking the end to our IV. The entire industrial visit gave us an opportunity not just to learn about how an industry works, but also gave us time to bond and understand each other in a better way and create unforgettable memories together.

SCHEDULE OF VISIT

Starting Place: Vimal Jyothi Engineering College
Reaching Place: RAMESWARAM,OOTY
Approximate Traveling Distance (in KM): 1470 KM

09-03-2023

LEAVING FROM COLLEGE	: 04:30 PM
DEPART FROM KANNUR	: 06:05 PM
REACH COIMBATORE	: 11:15 PM

10-03-2023

FRESH UP & BREAKFAST	: 08:30 AM
DEPART TO DHANUSHKODI	: 10:00 AM
TEMPLE	: 11:30 AM
ABDUL KALAM HOUSE	: 12:30 AM
LUNCH BREAK	: 01:30 PM
MUSEUM	: 02:30 PM
DINNER	: 09:00 PM
DEPART TO OOTY	: 10:00 PM

11-03-2023

FRESH UP & BREAKFAST	: 08:30 AM

ASTRONOMY RADIO CENTER : 09:30 AM

DHODDABETTA TEA FACTORY : 11:00 AM

LUNCH BREAK : 01:30 PM

LAKE : 02:30 PM

BOTTANICAL GARDEN : 04:30 PM

CAMPFIRE : 08:30 PM

DINNER & STAY @OOTY FUNCITY : 09:30 PM

12-03-2023

FRESH UP & BREAKFAST : 08:30 AM

COONOOR TRAIN SAFARI : 09:30 AM

KARNATAKA PARK : 12:00 PM

LUNCH BREAK : 01:30 PM

PINE FOREST : 02:30 PM

SHOOTING POINT : 03:30 PM

SHOPPING : 05:00 PM

DINNER : 08:00 PM

DEPART TO COIMBATORE : 10:00 PM

13-03-2023

DEPART TO KANNUR : 04:00 AM

REACH KANNUR : 10:30 AM

REACH THE CAMPUS : 02:00 PM

FACULTY IN CHARGE

ACCOMPANYING STAFF	DESIGNATION	PHONE NUMBER
Dr.ANTO SAHAYA DHAS	HOD/ECE	+91 9486747931
Dr. JAYESH GEORGE	ASP ECE	+91 9746135446

Ms. SHIMNA P K	AP ECE	+91 9526176877
DOLLY SUNNY	PARENT	+91 9961600237

STUDENTS LIST

Sl.No.	Name of student	Reg.No.
1	Aavani M	VML19EC001
2	Abdul basith cc	VML19EC002
3	Abhijith C	LVML19EC057
4	Abhinav KV	LVML19EC058
5	Adarsh vk	VML19EC003
6	Adwaith Krishna	VML19EC004
7	Akhil Sunny	LVML19EC059
8	Akshay Janardhanan	LVML19EC060
9	Amal Pramod	VML19EC005
10	Angitha N	VML19EC006
11	Anjali KP	LVML19EC061
12	Anjana Mukundan.k	VML19EC007
13	Anusree KV	VML19EC008
14	Archana T	VML19EC010
15	Ashik Benny	VML19EC011
16	Aswin Surendran	VML19EC012
17	Brajesh P V	VML19EC014
18	Chithra S	VML19EC016
19	Dhanush CH	VML19EC017
20	FLEMY JOSE	VML19EC019
21	Geethika.T	VML19EC020
22	Geoffin Sajan	VML19EC021
23	Gopika Gopalakrishnan	VML19EC022
24	Heera Pradeep	LVML19EC062

25	Jacob James	VML19EC024
26	Jeena George	LVML19EC063
27	JOBIN JOSEPH	VML19EC025
28	Keerthi Pradeep Kumar	VML19EC027
29	Kris parukunnel thankachan	VML19EC028
30	Malavika Ajith	VML19EC029
31	MANAS TOM	VML19EC030
32	Martin p Thomas	VML19EC031
33	Melvin Joseph	VML19EC032
34	Nayana Saji	VML19EC034
35	Nevin Saji	VML19EC035
36	Niswarth A V	VML19EC036
37	Olivia Ann Mathew	VML19EC037
38	Ruby sharin	VML19EC038
39	Sagar Unnikrishnan	VML19EC039
40	Saishna Shamej	VML19EC040
41	Sanath K	VML19EC041
42	Sarang K	VML19EC042
43	Savio	VML19EC043
44	Sebastian George	VML19EC044
45	Shreya Deep Anand	VML19EC046
46	Sidharth k	VML19EC048
47	Sourav KRV	VML19EC050
48	Swathi Lakshmi K V	VML19EC051
49	Vimal Kumar P P	VML19EC055
50	Vishnu shankar	VML19EC056

SINCERE THANKS

We are extremely grateful to Chairman Sir, for having given us this opportunity and to our respected Principal, HOD and the faculty of the Electronics and Communication department for making it possible. This trip was immensely useful to us and the concepts we learnt will be forever embedded in our minds.

