ADD ON COURSE 2022-23

Sl. No	Department	Title of the program	Year and batch of students whom this course is offered.	Number of hours	Collaborating external agencies if any
1	CE	Training in Total station	S4 CE (52 Students	30 hours	
2	CE	Training in Total station	s6 CE (83 students)	30 hours	
3	CE	Training in Total station	S8 CE A (52 students	30 hours	
4	CE	Training in Total station	S8 CE B (52 Studen	30 hours	
5	CE	Bridge Designing Using ASTRAPRO	S8 CE	30 hours	
6	CE	Training on BIM	s6 CE (83 students)	30 hours	
7	AD	Deep Learning	S4, S6	30 hours	
8	ME	BIM-MEP REVIT	S6 ME	30hrs	BIMLABS
9	ME	ADME801-BIMTOOLS-REVETMEPNAD INVENTOR	S7ME	30hrs	
10	ME	ADME401-INDUCTRIAL ROBOTICS AND IOT	S3ME	30 Hrs	
11	CSE	Training on Blockchain Technology	S7 CSE	30 Hours	Kerala Blockchain academy
12	CSE	Machine learning	S8 CSE	30 Hours	Evolve Robotics
13	CSE	Cyber Security	S6 CSE	30 Hours	Red Team Hacker Academy
14	CSE	Object oriented programming using Python	S4 CSE	30 Hours	Progressum
15	EIE	Industrial Automation	S7 AEI	30 hrs	Sree Technologies
17	EIE	Electronics Sytem Design	S3 EIE	30hrs	
18	EE	Python Programming	S6 EEE	30 hrs	
19	EE	PLC, HMI	S8 EEE	30 hrs	
20	EE	Fundamentals of Python programming	S4 EEE	30 hrs	Deep flow Technologies Pvt Ltd
21	EC	Conceptual study on Data Science	S8 EC	30 hrs	
22	EC	Advanced lerning in Python	S6 EC	30 hrs	Quest Innovative Solutions, Kochi
23	EC	Fundamentals of Python programming	S4 EC	30 hrs	Quest Innovative Solutions, Kochi

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF MECHANICAL ENGINEERING

Offering

ADD-ON COURSE on

Industrial Robotics and Internet of Things

COURSE CODE: ADME401

Course duration: 5 days (30 hours)

In association with

Klein Robotics & Skillobotics Edutech Pvt. Ltd

FOR 4[h] SEMESTER MECHANICAL ENGINEERING STUDENTS

Venue: CAD lab from 13/02/2023 to 17/02/2023

TRAINING INSTITUTE:
SKILLOBOTICS EDUTECH PVT. LTD

FUNDED AND SPONSORED BY
VIMAL JYOTHI ENGINEERING COLLEGE

Convener: Cdr. Raju K Kuriakose (retd), HOD ME
Staff Coordinators: Mr. Mejo M Franics, Dr. Sreekanth M .P, Mr. Anoop K. R


COMPUTER SCIENCE ENGINEERING DEPARTMENT
PRESENTS TRAINING PROGRAM ON
OBJECT ORIENTED
PROGRAMMING
IN PYTHON
15-03-2023 TO 19-03-2023
3 DAYS OFFLINE. 2 DAYS ONLINE WTH PROJECT
STAFF COORDINATORS :
MS. SUHADA C
MS. MANJU M
(ASSISTANT PROFESSOR)
STUDENT COORDINATORS :
KAMAL SURESH - S4 CSE B
JUSTIN JAMES THOMAS - S4 CSE B
VIMAL JYOTHI
INSTITUTIONS CHEMPERI KANNUR

KTU Affiliated

ACCREDITED BY NAAC

VIMAL JYOTHI ENGINEERING COLLEGE

CHEMPERI, KANNUR

Department of Civil Engineering

Organizes

Workshop on

TOTAL STATION

for the 4th semester B.Tech Civil Engineering students

From 15/02/2023 to 19/02/2023

Resource Personnel:

Sanjana P, Surveying Expert

Mudhassir M , GIS Consultant

Faculty Co-ordinators:

Logi N Boby

Rojin P

Resmitha Rani Antony

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF MECHANICAL ENGINEERING

Add-on course on

Modelling and Design Using BIM Tools

FOR 6th SEMESTER MECHANICAL ENGINEERING STUDENTS

@CAD lab from 06/02/2023 onwards

Course code: ADME601

Course duration: 5 days (30 hours)

TRAINING INSTITUTE:
BIMLABS

FUNDED AND SPONSORED BY
VIMAL JYOTHI ENGINEERING COLLEGE

Convener: Cdr. Raju K Kuriakose (retd)

Staff Coordinators: Mr. Appu C Kurian, Dr. Sridharan P, Dr. Jithin E. V

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Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

OFFERING ADD-ON COURSE ON

CYBER SECURITY ANALYTICS

COURSE CODE : ADCS 601

COURSE DURATION : 5 DAYS (30 HOURS)

ORDER NO : VJ/CSE/AC/2023/3

DATED : 20-12-2022

IN ASSOSIATION WITH:

RED TEAM HACKER ACADEMY

FOR 6TH SEMESTER COMPUTER SCIENCE AND ENGINEERING STUDENTS ON

MARCH 22, 23, 24, 25, 26

FUNDED & SPONSORED BY

VIMAL JYOTHI ENGINEERING COLLEGE

REDTEAM® HACKER ACADEMY

Convener - Ms: Divya B (HOD)

Staff Coordinators - Ms: Najira Salam

Ms: Sreedaya M

VISION OF THE DEPARTMENT

To contribute to the society through excellence in scientific and knowledge-based education utilizing the potential of computer science and engineering with a deep passion for wisdom, culture and values.

MISSION OF THE DEPARTMENT

To promote all-round growth of an individual by creating futuristic environment that fosters critical thinking, dynamism and innovation to transform them into globally competitive professionals.
To undertake collaborative projects which offer opportunities for long-term interaction with academia and industry.
To develop human potential to its fullest extent so that intellectually capable and optimistic leaders can emerge in a range of professions.

VIMAL JYOTHI ENGINEERING COLLEGE

Total station workshop

For 6 th semester B.Tech Civil engineering students

22/02/2023 to 24/02/2023

Resourse Persons:

Sanjana P(Surveying Expert)

Mudhassir M (GIS Consultant)

(ALG International Geological services private Lmt.)

Coordinators:

Ms.Anuragi P
Mr.Saneesh K
Dr.Vibhoosha M P


VIMAL JYOTHI
ENGINEERING COLLEGE
CHEMPERI - KANNUR - KERALA
0460 2212240, 9846423448 : www.vjec.ac.in
NBA
NATIONAL BOARD OF ACCREDITATION
Department of CSE
Artificial Intelligence and Data Science
A HANDS - ON WORKSHOP ON
"DEEP LEARNING
A REAL - WORLD APPROACH"
for 6th Semester Artificial Intelligence & Data Science Students
29.03.2023 - 02.04.2023
VENUE : EMBEDDED SYSTEM LAB
Staff coordinators
Ms. Ancy K Sunny , AP CSE
Ms.Thripthi P Balakrishnan, AP CSE
Convenor
Dr. Manoj V Thomas,
Professor & Programme Coordinator (ADS)
Resource Persons:
Dr. Premjith B
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore
Mr. Sajith Variyar V.V
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore

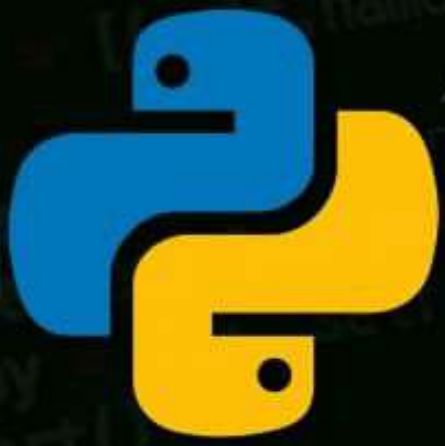
VIMAL JYOTHI
ENGINEERING COLLEGE

QUEST
INNOVATIVE SOLUTIONS

ADD ON COURSE

ADEC 601

PYTHON PROGRAMMING FOR DATA SCIENCE & MACHINE LEARNING



DATE

15 - 17 MARCH 2023

TIME

09:00 AM - 04:10 PM

VENUE

ADVANCED COMMUNICATION LAB,
ECE DEPARTMENT

PARTICIPANTS

S6 ECE STUDENTS

COORDINATORS

MR. BINILKUMAR K
MS. LEKSHMY S
MR. ADARSH K S

CONVENOR

DR. D ANTO SAHAYA DHAS

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF MECHANICAL ENGINEERING

Add-on course on

MEP Modelling Using BIM Tools (Revit,Inventor)

FOR 8th SEMESTER MECHANICAL ENGINEERING STUDENTS

@CAD lab from 30/01/2023 onwards

Course code: ADME801

Course duration: 5 days (30 hours)

TRAINING INSTITUTE:

BIMLABS

FUNDED AND SPONSORED BY

VIMAL JYOTHI ENGINEERING COLLEGE

Convener: Cdr. Raju K Kuriakose (retd)

Staff Coordinators: Mr. Midhun Mukundan M.K., Mr. Shaminmuthu K.K., Mr. Dilin Dinesh, Mr. Arunlal MP

Signature Not Verified

Principal.VJEC

VIMAL JYOTHI ENGINEERING COLLEGE

Department Of Computer Science Engineering
Presents

5 DAY TRAINING PROGRAM FOR FINAL YEAR CSE STUDENTS

ON

BLOCKCHAIN TECHNOLOGIES

Date : 04/03/2023 - 08/03/2023
5 day hybrid training program
(2 day online, 2 day offline and 1 day project).

