



VISION

To evolve as a centre of excellence, to train students in contemporary technologies, to meet the needs of global industry and to develop them into skillful engineers instilled with human values and professional ethics.

MISSION

To produce competent and disciplined Electrical & Electronics Engineers through delivery of quality education to meet the ongoing global challenges in alignment with technical education system and society.

INSIDE THE ISSUE

- 1. FDP-AI @ Energy efficiency**
- 2. Poster design competition**
- 3. 5 days FDP on Hydrogen energy for sustainable future**
- 4. Workshop on AI tools.**
- 5. S5 EEE add on course**
- 6. Technical note**
- 7. Sent off- Prabin sir**
- 8. Aurdino workshop**

Conducted a three-day Hybrid Faculty Development Programme (FDP) focused on "AI @ENERGY EFFICIENCY" on June 26 - June 28 2024. The event was attended by faculty members from various departments, both in-person and virtually, making it a truly hybrid experience.



The inaugural address was delivered by Dr. D. P. Kothari, Chairman of the Board of Governors at THDC Institute of Hydropower Engineering and Technology, Tehri, Uttarakhand, and Honorary Adjunct Professor at VNIT, Nagpur. Dr. Kothari, a distinguished scholar and Fellow of multiple esteemed organizations, including NAE, NASc, IEEE, ISTE, and IETE, set the tone for the event by emphasizing the critical role of AI in advancing energy efficiency.



● കോളജ് ഇലക്ട്രിക്കൽ വിഭാഗം മേധാവി പ്രൊഫ. ലാലി ജെയിംസ് ഭദ്രദീപം തെളിയിച്ച് ചടങ്ങ് ഉദ്ഘാടനം ചെയ്യുന്നു.

ചെന്നൈ വിമൽ ജ്യോതിയിൽ ഫാക്കൽറ്റി ഡെവലപ്മെന്റ് പ്രോഗ്രാം സംഘടിപ്പിച്ചു

ശ്രീകണ്ഠാപുരം ചെന്നൈ വിമൽ ജ്യോതിയിൽ മൂന്നു ദിവസം നീണ്ടു നിൽക്കുന്ന ഫാക്കൽറ്റി ഡെവലപ്മെന്റ് പ്രോഗ്രാം സംഘടിപ്പിച്ചു. നൂറന സാങ്കേതിക വിദ്യയായ ആർട്ടിഫിഷ്യൽ ഇൻ്റലിജൻസ് ഊർജ്ജ മേഖലയിലും പരിസ്ഥിതി സംരക്ഷണ മേഖലയിലും എങ്ങനെ ഉപയോഗിക്കാം എന്നതിനെ കുറിച്ചു ചർച്ച ചെയ്യുന്നതിനുള്ള സെമിനാർ ഫാക്കൽറ്റി ഡെവലപ്മെന്റ് എൻജിനീയറിങ് വിദ്യാഭ്യാസമേഖലയിലെ വിദഗ്ദ്ധനായ ഡോക്ടർ ടി.പി. കോത്താരി ഉദ്ഘാടനം ചെയ്തു. എൻജിനീയറിങ് വിദ്യാഭ്യാസ മേഖലയിലും വ്യാവസായിക മേഖലയിലും നിന്നുള്ള വ്യക്തികൾ ക്ലാസ്സുകൾക്ക് നേതൃത്വം നൽകി. കേരളത്തിലെ വിവിധ എഞ്ചിനീയറിംഗ് കോളജുകളിൽ നിന്നുള്ള അധ്യാപകർ ഈ സെമിനാറിൽ പങ്കെടുത്തു. പ്രിൻസിപ്പൽ ഇൻ ചാർജ് ഡോക്ടർ. ബിജു മാത്യു, ഡിപ്യൂട്ടി മെന്റ് മേധാവി പ്രൊഫസർ ലാലി ജെയിംസ്, പിആർഐ ബെഞ്ചമിൻപുത്തൻപുരം, പ്രോഗ്രാം കോഡിന്റേർ ഡോക്ടർ ടീന ജോർജ് സംസാരിച്ചു.





Poster design competition

As part of the IEEE PELS Day on June 20th, a poster design competition centered around the theme "Emerging Trends in Power Electronics" was organized.