REPORT BY FACULTY

- Students got a clear idea about technologies & equipments that used for purpose of communication
- Industrial visit helped the students to combine their theoretical knowledge with industrial knowledge
- It gives them exposure to current work practice as opposed to possibly theoretical knowledge being taught at college.
- Students got an opportunity to learn practically through interaction , working methods and employment practices
- From the analysis of feedback taken it is found that more than 90% of the students satisfied with the industrial visit and most of them shows interest for such activities in future.

Report Prepared By

Mr. Abhinav K V

Class Representative

Under the Supervision of   Report Recommended by

Ms. Shimna PK   **Dr D Anto Sahaya Dhas**

AP/ECE   **HoD/ECE**

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

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NBA: B.Tech CE,CR: EEE & ME   NAAC ACCREDITED

Date:01.06.2022

To

CLEAN CARBON INDUSTRY, Thaliparamba.

Sir,

Sub: Request for carrying out field work by 6th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following 6th semester Applied Electronics and Instrumentation Engineering students of this college have to undertake field work associated with their branch of study. A batch consisting of the following students of the 6th semester have expressed its desire to do the field work.

1. VML20EE001 ABHISHEK K
2. VML20EE002 ABISHEK VINOD M
3. VML20EE003 AGIL MATHEWS ANTONY
4. VML20EE004 AISWARYA C
5. VML20EE005 AKSHATH ASHOKAN V
6. VML20EE006 ALBIN JAMES
7. VML20EE007 ALEENA K SHIBU
8. VML20EE008 ALEN JOSE BENNY
9. VML20EE009 AMAL RAJ K
10. VML20EE010 AMAR PRADEEP
11. VML20EE011 AMRITH RAJ M V
12. VML20EE012 ANANTHU M THAMBI
13. VML20EE013 ANFAS P
14. VML20EE014 ANTONY THOMAS
15. VML20EE015 ARJUN LAL
16. VML20EE016 ASWIN RAJ
17. VML20EE017 DENO BABY
18. VML20EE018 EBIN JOHN
19. VML20EE019 GEORGE GIBSON
20. VML20EE020 IVIN DENNY
21. VML20EE021 MOHAMED SHIBILI KEELATH P
22. VML20EE022 RAHANA HARIDAS
23. VML20EE023 RELVIN ROSHAN
24. VML20EE024 ROHAN K V

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25. VML20EE025 RONITH SAJEEV
26. VML20EE027 SANDRA S BAIJU
27. VML20EE028 SEBIN MS
28. VML20EE030 SREELAKSHMI RAJEEV
29. VML20EE031 VAIBHAV O
30. VML20EE032 VAISHNAV E
31. VML20EE033 VARADA ANIL
32. VML20EE034 VYSHNAV M K
33. VML19EE001 ABDUL JABBAR YOUNUS
34. VML19EE002 ABHILASH JOSEPH
35. VML19EE003 ABHINAV V
36. VML19EE004 AJIN MATHEW JOSEPH
37. VML19EE005 AJITH SAJI
38. VML19EE006 AKHIL GEORGE
39. VML19EE007 ALBIN SAJI
40. VML19EE008 ALEENA JAISON
41. VML19EE009 ALEN VARGHESE
42. VML19EE010 AMAL BHASKAR
43. VML19EE011 AMRITHA P
44. VML19EE012 ASHLYN WILSON SASTHAMPADAVIL
45. VML19EE013 ASWANTH RAMESHAN
46. VML19EE014 ASWIN K
47. VML19EE015 ASWIN SURESH M S
48. VML19EE016 DILNA MARIA SHIBU
49. VML19EE018 DWITHI SHIVAKUMAR
50. VML19EE019 ELTTIN JOY
51. VML19EE020 GOKUL ARIYIL
52. VML19EE021 HRITHWIK SREEJITH
53. VML19EE022 JOEL M JACOB
54. VML19EE023 JOHN TOMY
55. VML19EE024 KIRAN JOSEPH
56. VML19EE025 MUHAMMED HANNAN FAZAL
57. VML19EE026 NAKUL GANESH
58. VML19EE027 NOYAL JOSE
59. VML19EE029 P ROMA ULLAS
60. VML19EE028 PRANAV TV
61. VML19EE030 RENITHA RAMAKRISHNAN
62. VML19EE031 SAYOOJ DEVAN M.B
63. VML19EE032 SRADHA ALEX