Staff Coordinators
Mr. Rijin IK.
Ms. Diya Rameshan
Assistant Professor

Student Coordinators
Adheena KM
Aalap Ragesh
S8 CSE A

VIMAL JYOTHI ENGINEERING COLLEGE

JYOTHI NAGAR, CHEMPERI – 670632, KANNUR, KERALA

ACCREDITED BY IEI, NBA & NAAC ◆ ISO 9001:2015 CERTIFIED

AFFILIATED TO KTU ◆ APPROVED BY AICTE

DEPARTMENT OF

ELECTRONICS &INSTRUMENTATION ENGINEERING

ADD-ON COURSE

On

Machine Vision and Artificial Intelligence in Robotics

Venue: Research lab AEI

Date: 28/02/2023 to 04/03/2023

COURSE CODE: ADEI401

Course duration: 5 days (30 hours)

In association with

Srishti Robotics Technologies Pvt Ltd

FOR

Final Year Applied Electronics and Instrumentation Engineering Students

Convener: Dr.G.Glan Devadhas, Professor, HOD AEI

Staff Coordinators: Mrs.Jinsa Mathew, Mr.Shinu MM

Assistant Professor, AEI

Vision

The department strives to enrich professionals of high competency in the area of instrumentation engineering and mould them to adopt the crux of matter in the field of automation.

Mission

To prepare the students to envisage beyond the hypothetical thinking and belong to a new era of acquisition and application of instrumentation technology to meet the requisition of the changing world.

INNOVATION AND ENTREPRENEURSHIP DEVELOPMENT CENTRE

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

Signature Not Verified

Principal.VJEC

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Artificial Intelligence and Data Science

A Report on Add-on Course

"Deep Learning – A Real World Approach"

for

S6 ADS (2020-'24)

29/03/2023 – 02/04/2023

Index

Poster


VIMAL JYOTHI
ENGINEERING COLLEGE
CHEMPERI - KANNUR - KERALA
Department of CSE
Artificial Intelligence and Data Science
A HANDS - ON WORKSHOP ON
"DEEP LEARNING
A REAL - WORLD APPROACH"
for 6th Semester Artificial Intelligence & Data Science Students
29.03.2023 - 02.04.2023
VENUE : EMBEDDED SYSTEM LAB
Staff coordinators
Ms. Ancy K Sunny , AP CSE
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Dr. Manoj V Thomas,
Professor & Programme Coordinator (ADS)
Resource Persons:
Dr. Premjith B
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore
Mr. Sajith Variyar V.V
AP, CEN, Amrita Vishwa Vidyapeetham, Coimbatore

Introduction

This add-on course was conducted for Sixth Semester Artificial Intelligence and Data Science students, to provide the core fundamentals behind the field of Deep Learning. It introduces major deep learning algorithms, the problem settings, and their applications to solve real world problems. This course covers basics and hands on approach to neural networks, understanding how CNN and RNN works with common examples.

The convenor of this course was Dr.Manoj V. Thomas, Professor, ADS and the course was organized by Ms.Ancy K Sunny, Assistant Professor, ADS and Ms. Thriphi P Balakrishnan, Assistant Professor, ADS and the sessions were handled by Dr. Premjith B and Mr. Sajith Variyar V.V, Assistant Professors, Center for Computational Engineering and Networking, Amrita Vishwa Vidyapeetham, Coimbatore. All the students (32 No.s) of S6 ADS participated in the course.

This report provides an overview of the course including syllabus, course activities, outcomes and assessment tools used.

Day 1 (29/03/2023)

The first day of the course was handled by Dr.Premjith B, with an introduction about machine learning and topics based backward propagation and Encoder-Decoder Model, Neural Language Model (NLM), Recurrent Neural Network (RNN), and transformer networks.

In second session, basic code and function in neural network and convolutional network was introduced to the students and handson session was provided for backward propagation and Encoder-Decoder Model, Neural Language Model (NLM), Recurrent Neural Network (RNN), and transformer networks

Day 2 (30/03/2023)

On the second day, Mr. Sajith Variyar handled a session on CNN networks, medical image processing techniques such as MRI, and Unet for medical image segmentation. The session was aimed at providing insights into the fields of medical imaging and how it is being transformed by deep learning techinques. He explained how CNNs work and how they are used for tasks such as image classification, object detection, and segmentation. He also discussed various types of CNN architectures and its implementation.

The second part of the session focused on medical image processing techniques, particularly Magnetic Resonance Imaging (MRI). Mr. Sajith Variyar explained the basic principles of MRI and how it is used to create images of internal organs and tissues. He also discussed common MRI image artifacts and how to address them.

The final part of the session covered Unet, a type of CNN architecture that is commonly used for medical image segmentation. Mr. Sajith Variyar explained how Unet works and how it can be trained on medical image datasets to segment regions of interest. He also discussed some of the challenges associated with medical image segmentation, such as class imbalance and limited training data. He also demonstrated how to use UNet for the medical image segmentation using the Python programming language.

Day 3 (31/03/2023)

On third day, the first session was on the Encoder-Decoder Model and Attention Mechanism, which are widely used in NLP tasks such as machine translation, text summarization, and image captioning. Mr. Premjith B explained the basics of these models and their working principles, using examples and case studies to illustrate their applications.

The second session was on Neural Language Models (NLM), which are used to predict the probability distribution of the next word in a sequence of words. Mr. Premjith B explained the different types of NLMs, such as feedforward neural networks, RNNs, and transformers, and their strengths and limitations. He also discussed the training and evaluation of NLMs, using examples and case studies to illustrate their applications.

The third session was on Recurrent Neural Network (RNN), which is a type of neural network that can process sequential data. Mr. Premjith B explained the working principles of RNNs, the challenges associated with training them, and their applications in NLP and other fields. He also discussed the different types of RNNs, such as simple RNN, LSTM, and GRU, and their strengths and limitations.

The final session was on transformer networks, which are a type of neural network that can process sequential data in parallel. Mr. Premjith B explained the working principles of transformer networks, their advantages over RNNs, and their applications in NLP and other fields. He also discussed the different types of transformer networks, such as BERT and GPT, and their strengths and limitations.

Day 4 (01/04/2023)

On fourth day, students were assigned with two projects :

1. Implement deep learning models for sentiment analysis uisng Recurrent Neural Network, Long Short Term Memory Networks, and Gated Recurrent Unit.
2. Build simple CNN network which can classify the leaves given in above dataset. The Dataset given in above link contains 38 different diseases (38 class). Train the CNN model to classify different diseases.

This covered the fifth couse outcome(CO5).

Day 5 (02/04/2023)

On fifth day, assessment was done. A quiz was conducted covering all the topics introduced in the session which focussed on course outcomes, CO1 to CO4.

A project presentation was done by students, in which they explained their work. Also, a feedback was taken from students which covered all the POs and PSOs.

Curriculum

Mudule I

Introduction to Deep Learning - Introduction to Deep Learning-Difference between Machine Learning and Deep Learning

Module II

Deep Neural Network (DNN) - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers- Image classification using DNN (Including hands-on session)

Module III

Deep learning for Computer Vision - Convolutional Neural Network - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN- CNN applications for biomedical image data (Including hands-on session)

Module IV

Deep Learning for Natural Language Processing - Sequential data - How to process sequential data? - Recurrrent Neural Network (RNN)- Long Short - Term Memory (LSTM) Networks- Text classification using RNN and LSTM (Including hands-on session) - Encoder - Decoder Architecture for Machine Translation

SYLLABUS

Deep Learning - A real-world approach

Course Description

This course aims to present the core fundamentals behind the field of Deep Learning. It introduces major deep learning algorithms, the problem settings, and their applications to solve real world problems. This course covers basics and hands on approach to neural networks, understanding how CNN and RNN works with common examples.

Course Objective

- Introduces the fundamental concepts of Deep Learning and its applications by Providing an overview of Deep Learning techniques like Artificial Neural Networks, Convolutional Neural Networks, and Recurrent Neural Networks.
- Provides Hands-on experience with popular Deep Learning frameworks.
- Understanding the challenges and limitations of Deep Learning and how to overcome them.
- Developing problem-solving skills and the ability to design and implement Deep Learning solutions to real-world problems.

Course Outcomes (CO)

At the end of the course students will be able

1. To differentiate between various machine learning and deep learning algorithms.
2. To apply DNN for image classification.
3. To apply CNN in Biomedical field.
4. To build RNN ad LSTM models for different NLP applications.
5. To develop a solution for a real-world problem that demonstrates a thorough understanding of deep learning principles and concepts, achieved through effective teamwork.

CO-PO/PSO Mapping

COs	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO1	PSO2
CO1	3	3	3	3	1								3	3
CO2	3	3	3	3	2								3	3
CO3	3	3	3	3	2								3	3
CO4	3	3	3	3	2								3	3
CO5	3	3	3	3	3	3	3	3	3	3	3	3	3	3

Syllabus

Unit	Details	Hours
1	Introduction to Deep Learning - Introduction to Deep Learning - Difference between Machine Learning and Deep Learning	4
2	Deep Neural Network (DNN) - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers- Image classification using DNN (Including hands-on session)	6
3	Deep learning for Computer Vision - Convolutional Neural Network - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN- CNN applications for biomedical image data (Including hands-on session)	7
4	Deep Learning for Natural Language Processing - Sequential data - How to process sequential data? - Recurrent Neural Network (RNN)- Long Short - Term Memory (LSTM) Networks- Text classification using RNN and LSTM(Including hands-on session) - Encoder - Decoder Architecture for Machine Translation	7
Course Project and Evaluation		6

Text Books:

1. Ian J. Goodfellow, Yoshua Bengio, Aaron Courville, "Deep Learning", MIT Press, 2017.
2. Francois Chollet, "Deep Learning with Python", Manning Publications, 2018

References:

1. Phil Kim, "Matlab Deep Learning: With Machine Learning, Neural Networks and Artificial Intelligence", Apress, 2017.
2. Ragav Venkatesan, Baoxin Li, "Convolutional Neural Networks in Visual Computing", CRC Press, 2018.
3. Navin Kumar Manaswi, "Deep Learning with Applications Using Python", Apress, 2018.
4. Joshua F. Wiley, "R Deep Learning Essentials", Packt Publications, 2016.