VIMAL JYOTHI
ENGINEERING COLLEGE

pels
IEEE POWER
ELECTRONICS SOCIETY
POWERING A SUSTAINABLE FUTURE

IEEE pels DAY
JUNE 20
POWERING A SUSTAINABLE FUTURE

IEEE VJEEC

IEEE

POSTER DESIGN COMPETITION

TOPIC
**EMERGING TRENDS IN
POWER ELECTRONICS**

400 RS

200 RS

DUE DATE
27/06/2024



5 days FDP on Hydrogen energy for sustainable future

Conducted a five-day Faculty Development Programme (FDP) titled "Hydrogen Energy for a Sustainable Future" from July 8 to July 12, 2024. This online event brought together academicians, researchers, and industry professionals to explore the promising future of hydrogen energy as a sustainable energy source.

Who can Apply ?

Faculty members, research scholars, and PG students, from AICTE approved institutions are eligible to apply for the programme.

Registration Details

Registration Fee : 300/-
Gpay : +91 9895463603
For Registration :
<https://forms.gle/tb2tTaxr98VYcn8e8>

Or Scan the QR code



Last Date of Registration :
07/07/2024

Co-ordinator Ms. Sajina M. K Asst.Professor, EEE +91 9895463603	Co-ordinator Ms. Syama P. S. Asst.Professor, EEE +91 9846398959
Convener Dr. Nafeesa K HOD, EEE +91 9447934220	

About the FDP

FDP aims to educate faculty members and research scholars about the fundamentals of hydrogen energy, including production, storage, distribution, utilization and its collaborative and research opportunities. Fostering collaboration and networking opportunities among faculty members, researchers, and industry experts in the field of hydrogen energy. Promote interdisciplinary approaches for addressing challenges and opportunities in the hydrogen energy sector. Ultimately, contributing to the development of a skilled workforce and advancing the adoption of hydrogen energy technologies for a greener future. The participants will acquire knowledge about current technological developments in the field of hydrogen energy systems.

MES College of Engineering, Kuttippuram
Thrikkannapuram South PO,
Malappuram District, Kerala - 679582
Phone : +91 94000 62101, +91 94000 62102
www.mesce.ac.in

Who can Apply ?

Faculty members, research scholars, and PG students, from AICTE approved institutions are eligible to apply for the programme.

Registration Details

Registration Fee : 300/-
Gpay : +91 9895463603
For Registration :
<https://forms.gle/tb2tTaxr98VYcn8e8>

Or Scan the QR code



Last Date of Registration :
07/07/2024

Co-ordinator Ms. Sajina M. K Asst.Professor, EEE +91 9895463603	Co-ordinator Ms. Syama P. S. Asst.Professor, EEE +91 9846398959
Convener Dr. Nafeesa K HOD, EEE +91 9447934220	

About the FDP

FDP aims to educate faculty members and research scholars about the fundamentals of hydrogen energy, including production, storage, distribution, utilization and its collaborative and research opportunities. Fostering collaboration and networking opportunities among faculty members, researchers, and industry experts in the field of hydrogen energy. Promote interdisciplinary approaches for addressing challenges and opportunities in the hydrogen energy sector. Ultimately, contributing to the development of a skilled workforce and advancing the adoption of hydrogen energy technologies for a greener future. The participants will acquire knowledge about current technological developments in the field of hydrogen energy systems.

MES College of Engineering, Kuttippuram
Thrikkannapuram South PO,
Malappuram District, Kerala - 679582
Phone : +91 94000 62101, +91 94000 62102
www.mesce.ac.in

Resource Persons

 Dr. K.V. Vidyanandan Professor National Institute of Technology (NIT), Calicut	 Sujith Pillai Scientist F Secretary of New and Renewable Energy (MNRE)
 Dr. Kishore K Menon Deputy Director National Institute of Solar Energy (NISE), Gurgaon	 Sivaramakrishnan Ganesa Iyer Clean Energy Consultant
 Dr. C. Sreekanth Associate Professor College of Engineering, Muttathara	