Scanned with OKEN Scanner

64. VML19EE033 VAISHALI PRABHAKARAN
65. VML19EE034 VISHNU SREEKUMAR K M
66. VML19EE035 ZIJAH TK

We will be highly indebted to you if you could give permission to carry out such works. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

S6 EEE - REPORT OF INDUSTRIAL VISIT
09 JUNE 2022 to 12 JUNE 2022
(2019-2023 EEE BATCH)

2019-23 EEE batch of VJEC conducted an Industrial Visit.Altogether there were 29 students,2 faculty members and 1 parent in the group.The industrial visit was planned from 09th june to 12th june of 2022.The venue was Goa.The detailed report of the visit is mentioned below.

DAY 01- 09/06/2022 (Friday)
The first industrial visit of our batch commenced upon om 5:30pm, as we are planned to start the journey at 6:00pm.All students reported at college at the right time.Thus we started the journey on time after a small prayer.our destination was CLEAN CARBON INDUSTRY,Thaliparamba.We visited the factory with great excitement as it was experience for most of us.One of the workers the factory clearly explained the working and operation of all the process which are performing there.

DAY 02 - 10/06/2022(Friday)
We reached Goa by 8:30am ,after fresh up and breakfast, we visited the industry FRESH and NICE food products.By 12:05pm ,we started sight seeing .Our first spot was Aguada fort.We really amazed about its construction by the Portuguese during the 17th century. Later, we went to the restaurant and had lunch.Then we moved to Baga Beach,which is the main attraction. We did a small shopping over there and spent time together, which are the memories of today.After that, we had our dinner and went back to the rooms.

DAY 03 - 11/06/2023

By 9:00am,after vacating the room we had our breakfast and set out to visit Basilica of Bom Jesus,which is both a pilgrimage center and also the most iconic monument of all the churches of Goa.Seeing such a monument which is an array of Portuguese construction was a pleasant and unforgettable experience for each among us. Later after lunch by 5:00pm we started our return journey.

DAY 04 - 12/06/2023

After having a great time together, sharing happiness and a lot of knowledge we reached back to our college by 8am.

Staffs accompanied:
1. Asst.Prof. Jyothi Joseph,EEE,VJEC
2. Prof. Teena George,EEE,VJEC

Parent accompanied:

Preetha P

PHOTO GALLERY

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NAAC ACCREDITED

Date: 01.05.2023

To

Kites Softwares Pvt.Ltd

Kochi

Sir,

Sub: Request for carrying out Internship Training by 6th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 6th semester have expressed their desire to do the Internship training in your esteemed firm.

1. Ms. Alana Ance John
2. Ms. Deni Thomas
3. Jashlin S Simon

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above student are good.

Thanking you,

Yours faithfully,

Principal

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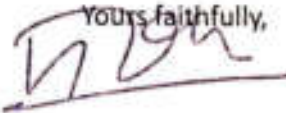
Date:26.06.2023

To

InTrAinZ

Sir,

Sub: Request for carrying out Internship Training by 3rd semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 3rd semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 3rd semester have expressed its desire to do the Internship training in your esteemed firm.

1. VinayaKrishnan C
2. Madhav Murali

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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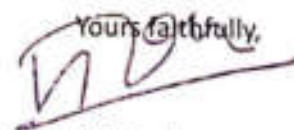**NAAC ACCREDITED**

Date:18.07.2022

To

Coincent

Sir,

Sub: Request for carrying out Internship Training by 6th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering student of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following student of the 6th semester have expressed their desire to do the Internship training in your esteemed firm.

1. AARSHA ANIL

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our student by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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Date:01.05.2023

To

Mentorow Geo Info Park, Ernakulam

Sir,

Sub: Request for carrying out Internship Training by 4th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 4th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 4th semester have expressed their desire to do the Internship training in your esteemed firm.

1. Ms. Sanika K
2. Ms. Neha P
3. Ms. Anusree E

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above student are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:01.05.2023

To

Robotics EdTech Product development unit.

Sir,

Sub: Request for carrying out Internship Training by 4th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 4th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 4th semester have expressed its desire to do the Internship training in your esteemed firm.

1. ASHIMA O T

2. HELAN KURIAKOSE

3. NANDANA PRSANTH

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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Date:17.04.2023

To

JANKALYAN MULTIPURPOSE EDUCATION SOCIETY

Sir,

Sub: Request for carrying out Internship Training by 4th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 4th semester Electrical and Electronics Engineering student of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following student of the 4th semester have expressed its desire to do the Internship training in your esteemed firm.