Lesson Plan

Day	Plan
29/03/2023	**1. Introduction to Deep Learning** - Introduction to Deep Learning - Difference between Machine Learning and Deep Learning **2. Deep Neural Network (DNN)** - Perceptron - Activation function - Parameters of a neural network - Loss functions - Optimizers - Image classification using DNN (Including hands-on session)
30/03/2023	**Deep learning for Computer Vision - Convolutional Neural Network** - Convolutional Neural Network (CNN) - Components of a CNN - Transfer learning with CNN

Day	Plan
	- CNN applications for biomedical image data (Including hands-on session)
31/03/2023	**Deep Learning for Natural Language Processing** - Sequential data - How to process sequential data? - Recurrrent Neural Network (RNN) - Long Short - Term Memory (LSTM) Networks - Text classification using RNN and LSTM (Including hands-on session) - Encoder - Decoder Architecture for Machine Translation
01/04/2023	Project based on NLP and image processing
02/04/2023	Presentation and Feedback

Assessment tools used

- For the assessment of course outcomes (CO1 to CO4), a test was conducted for the students based on the topics which they learned during the session.
- For the assessment of course outcome CO5, two projects were assigned to students. Students implemented the projects and was evaluated by project presentation of students using following rubrics:
- Assessment of POs/PSOs, was done by collecting feedback from students.

Participant Attendance

Vimal Jyothi Engineering College Chemperi - 670632				
Artificial Intelligence and Data Science				
Ad-on Course - "Deeplearning - A real world approach"				
Roll no	**Register no**	**Name**	**29/03/2023 FN**	**29/03/2023 AN**
1	VML20AD001	AARSHA ANIL		
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS		
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL		
7	VML20AD007	CAMAY JILLS	Absent	Absent
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR		
12	VML20AD012	HAMNA RAFEEQ		
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
15	VML20AD015	MARWA ABDUL RAZAK		
16	VML20AD016	MAZIN MURSHID		
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE		
18	VML20AD018	NANDHAJ VIJAYAN		
19	VML20AD019	NAVANEETHA P NAMBIAR		
20	VML20AD020	RIDHA GAFOOR	Absent	Absent
21	VML20AD021	ROSE BENNY		
22	VML20AD022	SHARON RAJISH JOSEPH		
23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P		
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

Vimal Jyothi Engineering College Chemperi - 670632				
Artificial Intelligence and Data Science				
Ad-on Course - "Deeplearning - A real world approach"				
Roll no	Register no	Name	30/03/2023 FN	30/03/2023 AN
1	VML20AD001	AARSHA ANIL		
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS		
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL		
7	VML20AD007	CAMAY JILLS		
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR		
12	VML20AD012	HAMNA RAFEEQ		
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
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20	VML20AD020	RIDHA GAFOOR		
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23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P		
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

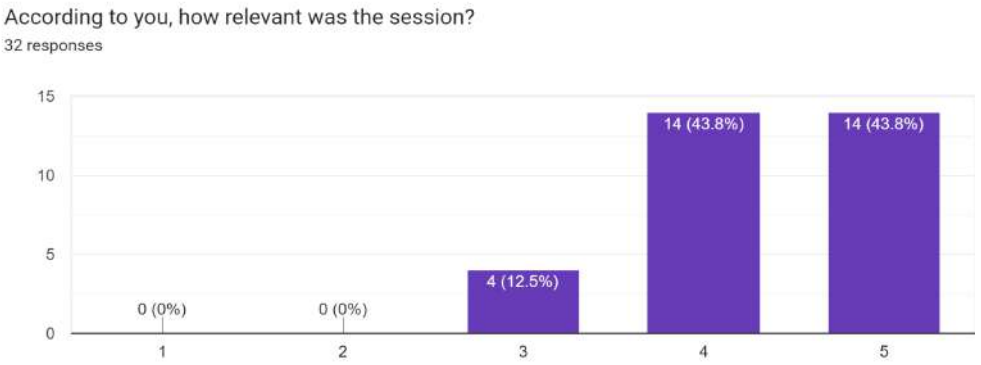
Vimal Jyothi Engineering College Chemperi - 670632				
Artificial Intelligence and Data Science				
Ad-on Course - "Deeplearning - A real world approach"				
Roll no	Register no	Name	31/03/2023 FN	31/03/2023 AN
1	VML20AD001	AARSHA ANIL		
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS	Absent	Absent
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL	Absent	Absent
7	VML20AD007	CAMAY JILLS		
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR	Absent	Absent
12	VML20AD012	HAMNA RAFEEQ	Absent	Absent
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
15	VML20AD015	MARWA ABDUL RAZAK		
16	VML20AD016	MAZIN MURSHID		
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE		
18	VML20AD018	NANDHAJ VIJAYAN		
19	VML20AD019	NAVANEETHA P NAMBIAR		
20	VML20AD020	RIDHA GAFOOR	Absent	Absent
21	VML20AD021	ROSE BENNY		
22	VML20AD022	SHARON RAJISH JOSEPH	Absent	
23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P	Absent	Absent
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

Vimal Jyothi Engineering College Chemperi - 670632				
Artificial Intelligence and Data Science				
Ad-on Course - "Deeplearning - A real world approach"				
Roll no	**Register no**	**Name**	**01/04/2023 FN**	**01/04/2023 AN**
1	VML20AD001	AARSHA ANIL		
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS		
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL		
7	VML20AD007	CAMAY JILLS	Absent	Absent
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR		
12	VML20AD012	HAMNA RAFEEQ	Absent	Absent
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
15	VML20AD015	MARWA ABDUL RAZAK		
16	VML20AD016	MAZIN MURSHID		
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE		
18	VML20AD018	NANDHAJ VIJAYAN		
19	VML20AD019	NAVANEETHA P NAMBIAR		
20	VML20AD020	RIDHA GAFOOR		
21	VML20AD021	ROSE BENNY		
22	VML20AD022	SHARON RAJISH JOSEPH		
23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P		
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

Vimal Jyothi Engineering College Chemperi - 670632				
Artificial Intelligence and Data Science				
Ad-on Course - "Deeplearning - A real world approach"				
Roll no	**Register no**	**Name**	**02/04/2023 FN**	**02/04/2023 AN**
1	VML20AD001	AARSHA ANIL		
2	VML20AD002	ALANA ANCE JOHN		
3	VML20AD003	ALAN THOMAS		
4	VML20AD004	AMRITHA PRADEEP		
5	VML20AD005	ANN RIYA JAISON		
6	VML20AD006	AUSTINE S MANUEL		
7	VML20AD007	CAMAY JILLS		
8	VML20AD008	CHANDHANA RAJEEVAN		
9	VML20AD009	CHRISTEENA J ROSE		
10	VML20AD010	DENI THOMAS		
11	VML20AD011	DEVA NAIR		
12	VML20AD012	HAMNA RAFEEQ		
13	VML20AD013	JASHLIN S SIMON		
14	VML20AD014	KIRAN PRASAD PP		
15	VML20AD015	MARWA ABDUL RAZAK		
16	VML20AD016	MAZIN MURSHID		
17	VML20AD017	MOHAMMED ZAIN RAFEEQUE		
18	VML20AD018	NANDHAJ VIJAYAN		
19	VML20AD019	NAVANEETHA P NAMBIAR		
20	VML20AD020	RIDHA GAFOOR		
21	VML20AD021	ROSE BENNY		
22	VML20AD022	SHARON RAJISH JOSEPH		
23	VML20AD023	SHYAMITH MANNAMBETH		
24	VML20AD024	SNEHAL VINOD T		
25	VML20AD025	SOURAV C		
26	VML20AD026	STEPHIN LIJI		
27	VML20AD027	THAHA MUHAMMED YASEEN		
28	VML20AD028	THALHAH ANAS		
29	VML20AD029	VAIBHAV RAJESH		
30	VML20AD030	VAISHAKH P		
31	VML20AD031	VISHNUPRIYA N		
32	LVML20AD032	HARSHA M		

Feedback

1.