About the Institution

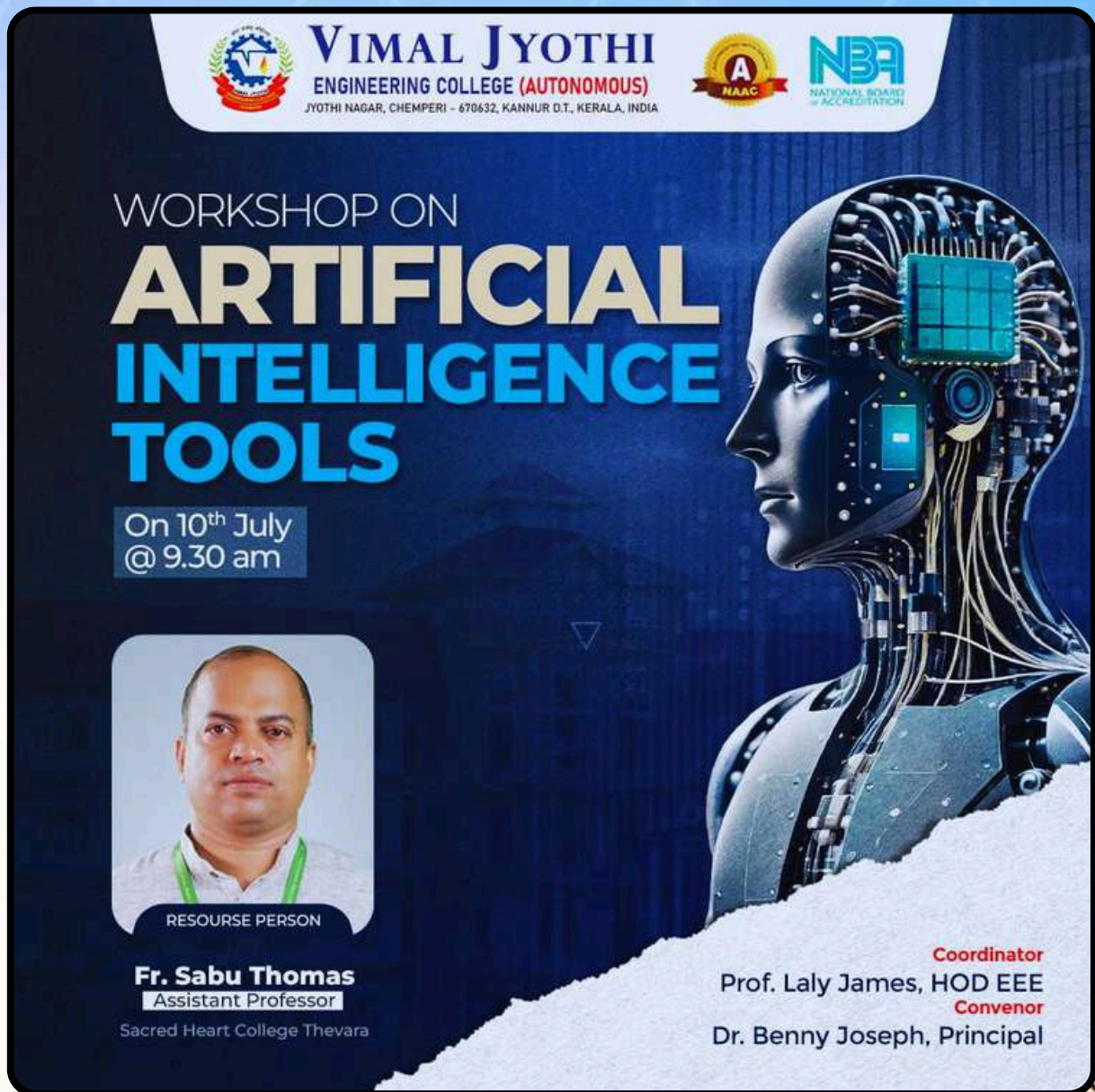
MESCE is the first Engineering College established under the self financing sector in Kerala is situated on the beautiful and serene banks of Nila or Bharathapuzha. It was established as an institution with minority status in 1994. Widely acknowledged as one of the premier institutions imparting technical education in the state, the college offers admission to all categories of students with special consideration to educationally backward communities. At present there are eight undergraduate programmes including B Arch and seven post graduate courses (M Tech, MCA, MBA and M Arch) and PhD programmes, in the college. The college is well managed by academicians and industrialists, who are visionaries in the field.