1. SHON JOJI

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our student by extending the facilities there. It is further certified that the character and conduct of the above student are good.

Thanking you,

Yours faithfully,

Principal

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NATIONAL BOARD
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NAAC ACCREDITED

Date:17.04.2023

To

JANKALYAN MULTIPURPOSE EDUCATION SOCIETY

Sir,

Sub: Request for carrying out Internship Training by 4th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 4th semester Electrical and Electronics Engineering student of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following student of the 4th semester have expressed its desire to do the Internship training in your esteemed firm.

1. SHON JOJI

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our student by extending the facilities there. It is further certified that the character and conduct of the above student are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:14.10.2022

To

Learnheros

Sir,

Sub: Request for carrying out Internship Training by 5th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 5th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 5th semester have expressed its desire to do the Internship training in your esteemed firm.

1. KIRAN PRASAD PP

2. NANDHAJ VIJAYAN

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
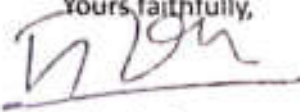JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

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NATIONAL BOARD of ACCREDITATION
NBA: B Tech CE,CSE, EEE & ME

NAAC ACCRE

Date:01.05.2023

To

Rever Tech IT Solutions

Sir,

Sub: Request for carrying out Internship Training by 5th and 6th semester Artificial Intelligence and Data Science students-reg.

As part of the curriculum of B. Tech Degree course, the following 5th and 6th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 5th and 6th semester have expressed its desire to do the Internship training in your esteemed firm.

1. ABHAY DAS
2. ABHINAV M
3. ABHIRAM INDRAJITH
4. ALEN AUGUSTINE ISSY
5. AMAL SHIBU
6. AMARDEEP
7. AMITH AJITH KUMAR
8. ANN MARIA E C
9. ARYA P
10. CINANA VINOD
11. DENISE MARIA JAMES
12. DERLIN SHAJU
13. DEVA NAIR
14. DIVYAMOL VARKEY
15. FATHIMA EBRAHIM KUTTY
16. FATHIMATHU NASNA S P
17. GODLY SABU

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18. GOKUL M

19. JYOTHIKA J

20. JYOTHISH M

21. LITTY FLOWERY XAVIER

22. MAZIN MURSHID

23. MUHAMMED RAIHAN M

24. NIDHINA N

25. NIXON JOHN GEORGE

26. NOEL SHAJI

27. NOYAL B MATHEW

28. SAYANTH T

29. SOURAG P V

30. SOURAV M K

31. VAISHAK RAJIV

32. VILAS P K

33. YADHU KRISHNA K

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:17.09.2022

To

KELTRON

Karakulam

Thiruvananthapuram

Kerala

Sir,

Sub: Request for carrying out Internship Training by 6th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of the B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering student of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following student of the 6th semester have expressed their desire to do the Internship training in your esteemed firm.

1. ASWIN K

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our student by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:10.10.2022
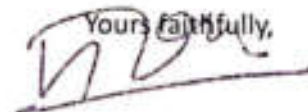
To

KSEB

220 KV substation

Thaliparamba, Kannur

Sir,

Sub: Request for carrying out Internship Training by 6th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of the B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 6th semester have expressed its desire to do the Internship training in your esteemed firm.

1. AJIN MATHEW JOSEPH
2. AJITH SAJI
3. JOHN TOMY

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

Date:10.10.2022

To

KSEB

110 KV substation

Iritty, Kannur

Sir,

Sub: Request for carrying out Internship Training by 5th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following 5th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 5th semester have expressed its desire to do the Internship training in your esteemed firm.

1. ABDUL JABBAR YOUNUS
2. ASWIN SURESH M S

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:01.09.2022

To

KSEB

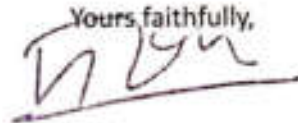BDPP Brahmapuram, Ernakulam

Sir,

Sub: Request for carrying out Internship Training by 6th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of the B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering student of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following student of the 6th semester have expressed their desire to do the Internship training in your esteemed firm.

1. SAYOOJ DEVAN M.B

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our student by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

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NAAC ACCREDITED

Date:10.10.2022

To

KSEB

220 KV substation

Kanhirode, Kannur

Sir,

Sub: Request for carrying out Internship Training by 6th semester Electrical and Electronics Engineering students-reg.