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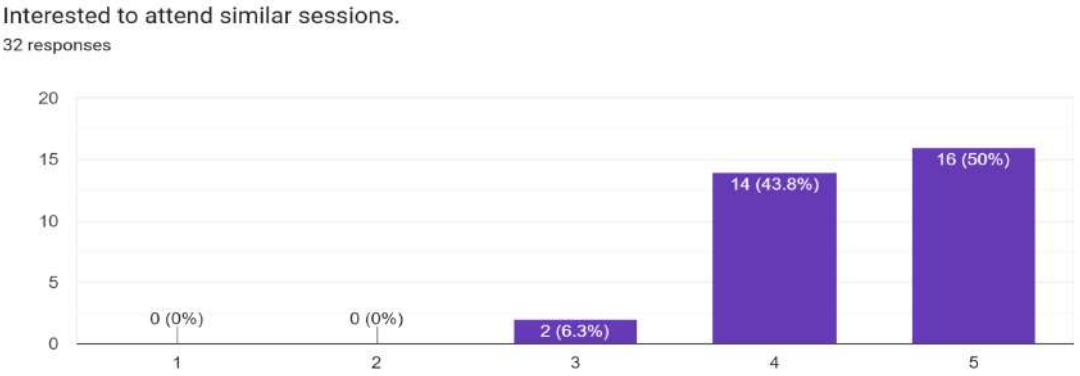

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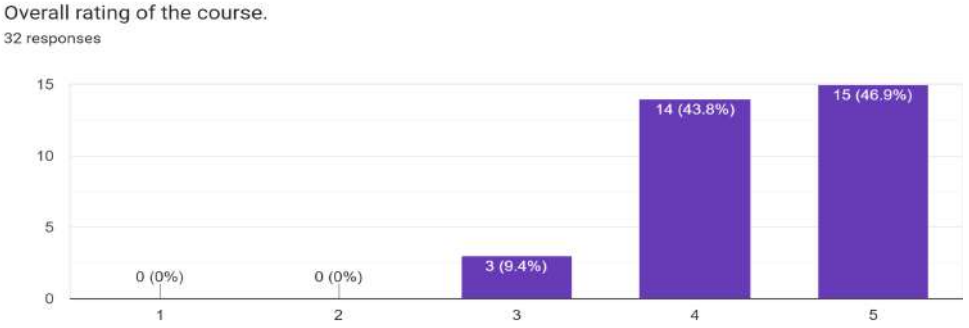

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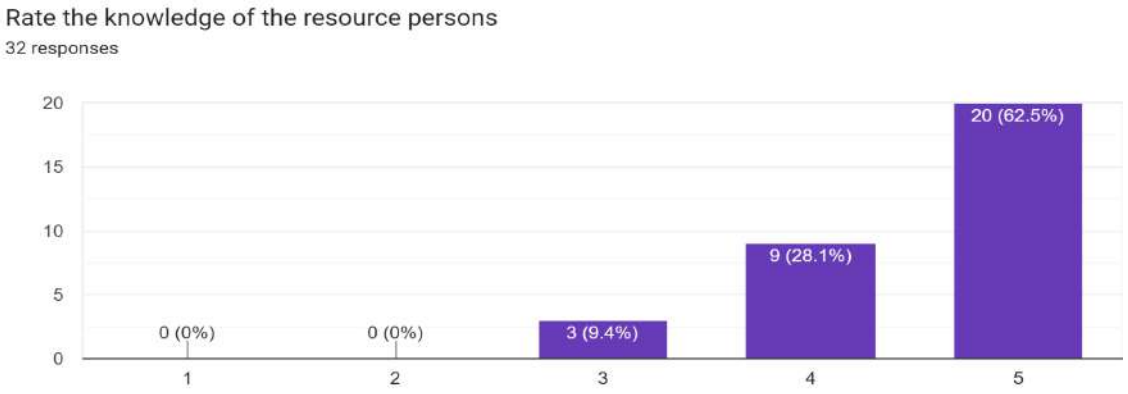
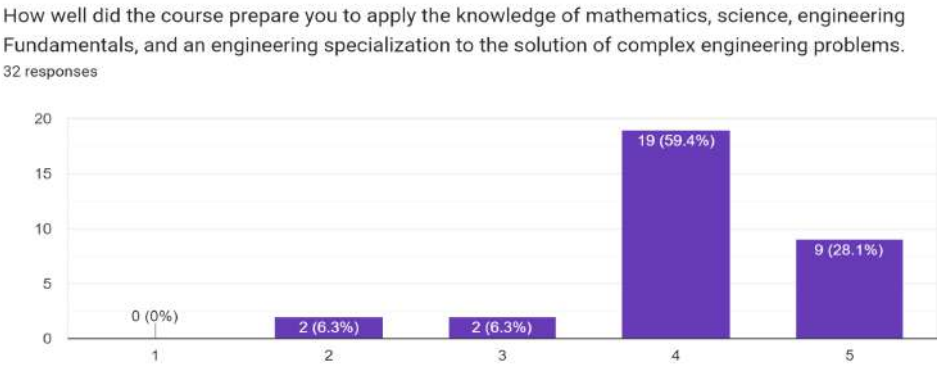
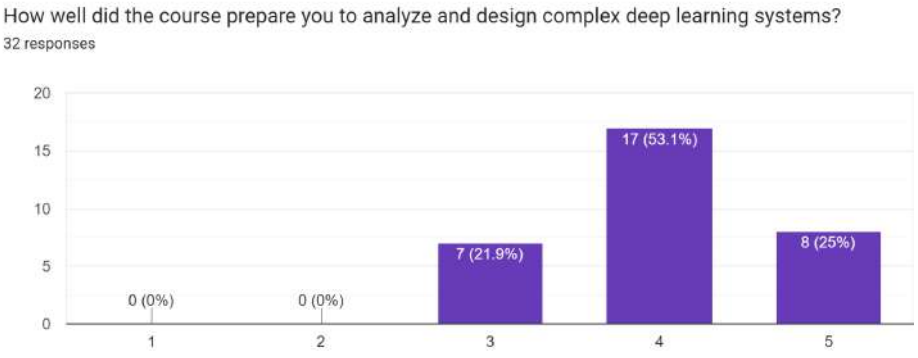

Rate the knowledge of the resource persons
32 responses
20
15
10
5
0
0 (0%)
0 (0%)
3 (9.4%)
9 (28.1%)
20 (62.5%)
1
2
3
4
5

5.


How well did the course prepare you to apply the knowledge of mathematics, science, engineering Fundamentals, and an engineering specialization to the solution of complex engineering problems.
32 responses
20
15
10
5
0
0 (0%)
2 (6.3%)
2 (6.3%)
19 (59.4%)
9 (28.1%)
1
2
3
4
5

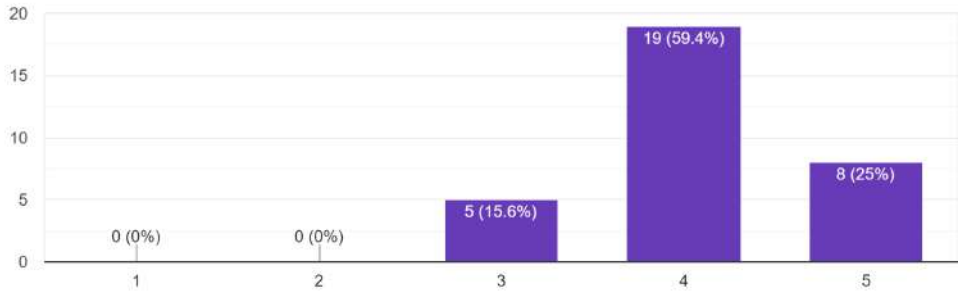
6.


How well did the course prepare you to analyze and design complex deep learning systems?
32 responses
20
15
10
5
0
0 (0%)
0 (0%)
7 (21.9%)
17 (53.1%)
8 (25%)
1
2
3
4
5

7.

How well did the course prepare you to design solutions for complex engineering problems using apply deep learning?

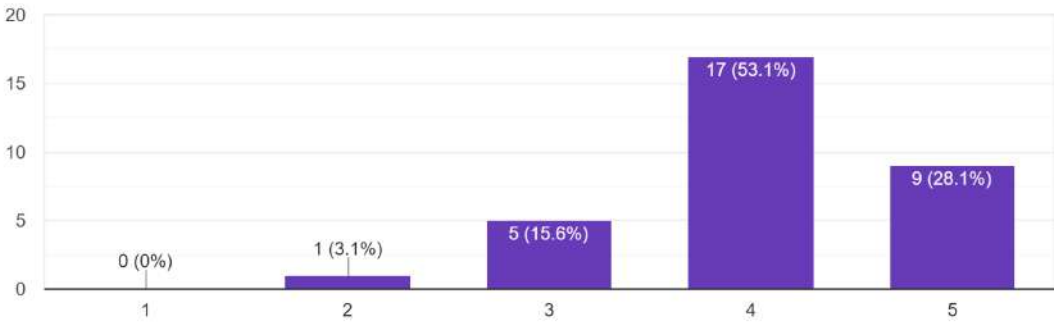
32 responses



8.

How well did the course helps you to conduct Investigations of Complex Problems?

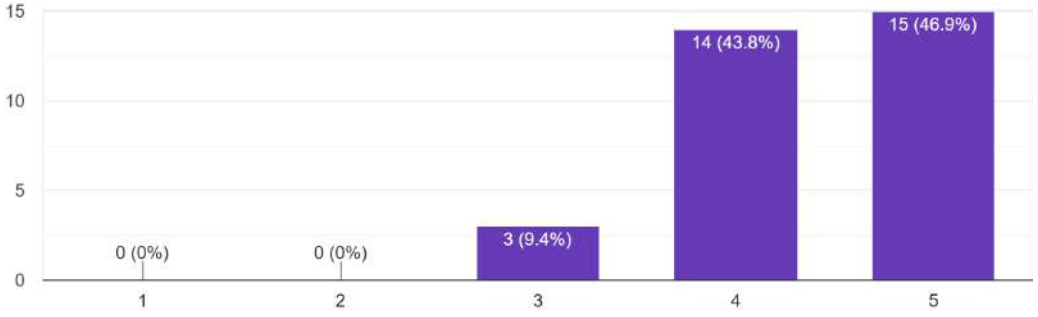
32 responses



9.

Did the session make you aware of any modern tools used in machine learning?