Chief Patron
Er. K.V. HABEEBULLA
Secretary, MESCE



Patron
Dr. RAHUMATHUNZA I
Principal, MESCE



Organized an insightful workshop on "Artificial Intelligence Tools" on the 10th of July, commencing at 9:30 AM. The event was graced by the presence of Fr. Sabu Thomas, an esteemed Assistant Professor from Sacred Heart College, Thevara, who served as the resource person for the workshop.




 **VIMAL JYOTHI**
ENGINEERING COLLEGE (AUTONOMOUS)
JYOTHI NAGAR, CHEMPERI - 670632, KANNUR D.T., KERALA, INDIA

WORKSHOP ON
ARTIFICIAL INTELLIGENCE TOOLS

On 10th July
@ 9.30 am


RESOURCE PERSON

Fr. Sabu Thomas
Assistant Professor
Sacred Heart College Thevara

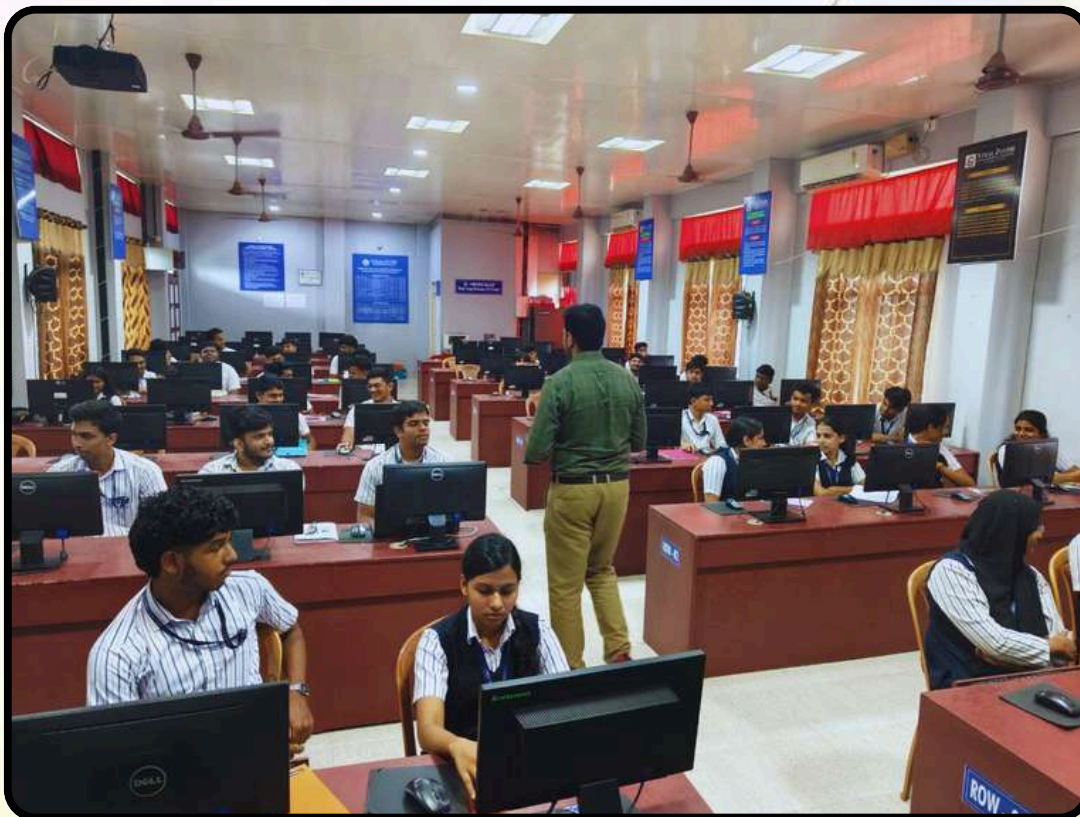
Coordinator
Prof. Laly James, HOD EEE
Convener
Dr. Benny Joseph, Principal



Workshop on AI tools.