As part of the curriculum of the B. Tech Degree course, the following 6th semester Electrical and Electronics Engineering students of this college have to undertake an internship training associated with their branch of study. A batch consisting of the following students of the 6th semester have expressed its desire to do the Internship training in your esteemed firm.

1. DILNA MARIA SHIBU
2. DWITHI SHIVAKUMAR

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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Accredited by Institution of Engineers (India), BPA, NAAC

Date:10 May 2023

To

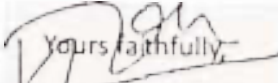Inker Robotics Solutions Pvt Ltd.

Thrissur,

Kerala

Sir,

Sub: Request for carrying out Internship Training by a group of Fourth Semester Applied Electronics and Instrumentation students-reg.

As part of the curriculum of B. Tech Degree course, the following Fourth Semester Applied Electronics an Instrumentation students of this college have to undertake internship training associated with their branch of study. A batch consisting of the following students of the Fourth Semester have expressed their desire to do the Internship training in your esteemed firm.

1. Aida Thomas
2. Anurag E V
3. JasminePTK
4. MOHAMMED AMAL ABDULLA ASGAR
5. Stephin K Thakachan
6. Deepak Haridas
7. Merin Saji
8. Sreenav V
9. Rony Sibi

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

Date:2 May 2023

To

SMEC Automation Pvt.Ltd
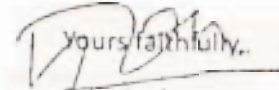
2nd floor Kaloor bustand complex,

Cochin,

Kerala

Sir,

Sub: Request for carrying out Internship Training by a group of Sixth Semester Applied Electonics and Instrumentation Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Applied Electronics and Instrumentation students of this college have to undertake internship training associated with their branch of study. A batch consisting of the following students of the Sixth Semester have expressed its desire to do the Internship training in your esteemed firm.

1. ASWIN TS

2. HIRANDEEP T

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI - 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE • ISO 9001 : 2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

Date:1 June 2023
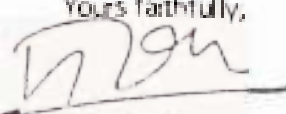
To

Techmachi,

North Kalamassery,

Kochi.

Sr,

Sub: Request for carrying out Internship Training by Seventh Semester Applied Electronics and Instrumentation Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Seventh Semester Applied Electronics and Instrumentation Engineering students of this college have to undertake internship training associated with their branch of study. The following students of the Seventh Semester have expressed his desire to do the Internship training in your esteemed firm.

1. Kiran KV

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHINAGAR, CHEMPERI – 670632, KANNUR, KERALA

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NBA B.Tech CE CSE EEE & ME

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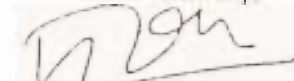Date: 01/05/2023

To

Techmachi

Sir,

Sub: Request for carrying out Internship Training by a Sixth Semester Applied Electronics and Instrumentation Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Engineering students of this college have to undertake internship training associated with their branch of study. Ayana P V of the Sixth Semester has expressed her desire to do the Internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

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Approved by AICTE • ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

Date: 01/05/2023

To

FundUp

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. Litwin Augustia Xavier of the Sixth Semester has expressed his desire to do the internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI– 670632, KANNUR, KERALA

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NAAC ACCREDITED

Date: 17/05/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by Fifth Semester Civil Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Fifth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. Saloniya K of the Fifth Semester has expressed its desire to do the Internship training in your esteemed firm.
We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHINAGAR, CHEMPERI– 670632, KANNUR, KERALA

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NATIONAL BOARD of ACCREDITATION

NAAC ACCREDITED

Date: 28/09/2022

To

SQ Engineering contractors Pvt.Ltd

Sir,

Sub: Request for carrying out Internship Training by a group of Fifth Semester Civil Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Fifth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. The following students of the Fifth Semester have expressed its desire to do the Internship training in your esteemed firm.

1. Alan Joshy

2. Siddarth. D

    We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully

Principal

Date: 28/09/2022

To

ULCC

Sir,

Sub: Request for carrying out Internship Training by a group of Fifth Semester Civil Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Fifth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. The following students of the Fifth Semester have expressed their desire to do the Internship training in your esteemed firm.

1. Gopika Gangadharan

2. Aparna chandran p p

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully

Principal

Date: 20/05/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by Fifth Semester Civil Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Fifth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. Abhinand K of the Fifth Semester have expressed his desire to do the Internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

Date: 20/01/2023

To

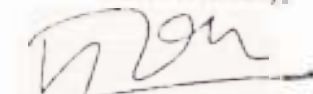ALG internation institue of technology

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester CivilEngineering students of this college have to undertake internship training associated with their branch of study. Ashuthosh P of the Sixth Semester has expressed his desire to do the Internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI– 670632, KANNUR, KERALA
Affiliated to APJ Abdul Kalam Technological University
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Accredited by Institution of Engineers (India), NBA, NAAC

Date: 01/05/2023

To

ARIF associates.