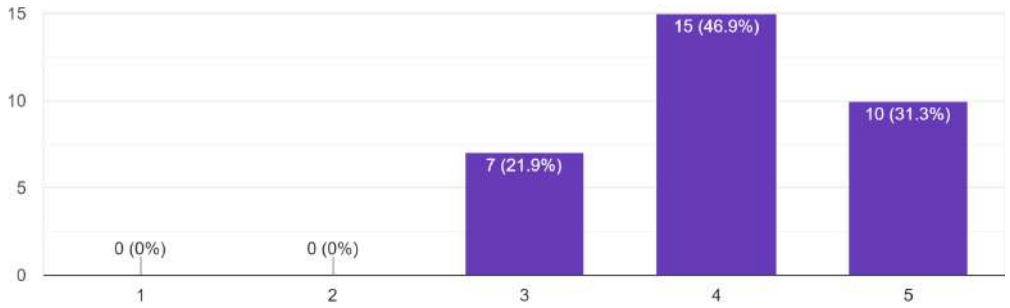
32 responses



10.

How well did the course prepare you to collaborate with other professionals and stakeholders in the development and deployment of deep learning systems?

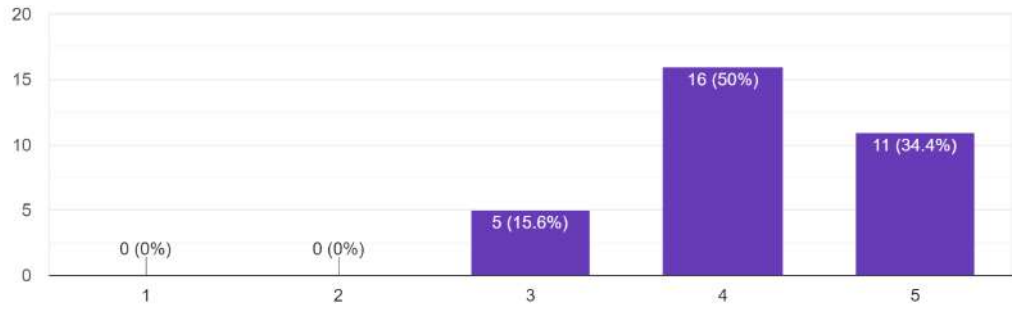
32 responses



11.

How well did the course prepare you to understand the impact of the professional engineering solutions in societal and environmental contexts, ...owledge of, and need for sustainable development?

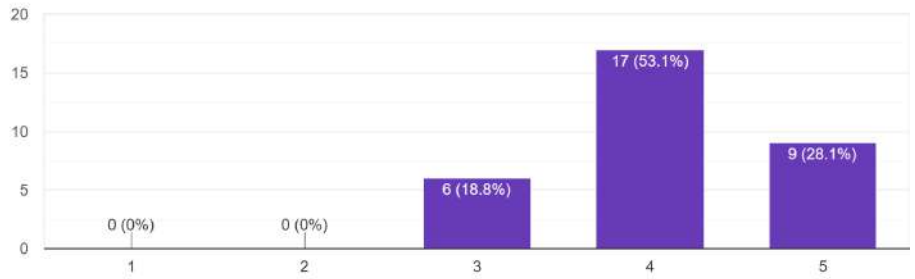
32 responses



12.

How well did the course prepare you to identify and address ethical and social issues related to deep learning applications?

32 responses



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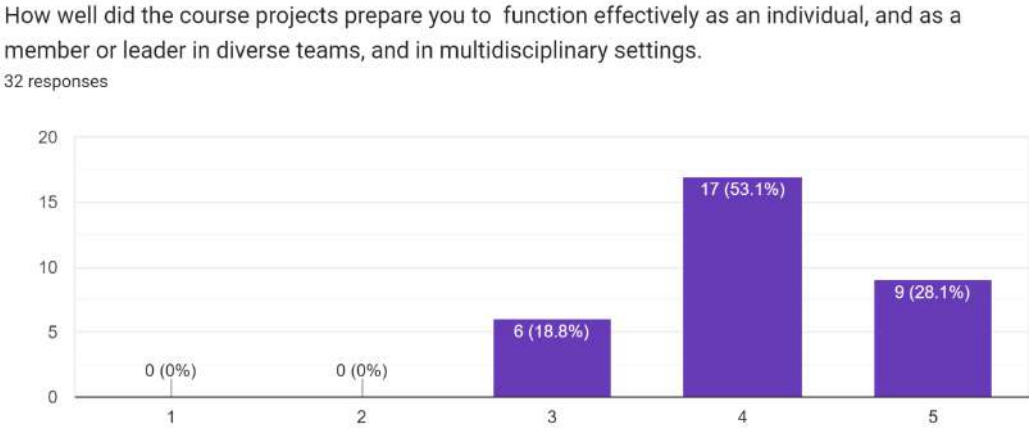
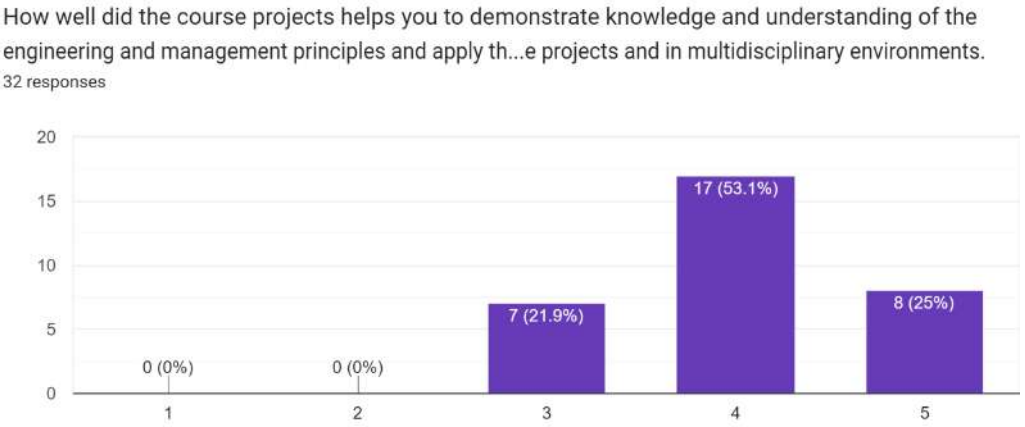

How well did the course projects prepare you to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
32 responses
20
15
10
5
0
0 (0%)
0 (0%)
6 (18.8%)
17 (53.1%)
9 (28.1%)
1
2
3
4
5

14.


How well did the course develop your communication skills, including the ability to effectively convey complex deep learning concepts and results?
32 responses
96.9%
Yes
No

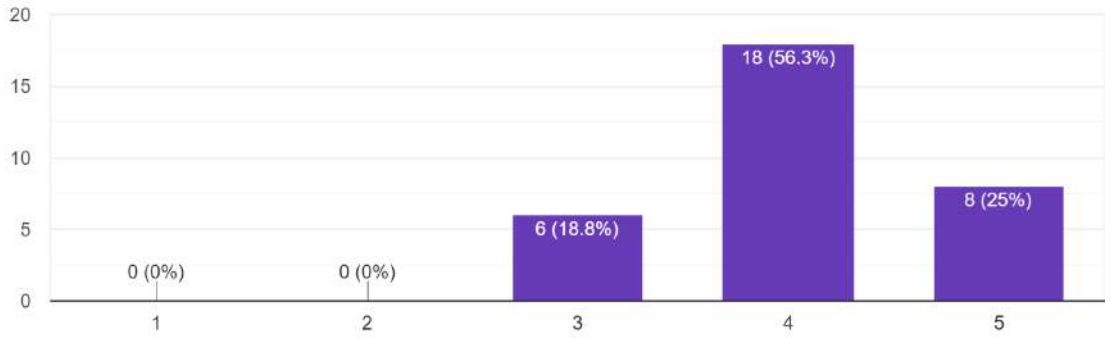
15.


How well did the course projects helps you to demonstrate knowledge and understanding of the engineering and management principles and apply th...e projects and in multidisciplinary environments.
32 responses
20
15
10
5
0
0 (0%)
0 (0%)
7 (21.9%)
17 (53.1%)
8 (25%)
1
2
3
4
5

16.

How well did the course projects helps you to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

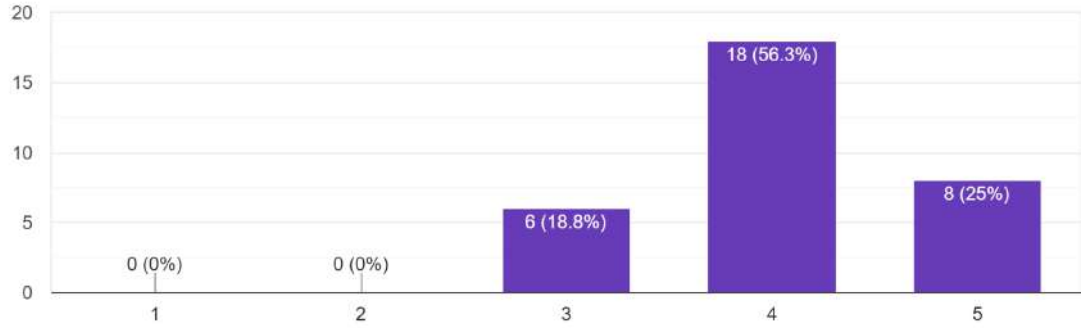
32 responses



17.

How well did the course improve your ability to apply the principles of computing theory and algorithms with proficiency in Artificial Intelligen...he real-world problems and challenges of the future?

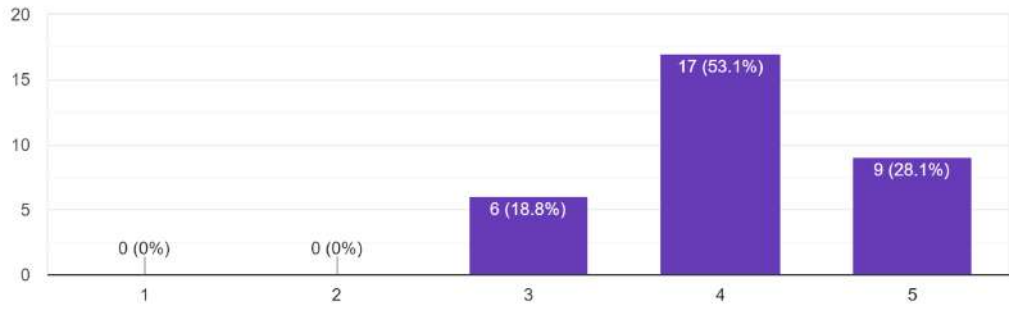
32 responses



18.