Organized a Value Added Course on "Fundamentals of Python" from July 17th to July 20th specifically for S5 EEE students. This course was organized in collaboration with Neovent Innovations.



Wireless Network Architecture for Cyber Physical Wind Energy System

Integrating large-scale wind farms (WPFs) into the grid is challenging due to their remote locations and lack of reliable communication infrastructure.

Existing communication solutions for WPFs are fragmented and lack a standardized approach. This research aims to develop a wireless network architecture to address these issues. By using wireless technology, we propose a four-layer system to efficiently collect and transmit data from wind turbines, meteorological towers, and substations. Our analysis shows that wireless solutions can meet the necessary speed and reliability standards for grid integration.

Different solutions are available for real-time monitoring and control of WPFs including energy management systems (EMS), supervisory control and data acquisition (SCADA) system, condition monitoring system (CMS) and structure health monitoring (SHM). These systems aim to detect and isolate any fault/failure before causing catastrophic problems. Authors in provided a survey on WPF communication networks where several communication technologies including wired and wireless solutions are used to support the operation of WPFs. Wired communication technologies include wired local area network (LAN), telephone line, Fiber optic and propriety data communication, while wireless technologies include ZigBee, Wi-Fi, World Interoperability for Microwave Access (WiMAX), satellite and digital microwave. However, issues related to network bandwidth, latency, reliability, and security should be considered when designing a communication infrastructure for a WPF.