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering

student-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Engineering students of this college have to undertake internship training associated with their branch of study. Aisha Nuha of the Sixth Semester has expressed its desire to do the Internship training in Your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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NAAC ACCREDITED

Date: 28/04/2023

To

Baker associates and consultants

Sir,

Sub: Request for carrying out Internship Training by a group of Sixth Semester Civil Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. The following students of the Sixth Semester have expressed its desire to do the Internship training in your esteemed firm.

1. ASWANTH BHASKARAN V

2. KIRANDEV

3. AJAY JOHN

4. AKSHATH

5. SARANG CK

6. Amain p

7. Abhijith Surendran

8. THEJAL PRASANTH

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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NAAC ACCREDITED

Date: 01/06/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering students-reg.

As part of the curriculum of the B. Tech Degree course, the following Sixth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. Abhijith M of the Sixth Semester has expressed his desire to do the internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. it is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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NBA
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of ACCREDITATION
NBA B.Tech CE CSE EEE & ME

NAAC ACCREDITED

Date: 20/05/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study- SHAFNA C of the Sixth Semester has expressed its desire to do the Internship training in your esteemed firm.

   We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTHI NAGAR, CHEMPERI– 670632, KANNUR, KERALA

Affiliated to APJ Abdul Kalam Technological University
Approved by AICTE • ISO 9001:2015 Certified
Accredited by Institution of Engineers (India), NBA, NAAC

Date: 01/05/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by Sixth Semester Civil Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Civil Engineering students of this college have to undertake internship training associated with their branch of study. Litwin Augusta Xavier of the Sixth Semester has expressed her desire to do the Internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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NAAC ACCREDITED

Date: 02/07/2023

To

CMTI

Sir,

Sub: Request for carrying out Internship Training by a group of Sixth Semester Civil Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Sixth Semester Engineering students of this college have to undertake internship training associated with their branch of study. The following Sixth Semester has expressed their desire to do the Internship training in your esteemed firm.

1.Vishnudas PV

2.Teena Vinod

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

INTERNSHIP REPORT

submitted by

ANAGHA PREMARAJAN V (VML19CEO21)

NITHIN JOSE (VML19CE075)

VISMAYA MOHAN K (VML19CE104)

to

the APJ Abdul Kalam Technological University

in partial fulfillment of the requirements for the award of the Degree

of

Bachelor of Technology

In

Civil Engineering

Department of Civil Engineering

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI

OCTOBER 2022

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

DECLARATION

We undersigned hereby declare that the internship report submitted for partial fulfillment of the requirements for the award of degree of Bachelor of Technology of the APJ Abdul Kalam Technological University, Kerala is a bonafide work done by us under the supervision of scientist Arun Chandran. This submission represents our works during the internship in our own words and where ideas or words of other have been included. We also declare that we have adhered to ethics of academic honesty and integrity and have not misrepresented or fabricated any data or idea or fact or source in our submission.

Place: Thiruvananthapuram
Date: 20/10/2022

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

KSCSTE - NATIONAL TRANSPORTATION PLANNING AND RESEARCH CENTRE

(An Institution of Kerala State Council for Science, Technology & Environment)
K. Karunakaran Transpark, Akkulam, Thuruvikkal P.O, Thiruvananthapuram-695011, Kerala
E-mail: contactus.natpac@kerala.gov.in, info.natpac@kerala.gov.in
Phone: 0471 – 2551282/2554467/2553701, Website: www.natpac.kerala.gov.in

CERTIFICATE

This is to certify that the following B. Tech students of **Vimal Jyothi Engineering College, Kannur,** affiliated to APJ Abdul Kalam Technological University have successfully completed Internship Training in **Transportation Planning and Engineering Division** under the guidance of **Shri. Arun Chandran** at KSCSCTE-NATPAC, Thiruvananthapuram from 13th October, 2022 to 20th October,2022. They were involved in the project "Development of parking policy framework for Kerala". During the period of training, the students were punctual, hardworking and showed a keen interest to learn and their performance were satisfactory.