How well did the course improve your ability to demonstrate interdisciplinary skills with sound knowledge in the principles of Artificial Intelligen... develop quality products meeting global standards.

32 responses



Sample Certificate

VIMAL JYOTHI
ENGINEERING COLLEGE
JYOTI NAGAR, CHEMPERI(PO), KANNUR

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

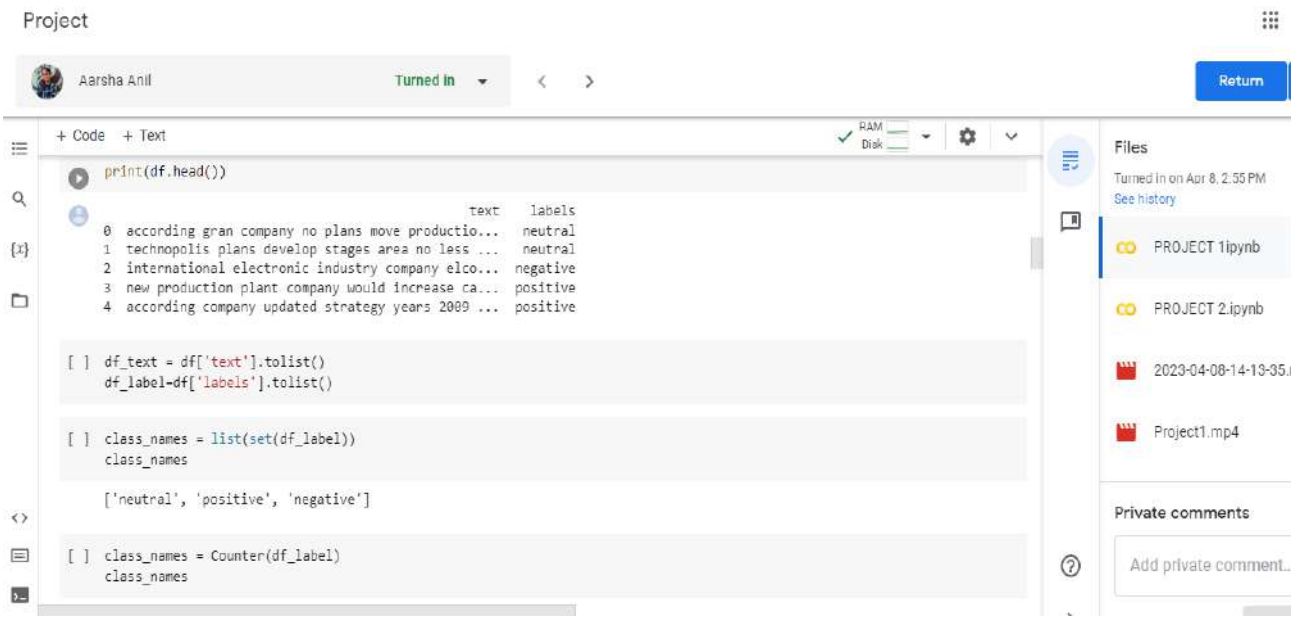
CERTIFICATE OF PARTICIPATION

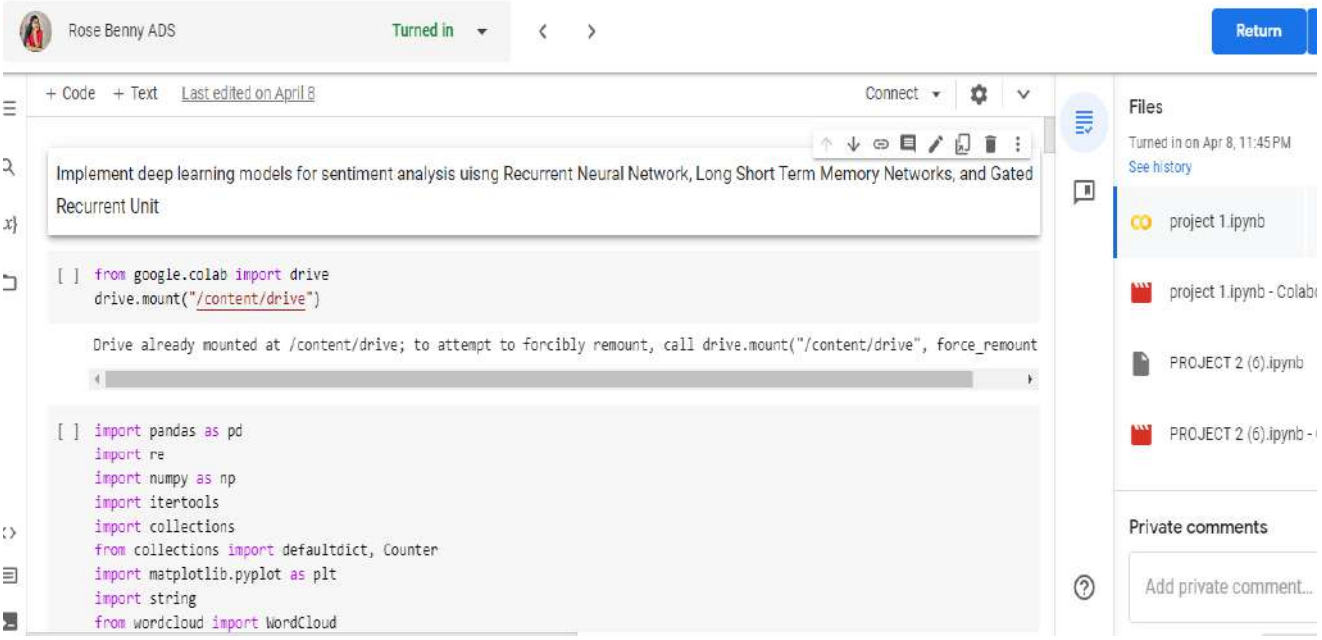
This is to certify that *Rose Benny* of Sixth Semester B.Tech Artificial Intelligence and Data Science, had participated in an add-on course on "Deep Learning - A Real World Approach" from 29th March 2023 to 02nd April 2023.

Dr.Manoj V Thomas
Convenor

Dr.Benny Joseph
Principal

Project done by students





Snippets

VIMAL JYOTHI ENGINEERING COLLEGE, CHEMPERI

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Report on value added course

"Cyber Security Analytics for S6 CSE- A, B,C (2020-24 BATCH)

VJEC COMPUTER SCIENCE ENGINEERING DEPARTMENT PRESENTS

CYBER SECURITY ANALAYTICS

In association with

RED TEAM HACKER ACADEMY

COURSE CODE:ADCS601 DURATION:5 DAYS (30 HRS) ORDER NO:VJ/CSE/AC/2023/3

MARCH 22-26

FOR 6TH SEMESTER COMPUTER SCIENCE &ENGINEERING STUDNENTS

CONVENOR:Ms.DIVYA B (HOD)

STAFF COORDINATORS:Ms.NAJIRA SALAM

Ms.SREEDAYA M

FUNDED AND SPONSORED BY VIMAL JYOTHI ENGINEERING COLLEGE

ADD-ON COURSE REPORT ON CYBER SECURITY ANALYTICS FOR S6 CSE-A, B, C STUDENTS

An Add-on Course on Cyber Security Analytics was organized on March 22, 23, 24, 25, 26 at the Computer Center and Software lab of the CSE department. The aim of this course was to provide additional training to the 6th semester students on various aspects of Cyber Security. The course covered various topics including introduction to networking and cyber security, tools used in cyber security domain and understanding on social engineering security.

This report provides a summary of the course activities and its outcomes:

Day 1 (22nd March):

The Course began with an introduction to networking. The trainer explained about the different networking devices, OSI Model and subnetting. By the end of the day, the students had a good understanding of different protocols used in networking and the basic terminologies related to networks and cyber security.

Day 2 (23rd March): On the second day of the course, the students were introduced to Linux OS. The trainer explained various types of Linux, Linux file system and virtualization. Students were asked to install Kali Linux on their laptops/PCs and they got training in exploring Kali Linux.

Day 3 (24th March): On the third day of the course students were introduced to TOR network, TOR Bridge and VPN. The students were given hands-on experience to use different open source intelligence techniques like Sherlock, Google hacking and waybackurl. The different vulnerability assessment techniques like Nikto, zap were taught by the instructor

Day 4 (25thMarch): On the fourth day of the course, the students were introduced to different social engineering attacks. The students were guided to hack the Linux system and they got an opportunity to work with BurpSuite application security testing software.

Day 5 (26th March): On the fifth day of the program, the students developed simple cyber security related projects. The trainer discussed various career opportunities in the field of cyber security and networking.

The course was executed by Red Team Hacker Academy, which is a leading organization in the field of cyber security. The instructors were highly knowledgeable and experienced in their respective fields and provided valuable insights into the latest developments in networking and cyber security. Overall, this value-added course has helped students to gain the knowledge and skills that will be invaluable to their future academic and professional pursuits.

Curriculum

CYBER SECURITY ANALYTICS

Course Description: The objective of the course is to equip the learners to leverage Linux for ethical hacking practice. Certified Cyber Security Analyst Program focuses on developing the skill set which meets the industry requirements. Starting from the Essentials, the program will equip the students the best in industry knowledge, tactics and toolsets from Attack to Defense.