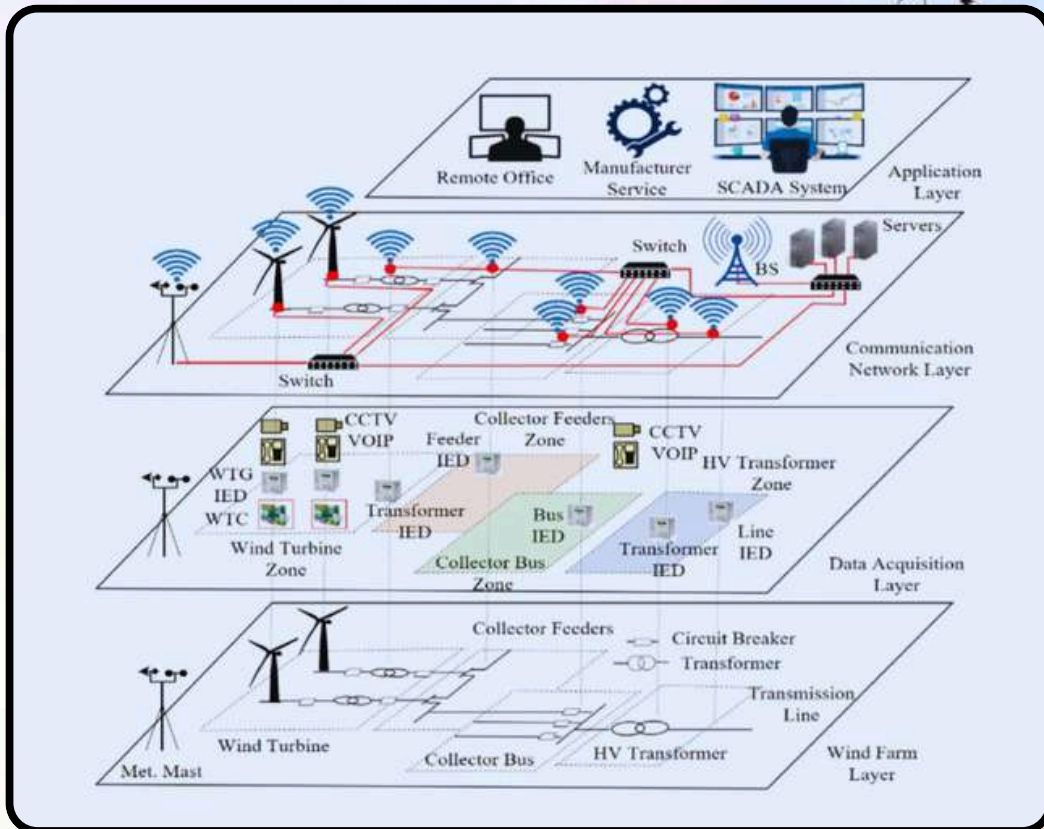
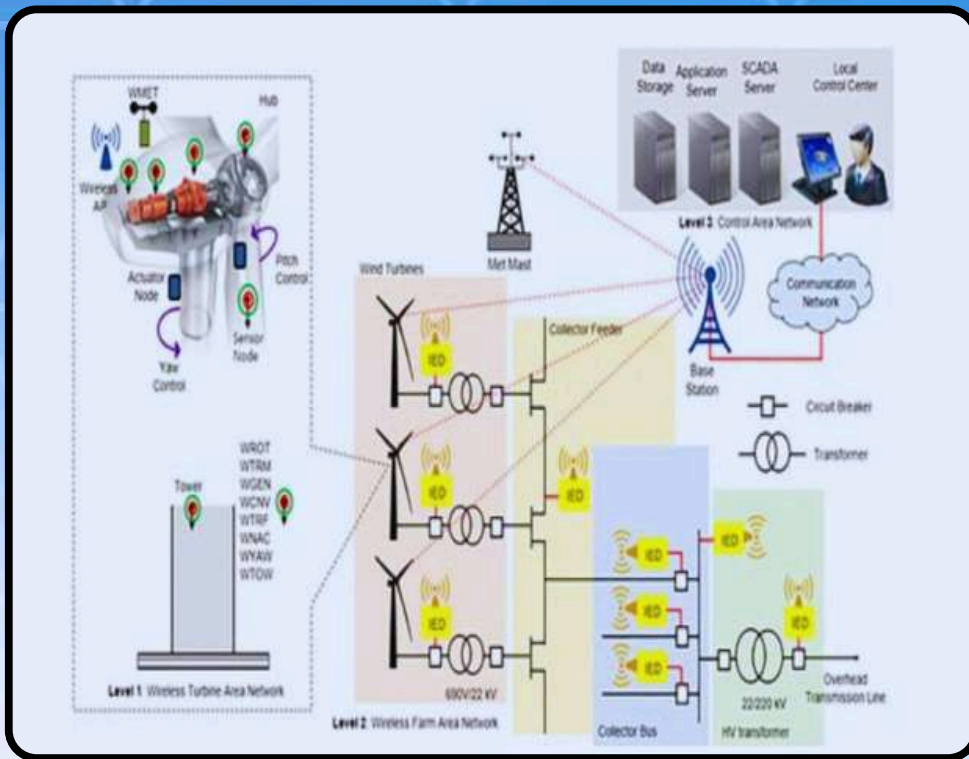


Cyber Physical Wind Energy System:

- A. Wind Farm Layer
- The main elements of the WPF are wind turbines, transformers, electrical collection system, a substation and a connection to the grid. There are different electric topologies (radial, ring and star) based on the WPF size and the level of reliability.
- B. Data Acquisition Layer
- The data acquisition layer interacts with the physical elements of the WPF through smart sensors/actuators. Different sensor nodes and measurement devices are deployed to collect real-time monitoring data from the WPF subsystem and transmit it to the upper layer through the communication network layer.
- C. Communication Network Layer
- The communication network is the most important layer which includes various wired/wireless communication technologies and various network devices. Two-way communications are needed to enable data exchange among different WPF applications. The communication network layer receives the monitoring data from sensor nodes and measurement devices in the data acquisition layer and transmits it to the upper layer. Also, it delivers the control commands from the control centre to the actuators in the lower layer.
- D. Application Layer
- The application layer is the top layer where received monitoring data is processed and analysed to support various WPF services. There are different servers at the control centre such as historical servers, SACAD server, meteorological server, metering server, etc. The received monitoring data enables the control centre operator to manage the WPF operation as well as making decisions and sending control commands accordingly.

Communication infrastructures will play an important role in real-time monitoring and control of large-scale WPFs. This paper proposes a framework for the wireless cyber physical wind energy system which consists of four layers: wind farm layer, data acquisition layer, communication network layer and application layer. This work contributes to design a redundant wireless infrastructure for monitoring remote WPFs. Future work aims to investigate the network performance considering real communication channels with impairments.