1. Anagha Premarajan V (VML19CE021)
2. Nithin Jose (VML19CE075)
3. Vismaya Mohan K (VML19CE104)

Arun Chandran
Senior Scientist
Transportation Planning and Engineering Division
KSCSTE-NATPAC
Thiruvananthapuram, Kerala

Aakkulam
20/10/2022

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

ACKNOWLEDGEMENT

We, NITHIN JOSE, ANAGHA PREMARAJAN V, VISMAYA MOHAN K would like to thank our guide Shri. Arun Chandran, SENIOR SCIENTIST, KSCSTE-NATPAC, Kerala for his guidance, valuable suggestions and extending all the facilities to carry out for this internship. I also thank Mr. Althaf J Muhammed, Ms. Greeshma Gireesh PROJECT ENGINEER, KSCSTE-NATPAC, Kerala for helping me with the data provided and valuable suggestions in the study.

I would like to express my sincere gratitude to KSCSTE-NATPAC, Kerala for providing mean opportunity to carryout internship work. Our acknowledgement would not be complete without thanking our beloved parents and above all, we'd like to express our sincere gratitude to God Almighty for showering his blessings upon us.

It is with great enthusiasm and learning spirit that we bring out this internship report. We also feel that it is the right opportunity to acknowledge for the support and guidance from all those who helped us during the course of completion of our internship.

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

INTERNSHIP REPORT

PROJECT 1

We got an opportunity to be a part of the project "Development of parking policy framework for kerala" under the guidance of Shri. Arun Chandran, senior scientist, in NATPAC, Thiruvananthapuram.

Parking is considered as the major problem in urban areas/cities in the state of Kerala. Adequate off-street parking supply is needed to discourage on-street parking and there by reduces traffic congestion in cities.

Cities are places where high concentration of economic activities are present and are complex spatial structures that are supported by transport systems. Data about the actual parking capacity and use of parking is absent in most urban areas. The vehicles population is expanding beyond all prediction making parking demand projection unrealistic.

Lack of hard data makes it difficult to fully understand the real problem and develop effective policies. We were involved in a small part of this project in the field of data collection for finding solution for the and its tabulation needed for the project

METHODS OF DATA COLLECTION

There are two broad approaches to data collection:

> **Observational (passive) surveys** – where surveyors (human or mechanical) record the occurrence (and often time of occurrence) of specified transport events or phenomena, such as the passage of vehicles past a point on the road, the arrival of trucks at a warehouse, or the number of passengers exiting from a railway platform in a specified time interval

> **Interview (active) surveys** – where the surveyors make contact with the individual travelers, customers or decision makers to seek information directly from them

The method which done here was an active interview where the data was collected by interviewing random persons across the street and collecting information regarding the issues prevailed with respect to the project we are dealing with. The obtained data was converted to a spreadsheet for the analysis

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

Data entry and tabulation of conducted survey

PROJECT 2

Another project we were involved was about the traffic issue present at Eastfort and for the purpose of fetching a solution traffic survey should be conducted. We visited the site and collected relevant data about the current situation for developing a remedial measure. For that purpose, we helped in the preparation of the questionnaire required for conducting the survey.

PROJECT 3

We were also trained in the real-life application of the various lab experiments which were conducted back in the college. It really helped in the understanding the necessity in various works. Main task was the pulverization of the soil collected form the site at Thrissur.. Pulverized soil was used to conduct various tests to determine the properties of soil, which depends on the construction.

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

Pulverization of the soil

TIRTL SOFTWARE

The Infra-Red Traffic Logger, more commonly known simply by the acronym TIRTL, is a multi-purpose traffic sensor that can be used as a traffic counter, speed sensor, red light camera sensor, heavy vehicle tracker, over height vehicle sensor, rail crossing sensor and network management system.

This instrument was made us available to study the new technologies for the data collection with minimal human effort and obtaining maximum data. This instrument helps to transfer the data to a spread sheet and each area of interest can be obtained individually and interpretated.

The devices has two RS-232 ports for data transfer. There are optional inbuilt GSM, PSTN, and satellite phone modems available. The unit has the ability to stream traffic information real-time which can drive intelligent traffic signs and send data back to traffic operation centers. There are also adapters available for connection to traffic cameras for enforcement purposes. This system consists of a receiver unit and transmitter unit placed on opposite sides of the road perpendicular to the direction of travel. The transmitter sends two cones of infrared light across the roadway, and the receiver records vehicles as they break and remake these cones. TIRTL transmitter's infrared cones cross each other and form two straight and two diagonal beam pathways. When a vehicle crosses the beam pathways, TIRTL records two beam events; it records one from the vehicle breaking and one leaving the beam pathway. These two beams events are recorded for all four beam pathways. Thus, eight timestamped events are generated per axle. The velocity is derived from the timestamps of these beam events.