Course Objective: Basic knowledge in Cyber Security and Ethical hacking practices.

Course Outcomes: After the completion the course the student will be able to

CO1	Familiarize the essentials of computer networks and Linux for security features
CO2	Understand TOR network and VPN
CO3	Familiarize different tools used in cyber security domain
CO4	Understand social engineering security and demonstrate its implementation
CO5	Demonstrate Cyber–Security Operation Center (SOC) to observe organizational cyber defense

Mapping Of Course Outcomes With Program Outcomes

CO-PO Mapping (S: Strong, M: Medium, L: Low)

COs	PO 1	PO2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2
CO1	3	2	2	-	3	-			3	2		3	2	2
CO2	3	3	2	2	3	-			3	2		3	2	2
CO3	3	3	3	3	3	-			3	2		3	2	2
CO4	3	3	3	3	3	-			3	2		3	2	2
CO5	3	3	3	3	3	2			3	2		3	2	2

Assessment Pattern:-

Total Marks: 50 Marks

Mini Project: 40 Marks

Quiz: A total of 10 questions carrying 1 mark each.

Abstract POs defined by National Board of Accreditation

#PO	BroadPO	#PO	BroadPO
PO1	EngineeringKnowledge	PO7	EnvironmentandSustainability
PO2	ProblemAnalysis	PO8	Ethics
PO3	Design/Development Solutions	PO9	Individualandteamwork
PO4	Conduct Investigations Of complex problems	PO10	Communication
PO5	Modern Tool Usage	PO11	Project Management andFinance
PO6	TheEngineerand Society	PO12	Lifelong learning

SYLLABUS

Module	Description	Hours
1	**NETWORKS AND CYBERSECURITY ESSENTIALS**: Introduction to the Networks, Networking Devices, Basic Terminologies, OSI Model, Protocols, IP and Subnetting **LINUX FOR SECURITY PROFESSIONALS**: Introduction to Linux, Types of Linux, Linux File System, Virtualization, Installing Kali Linux, Basic Linux Commands, Exploring Kali Linux	6
2	**ANONYMITY AND VPN:** Introduction to TOR Network, TOR Browser, TOR Bridge, VPN **OPEN-SOURCE INTELLIGENCE:** Sherlock, Google Hacking, spiderfoot, maltego, wayback url. .	6
3	**ART OF SCANNING AND PROTOCOL ENUMERATIONS:** Scanning vs Enumeration, Scanning with NMAP, netdiscover, arpscan. **VULNERABILITY ASSESSMENT:** Vulnerability Assessment using Nikto, nuicle, zap. **PASSWORD CRACKING:** Introduction to Password Cracking, Methods of Password Cracking, Password Cracking with Hydra.	6
4	**SOCIAL ENGINEERING ATTACKS:** Introduction to Social Engineering, Types of Social Engineering Attacks, Web App Cloning with SEToolkit. **SYSTEM HACKING AND POST EXPLOITATIONS:** Hacking a Linux System, Post Exploitation Techniques. **APPLICATION SECURITY OVERVIEW:** Introduction to Web Application Penetration Testing, OWASP Top 10, Getting Started with Burp Suite.	6
5	**SECURITY OPERATIONS AND MANAGEMENT :** Why SOC is Required, How a SOC works and Best Practices, Security Infrastructure, Prevention and Operations, Security Incident Management. **SECURITY INFORMATION AND EVENT MANAGEMENT:** SIEM Implementation, Splunk Implementation and Onboarding Machines, Log Search in Splunk, Logs Correlation. **CAPTURE THE FLAG CHALLENGES AND COMPETITIONS:** What is Capture the Flag, Types of Challenges in CTF, Resource	6

Teaching plan

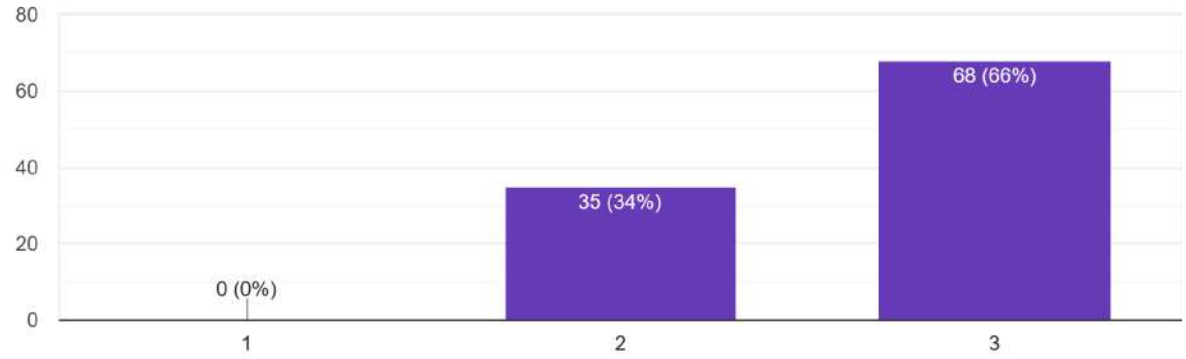
No	Topic	No. of Hours (30)
Module 1: NETWORKS AND CYBERSECURITY ESSENTIALS (6 hrs)		
1.1	Introduction to Networks, Networking devices	1 hour
1.2	Basic Terminologies, OSI Model	1 hour
1.3	Protocols, IP and Subnetting	1 hour
1.4	Introduction to Linux, Types of Linux	1 hour
1.5	Linux File System, Virtualization	1 hour
1.6	Installing Kali Linux, Basic Linux Commands, Exploring Kali Linux	1 hour
Module 2: ANONYMITY AND VPN (6 hrs)		
2.1	Introduction to TOR Network	1 hour
2.2	TOR Browser, TOR Bridge,	1 hour
2.3	Introduction to VPN	1 hour
2.4	Open-Source Intelligence using Sherlock	1 hour
2.5	Open-Source Intelligence using Google hacking, spiderfoot	1 hour
2.6	Open-Source Intelligence using maltego, waybackurl	1 hour
Module 3: ART OF SCANNING AND PROTOCOL ENUMERATIONS (6 hrs)		
3.1	Scanning vs Enumeration	1 hour
3.2	Scanning with NMAP, netdiscover, arpscan	1 hour
3.3	Vulnerability Assessment using Nikto, nuicle, zap	1 hour
3.4	Introduction to Password Cracking	1 hour
3.5	Methods of Password Cracking	1 hour
3.6	Password Cracking with Hydra	1 hour
Module 4: SOCIAL ENGINEERING ATTACKS (6 hrs)		
4.1	Introduction to Social Engineering,	1 hour
4.2	Types of Social Engineering Attacks	1 hour
4.3	Web App Cloning with SEToolkit	1 hour
4.4	Hacking a Linux System, Post Exploitation Techniques.	1 hour

4.5	Introduction to Web Application Penetration Testing	1 hour
4.6	OWASP Top 10, Getting Started with Burp Suite.	1 hour
Module 5: SECURITY OPERATIONS AND MANAGEMENT (6 hrs)		
5.1	Why SOC is Required, how a SOC works and Best Practices	1 hour
5.2	Security Infrastructure, Prevention and Operations	1 hour
5.3	Security Incident Management	1 hour
5.4	SIEM Implementation, Splunk Implementation and Onboarding Machines	1 hour
5.5	Log Search in Splunk, Logs Correlation	1 hour
5.6	What is Capture the Flag, Types of Challenges in CTF, Resource	1 hour

Feedback from students:

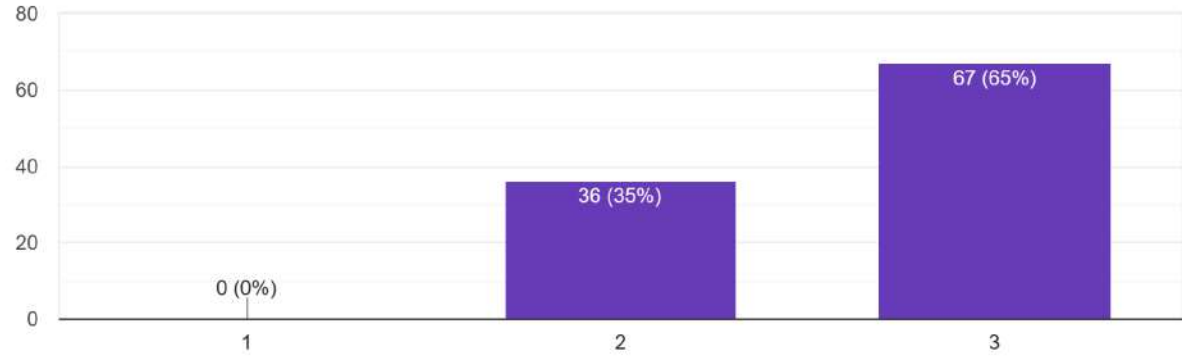
On a scale of 1 to 3 how do you rate the add-on course classes? 1 - Poor 2 - Satisfactory 3 - Excellent