Prepared by,
Mr. Jerin Biju, S5 EEE



ALL THE BEST PRABIN SIR!

GOOD LUCK ON YOUR NEXT
ADVENTURE AND
CONGRATULATIONS ON YOUR NEW
JOB





Aurdino workshop

On the 27th of July 2024, a one-day Arduino workshop titled "Pitch Your Spark" was conducted at Naduvil Higher Secondary School, aimed specifically at Plus Two students. The workshop, which ran from 9:00 AM to 4:30 PM, was a unique opportunity for young minds to dive into the world of electronics and programming.

The resource person for the event was Dr. Muhammed Suhail, a Robotics Engineer from Deepflow Technologies Pvt. Ltd. With his expertise and passion for robotics, Dr. Suhail guided the students through the fundamentals of Arduino, a versatile open-source platform that is widely used for building digital devices and interactive objects.



PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

-GRADUATES WILL ACHIEVE BROAD AND IN-DEPTH KNOWLEDGE OF ELECTRICAL & ELECTRONICS ENGINEERING RELATING TO INDUSTRIAL PRACTICES AND RESEARCH TO ANALYZE THE PRACTICAL PROBLEMS AND THINK CREATIVELY TO GENERATE INNOVATIVE SOLUTIONS USING APPROPRIATE TECHNOLOGIES.

-GRADUATES WILL MAKE VALID JUDGMENT, SYNTHESIZE INFORMATION FROM A RANGE OF SOURCES AND COMMUNICATE THEM IN SOUND WAYS APPROPRIATE TO THE DISCIPLINE.

-GRADUATES WILL SUSTAIN INTELLECTUAL CURIOSITY AND PURSUE LIFELONG LEARNING NOT ONLY IN AREAS THAT ARE RELEVANT TO ELECTRICAL & ELECTRONICS ENGINEERING, BUT ALSO THAT ARE IMPORTANT TO SOCIETY

-GRADUATES WILL ADAPT TO DIFFERENT ROLES AND DEMONSTRATE LEADERSHIPS IN GLOBAL WORKING ENVIRONMENT BY RESPECTING DIVERSITY, PROFESSIONALISM AND ETHICAL PRACTICES

PROGRAM SPECIFIC OUTCOMES (PSOS)

APPLY THE KNOWLEDGE OF ELECTRICAL FUNDAMENTALS, CIRCUIT DESIGN, CONTROL ENGINEERING, ANALOG & DIGITAL ELECTRONICS TO THE FIELD OF ELECTRICAL & ELECTRONICS SYSTEMS IN INDUSTRY.

DEVELOP TECHNICAL KNOWLEDGE, SKILL, AND COMPETENCE TO IDENTIFY COMPREHEND AND SOLVE PROBLEMS IN RESEARCH AND ACADEMIC RELATED TO POWER SYSTEM ENGINEERING, INDUSTRIAL DRIVES & CONTROL.

PROGRAM OUTCOMES (POS).

- 1.ENGINEERING KNOWLEDGE
- 2.PROBLEM ANALYSIS
- 3.DESIGN/ DEVELOPMENT OF SOLUTIONS
- 4.CONDUCT INVESTIGATIONS OF COMPLEX PROBLEMS
- 5.MODERN TOOL USAGE
- 6.THE ENGINEER AND SOCIETY
- 7.ENVIRONMENT AND SUSTAINABILITY
- 8.ETHICS
- 9.INDIVIDUAL AND TEAM WORK
- 10.COMMUNICATION
- 11.PROJECT MANAGEMENT AND FINANCE
- 12.LIFE-LONG LEARNING



ചെമ്പേരി വിമൽജ്യോതി എൻജിനീയറിംഗ് കോളജിന് സ്വയംഭരണ പദവി ലഭിച്ചതിനോടനുബന്ധിച്ച് ചേർന്ന അനുഭാവന സമ്മേളനം തലശേരി ആർച്ച്ബിഷപ്പ് മാർ ജോസഫ് പാപ്പാനി ഉദ്ഘാടനം ചെയ്യുന്നു. ആർച്ച്ബിഷപ്പ് എക്കിറ്റസുമാരായ മാർ ജോർജ് വലിയത്തറ, മാർ ജോർജ് തോളങ്കോട്ട്, ഫാ. ജിയോ പുള്ളിക്കൽ, ഫാ. തോമസ് മേൽവെട്ടം, ഫാ. ജയിംസ് ചെല്ലങ്കോട്ട്, ഡോ. ബെന്നി ജോസഫ് എന്നിവർ സമീപം.