Since the velocity of each vehicle wheel is known and a timestamp is recorded for each axle crossing each beam, the interwheel spacings can be determined. Once the interaxle spacings are known, it is compared to a table of interaxle spacing ranges stored in the unit to determine the correct classification of the vehicle. The results are stored on a per vehicle basis
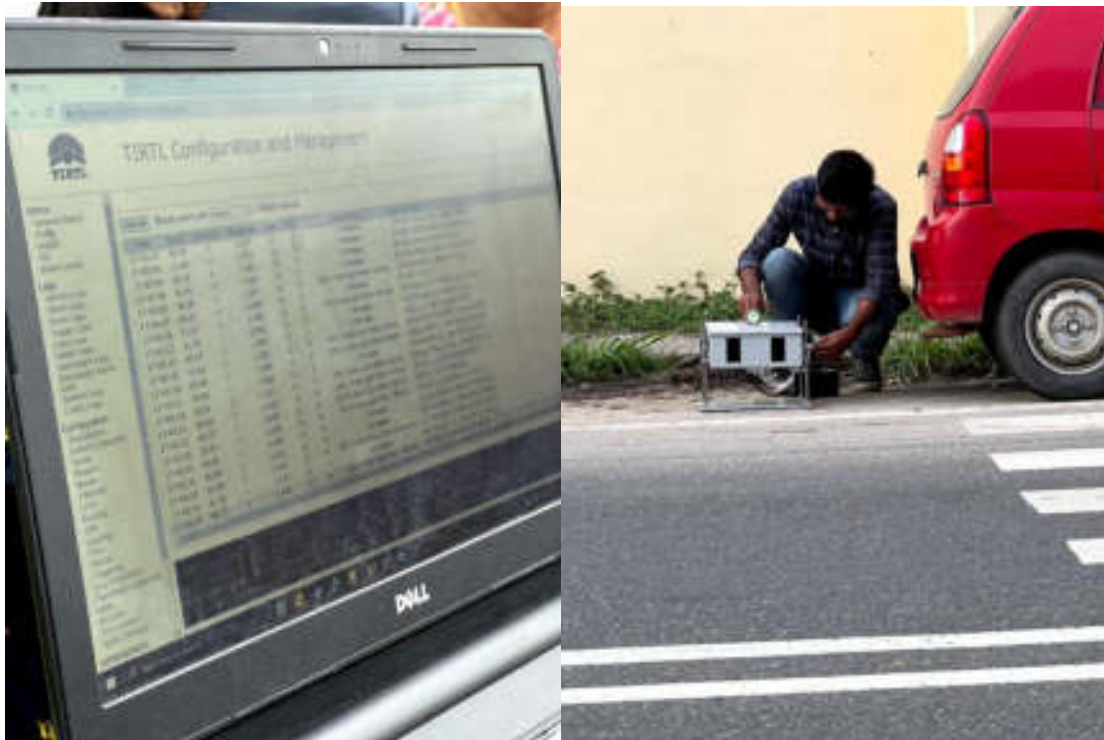
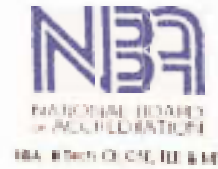Images related to TIRTL

KM JOSEPH BENNY
JOSEPH

12.01.2024 00:04

Date: 02/05/2021

To

BOLT

Sir,

Sub: Request for carrying out Internship Training by Fourth Semester computer Science and Engineering students-reg.

As part of the curriculum of B. Tech Degree course, the following Fourth Semester CSE students of this college have to undertake internship training associated with their branch of study. Sona P of Fourth Semester has expressed her desire to do the Internship training in your esteemed firm.

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above students are good.

Thanking you,

Yours faithfully,

Principal

VIMAL JYOTHI
ENGINEERING COLLEGE
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NBA

NAAC ACCREDITED

Date: 01.03.2023

To

HAL IISc Skill development centre

Indian institute of science, Bangalore, India

Sir,

Sub: Request for carrying out Internship Training by 4th semester Mechanical Engineering student-reg.

As part of the curriculum of B. Tech Degree course, the following 4th semester Mechanical Engineering student of this college have to undertake an internship training associated with their branch of study. The following student of the 4th Semester have expressed his desire to do the Internship training in your esteemed firm.

1. Govind Manoj

We will be highly indebted to you if you could give permission to carry out such Training. If you can kindly agree to our proposal, please help our students by extending the facilities there. It is further certified that the character and conduct of the above student are good.

Thanking you,

Yours faithfully,

Principal