103 responses



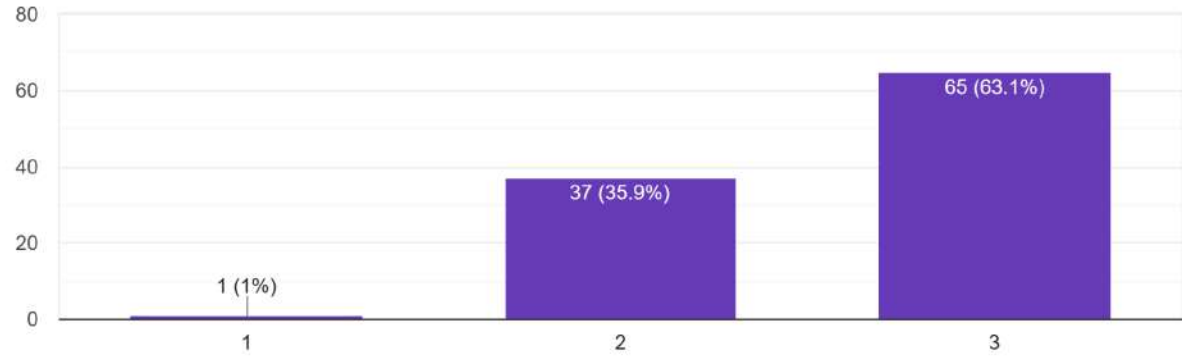
The software and tools discussed during this event were relevant and met your curriculum gaps.(PO1,PO3,PO5) 1 - Poor, 2 - Satisfactory, 3 - Excellent

103 responses



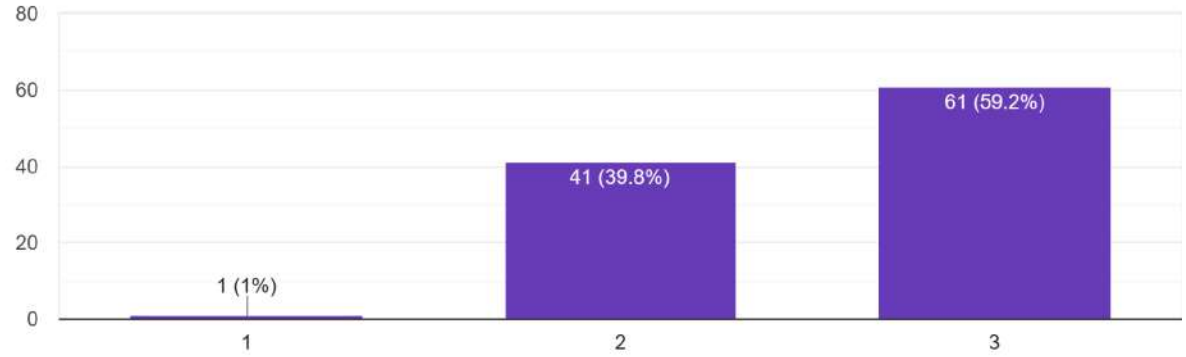
You got sufficient opportunity for exploring your creativity, technical skills and improving your design ideas on Cyber Security? (PO3, PO5) 1 - Poor 2 - Satisfactory 3 - Excellent

103 responses



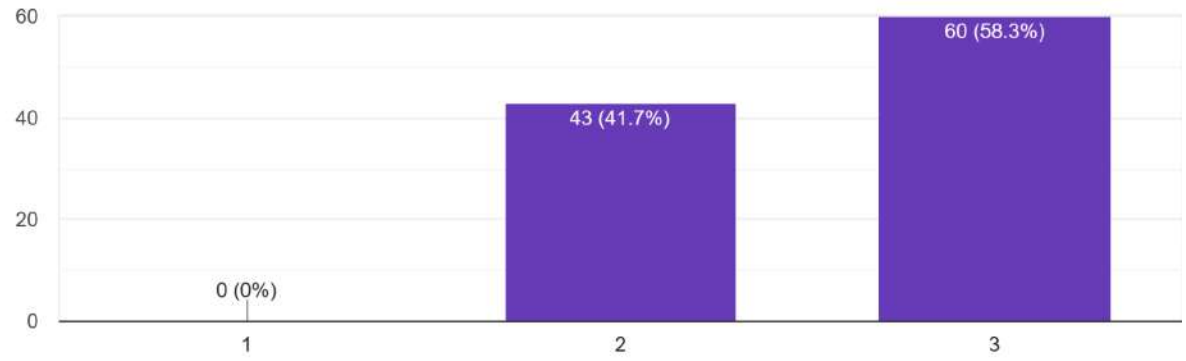
Were you able to perform effectively as an individual and as a team, and follow the instructions? ? (PO9, PO11, PO12) 1 - Poor 2 - Satisfactory 3 - Excellent

103 responses



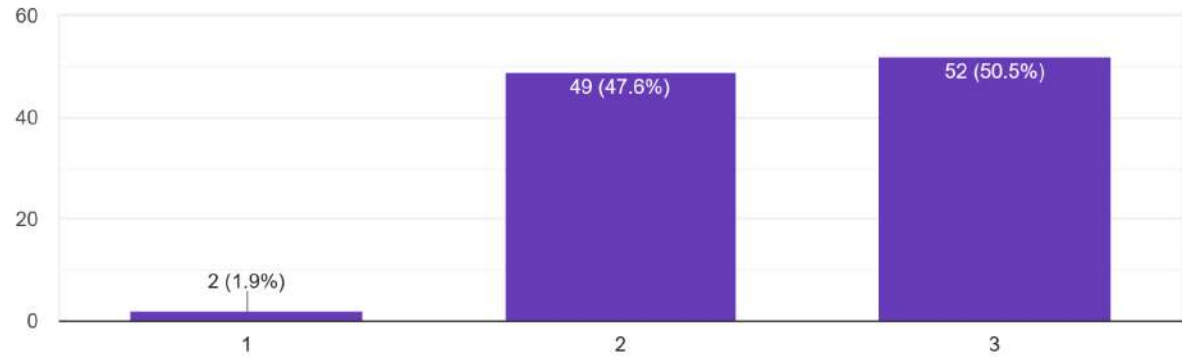
The software tools helped you in designing and developing a demonstrable project, which can be used in industrial sectors. (PO5, PO12) 1 - Poor 2 - Satisfactory 3 - Excellent

103 responses

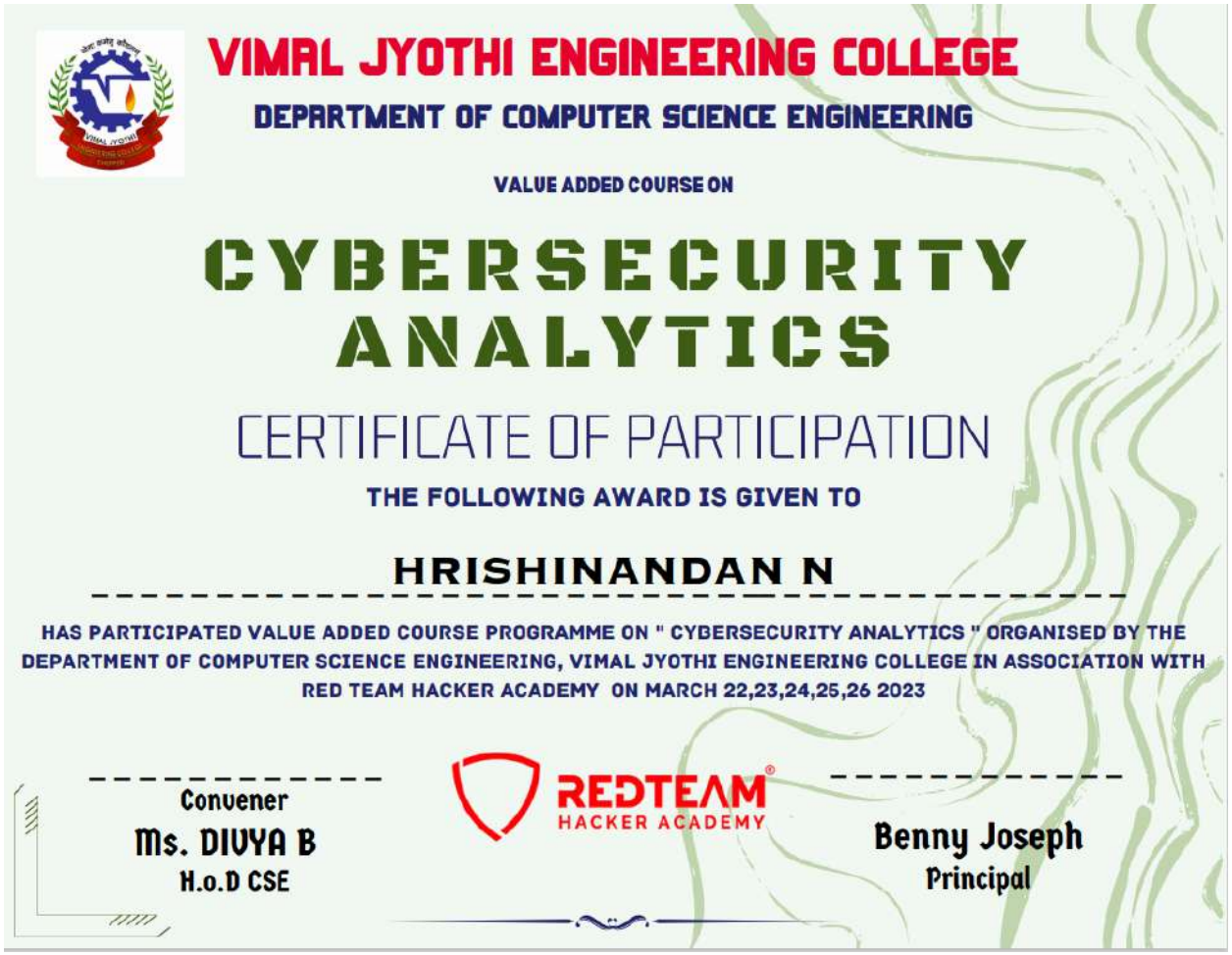


What is your level of learning on Cyber Security after this add-on course? 1 - Poor 2 - Satisfactory 3 - Excellent

103 responses



SAMPLE CERTIFICATE



Snippets