

E-MINDS



DEPARTMENT OF **EEE**

Established in 2008, the Department of EEE has grown steadily, offering programs that cater to the evolving needs of the industry. The department began with a B. Tech program with an initial intake of 60 students in 2008, followed by the launch of an M. Tech program in Power Systems Control and Automation with 24 students in 2014. The department consists of qualified and dedicated faculty who serve as the key pillars supporting the department's growth and success in all aspects. Our curriculum and activities encompass key areas such as power systems, control systems, electrical machines, electromagnetic theory, and computer languages. They also integrate the latest advancements in rapidly growing fields like electric vehicles and renewable energy systems through honours and minor degree, which are essential for modern societal development and industrial progress

Department Vision

- To be a hub for imparting knowledge, skills and behaviour for exemplary contributions in the field of Electrical & Electronics Engineering

Department Mission

- M1: To impart technical education through the state-of-the-art infrastructural facilities, laboratories and instruction
- M2: To inculcate industry-oriented learning through industrial visits, internships, projects at industries, MoU's to make students technically skilled oriented
- M3: Creating conducive environment for higher education, employment and entrepreneurship through quality education, professional skills and research
- M4: To promote societal environment among students by inculcating moral and ethical values

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HOD Message:

It is a privilege and honour to lead the EEE department at this esteemed institution. Our field is at the heart of modern technological advancements, with a particular emphasis on the rapidly growing electric vehicle (EV) sector. This dynamic field encompasses core technologies like power systems, power electronics, electrical machines, control systems, and electromagnetic theory etc., all of which are critical to the development of efficient and sustainable transportation solutions.



To stay at the forefront of innovation, our departmental association, ADVAYA, organizes workshops, technical training, and expert guest lectures. These initiatives focus on emerging trends, including EV technologies, drone, IOT Technologies and aim to equip our students and faculty with the knowledge and skills needed to excel in this exciting domains.

Our department is committed to playing a pivotal role in shaping the future of electric mobility. By fostering research, development, and education in EV-related areas, we strive to create a sustainable and electrified transportation ecosystem.

Department Profile

Established in 2008, the Department of Electrical and Electronics Engineering (EEE) offers a range of programs, starting with a B.Tech program with an initial intake of 60 students in the same year. The department expanded its offerings to include a Diploma program in 2012 with a 60-student intake and an M.Tech (Power Systems Control and Automation) program in 2014 with a 24-student intake.

Our faculty is highly qualified, with 2 Ph.Ds and 12 M.Techs (4 of them are pursuing Ph.D's in reputed universities). They are actively engaged in research and have published or presented papers in esteemed national and international journals and conferences.

The department recognizes the crucial role electrical engineers play in the growth of medium and large-scale industries. With India experiencing rapid industrial growth, the demand for electrical engineers has skyrocketed in various sectors, including the power sector, private companies, PSUs, and government organizations. This translates to a wealth of exciting career opportunities for our graduates.

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M4: To promote societal commitment among students by inculcating moral and ethical values.

Program Educational Objectives

PEO1: Demonstrate the real-world engineering problem solving skills by applying the fundamental and conceptual engineering knowledge as a practicing Electrical and Electronics engineer or as a member/lead in a multidisciplinary project setting that utilize 21st century skills

PEO2: Provide research-based engineering solutions addressing the triple bottom line of environment and sustainability maintaining the professional standards, ethics and integrity

PEO3: Foster self-directed learning through their professional experience, technology advancements in their relevant field of interest and desiring graduates pursue advanced higher education leading to research