അഭിമാനനേട്ടം: വിമൽജ്യോതി സ്വയംഭരണത്തിന്റെ പടവുകളിൽ

ചെമ്പേരി: ചെമ്പേരി വിമൽജ്യോതി എൻജിനീയറിംഗ് കോളജിന് യുജിസി സ്വയംഭരണ പദവി നൽകി ഉത്തരവായി. 2002ൽ ആരംഭിച്ച എൻജിനീയറിംഗ് കോളജിന്റെ പ്രവർത്തന മികവിനു ലഭിച്ച അംഗീകാരം എന്ന നിലയിലാണ് യൂണിവേഴ്സിറ്റി ഗ്രാന്റഡ് കമ്മീഷൻ ഓട്ടോണമസ് പദവി നൽകിയത്. ഈ പദവി ലഭിച്ച മലബാറിലെ ആദ്യത്തെ എൻജിനീയറിംഗ് കോളജാണ് വിമൽജ്യോതി. എൻഎഐസി എ ഗ്രേഡ്, എൻബിഎ അക്രഡിറ്റേഷൻ, ഓട്ടോണമസ് പദവി എന്നിവ നേടിയെടുത്തതിൽ കോളജിനെ അഭിനന്ദിക്കുന്നതിനു വേണ്ടി സംഘടിപ്പിച്ച പടങ്ങിൽ തലശേരി അതിരൂപത ആർച്ച്ബിഷപ്പും രക്ഷാധികാരിയുമായ മാർ ജോസഫ് പാപ്പാനി ഉദ്ഘാടനം ചെയ്തു. സ്വയംഭരണ പദവി അവകാശങ്ങളും ഉത്തരവാദിത്തങ്ങളും നൽകുന്നതാണെന്നു ആർച്ച്ബിഷ

പ്പ് ഓർമ്മപ്പെടുത്തി. നിസർച്ച് മേഖലയിലും അതുപോലെ സ്വദേശത്തും വിദേശത്തുമുള്ള കമ്പനികളുമായി കൂടുതൽ ബന്ധങ്ങൾ വളർത്തിയെടുത്ത് വിദ്യാർത്ഥികൾക്ക് തൊഴിൽമേഖല വിപുലപ്പെടുത്താൻ ശ്രമിക്കുമെന്നും അദ്ദേഹം ഉറപ്പുനൽകി.

മുൻ രക്ഷാധികാരികളും ആർച്ച്ബിഷപ്പ് എക്കിറ്റസുമാരായ മാർ ജോർജ് വലിയത്തറ, മാർ ജോർജ് തോളങ്കോട്ട് എന്നിവർ അനുഗ്രഹപ്രദാക്ഷണം നടത്തി. കോളജ് മുൻ ചെയർമാൻമാരായ ഫാ. തോമസ് മേൽവെട്ടം, ഫാ. ജിയോ പുള്ളിക്കൽ, പ്രിൻസിപ്പൽ ഡോ. ബെന്നി ജോസഫ്, കോളജ് ചെയർമാൻ മോൺ. ആന്ണി മുതുകുന്നേൽ, കോളജ് മാനേജർ ഫാ. ജയിംസ് ചെല്ലങ്കോട്ട്, കോ-ഓർഡിനേറ്റർ പ്രൊ. ലാലി ജയിംസ് എന്നിവർ പ്രസംഗിച്ചു.



VIMAL JYOTHI ENG COLLEGE
INSPIRON- 11th JULY 2024

EDITORS
STAFF EDITOR-MR. RIJOY G N, ASST. PROFESSOR
STUDENT EDITOR-MS. SMERA SANIL , STUDENT-S5 EEE