Dr. R. S. R. Krishnam Naidu,

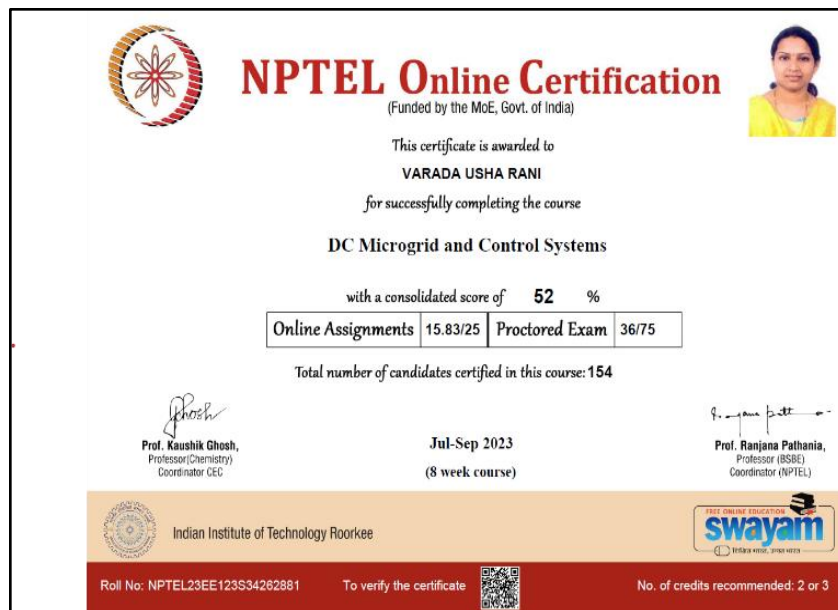
Professor & HOD – EEE

The following are the Activities and Achievements from the department of EEE during Sep to Oct, 2023:

| S.No | Name of the Activity & Achievements | Organized by | Date of the Event | Page Numbers |
|------|---|--|--------------------------------|--------------|
| 1 | Faculty NPTEL Certification | NPTEL | Jul-sep, 2023 | 5 |
| 2 | Faculty NPTEL FDP Certificate | NPTEL | Jul-sep, 2023 | 5-6 |
| 3 | FDP Certification on Enriching Academicians in the AI Era | DJ Academy of Research and Innovations | 12-09-2023 to 16-09-2023 | 6 |
| 4 | 15 Hours Training Program on ChatGPT and Generative AI | EXCELR | 11-09-2023 to 19-09-2023 | 7 |
| 5 | Paper Presentation in 2023 IEEE 2 nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023) | IEEE | 29-09-2023 to 30-09-2023 | 7 |
| 6 | Student NPTEL Certifications | NPTEL | Jul-Oct, 2023 | 8 |
| 7 | Course offered by NIIT Foundation | NIIT Foundation | 01-10-2023 | 9 |
| 8 | 3 Days Hands-on Workshop On PCB Design & Testing | NSRIT | 03-10-2023 to 05-10-2023 | 9 |
| 9 | Certificate of Appreciation | NSERB | 13-10-2023 to 14-10-2023 | 10 |
| 10 | Online Quiz on the Bharat - Loktantra ki Janani | Ministry of Parliamentary Affairs | 25-11-2023 | 10-11 |

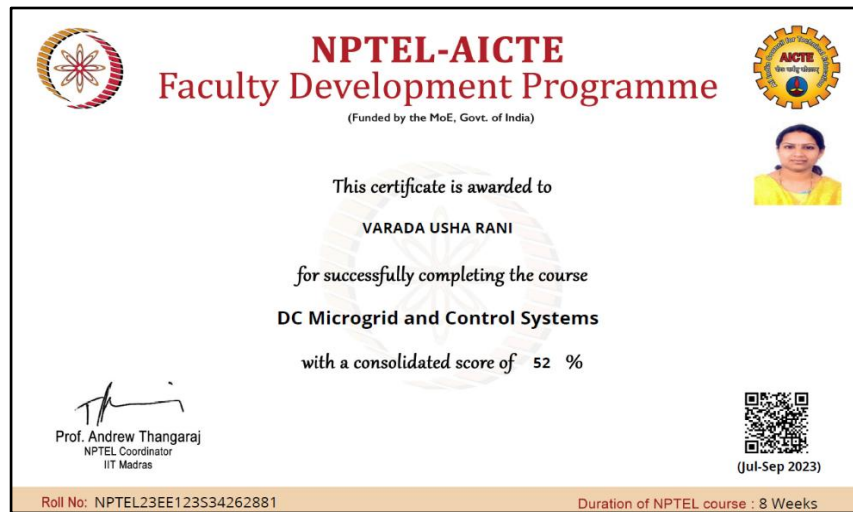
1. Faculty NPTEL Certification

Our faculty **Mrs. V. Usha rani** has completed the NPTEL Course on “**DC Microgrid and Control Systems**” and got certification. A **DC Microgrid** is an interconnected system of distributed energy resources (DERs) such as solar panels, wind turbines, energy storage systems (like batteries), and loads, all operating on direct current (DC). These grids can function independently of the traditional alternating current (AC) grid or in combination with it. They are increasingly popular in renewable energy applications due to the growing use of DC-based energy sources and loads. The **control system** in a DC microgrid plays a crucial role in managing the generation, storage, distribution, and consumption of energy efficiently.



2. Faculty NPTEL FDP Certificate

Our faculty **Mrs. V. Usha Rani** has successfully completed the Faculty Development Program on “**DC Microgrid and Control Systems**” and got certification. This FDP is designed to provide faculty members with the latest tools and techniques to teach, research, and develop solutions in the fast-growing field of **DC Microgrids and Control Systems**. Through hands-on sessions, they will learn to bridge the gap between theory and practical application, preparing their students for the renewable energy challenges of the future.



3. FDP Certification on Enriching Academicians in the AI Era



Our faculty **Dr. R.S.R. Krishnam Naidu** and **Mr. K. Ramanjaneyulu** has successfully participated in the “**5-Day National level online FDP on Enriching Academicians in the AI Era**” for DJ Academy of research and innovations. .A **Faculty Development Program (FDP) on Enriching Academicians in the AI Era** focuses on preparing educators to embrace and integrate Artificial Intelligence (AI) into their teaching, research, and academic practices. This program provides essential knowledge of AI technologies, teaching strategies, and how to engage students with AI-driven tools, promoting innovation and skill development for the future workforce.

4. 15 Hours Training Program on ChatGPT and Generative AI

Our faculty **Mr. K.M.M. Tarakesh, Ms. S. Yamini, Mr. K. Ramanjaneyulu** and **22 students** successfully completed the 15 Hours training program on “**ChatGPT and Generative AI**” Conducted by EXCELR, and got certification. A training program on **ChatGPT and Generative AI** can provide participants with a deep understanding of generative models, their applications, and hands-on experience in building and deploying them. This type of program is valuable for developers, researchers, and professionals interested in **AI, machine learning, and natural language processing (NLP)**.



5. Paper Presentation in 2023 IEEE 2nd International Conference on Industrial Electronics: Developments & Applications (ICIDeA 2023)



Our Faculty **Dr. R.S.R. Krishnam Naidu** and **Mr. P. Mahesh** has presented a paper with the title “**Modified Tunicate Swarm Algorithm Based Effective Energy Management for Hybrid Renewable Energy**”

Sources” in the 2023 IEEE 2nd international conference on industrial electronics: Developments and applications (ICIDeA 2023).

6. Student NPTEL Certifications



NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
BHAVISSETTY VARA PRASAD
for successfully completing the course

Advance Power Electronics and Control

with a consolidated score of **51 %**

| | | | |
|--------------------|----------|----------------|-------|
| Online Assignments | 21.25/25 | Proctored Exam | 30/75 |
|--------------------|----------|----------------|-------|

Total number of candidates certified in this course: 357

Jul-Sep 2023
(8 week course)

Prof. Kavshik Ghosh, Professor (Chemistry), Coordinator IIT Roorkee

Prof. Ranjana Pathania, Professor (SSC), Coordinator NPTEL

Indian Institute of Technology Roorkee

swayam

Roll No: NPTEL23EE127544261244 To verify the certificate No. of credits recommended: 2 or 3



NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
KENGUVA UMA MAHESWAR
for successfully completing the course

Integrated Waste Management for a Smart City

with a consolidated score of **57 %**

| | | | |
|--------------------|----------|----------------|----------|
| Online Assignments | 23.35/25 | Proctored Exam | 33.75/75 |
|--------------------|----------|----------------|----------|

Total number of candidates certified in this course: 1177


Jul-Oct 2023
(12 week course)

Prof. Haimanti Banerji, Coordinator, NPTEL, IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23CE865750104283 To verify the certificate No. of credits recommended: 3 or 4



NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
GAJULA NISHANK BABA
for successfully completing the course

Power System Protection

with a consolidated score of **47 %**

| | | | |
|--------------------|----------|----------------|-------|
| Online Assignments | 16.56/25 | Proctored Exam | 30/75 |
|--------------------|----------|----------------|-------|

Total number of candidates certified in this course: 172

Jul-Oct 2023
(12 week course)

Prof. Haimanti Banerji, Coordinator, NPTEL, IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23EE115750103728 To verify the certificate No. of credits recommended: 3 or 4



Elite NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
VARRI DIWAKAR
for successfully completing the course

Introduction to Internet of Things

with a consolidated score of **78 %**

| | | | |
|--------------------|----------|----------------|-------|
| Online Assignments | 23.56/25 | Proctored Exam | 54/75 |
|--------------------|----------|----------------|-------|

Total number of candidates certified in this course: 25880

Jul-Oct 2023
(12 week course)

Prof. Haimanti Banerji, Coordinator, NPTEL, IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL23CE865750104283 To verify the certificate No. of credits recommended: 3 or 4



Elite NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
ADIMULUM BHAGAT
for successfully completing the course

The Joy of Computing Using Python

with a consolidated score of **71 %**

| | | | |
|--------------------|-------|----------------|----------|
| Online Assignments | 25/25 | Proctored Exam | 46.28/75 |
|--------------------|-------|----------------|----------|

Total number of candidates certified in this course: 16145

Jul-Oct 2023
(12 week course)

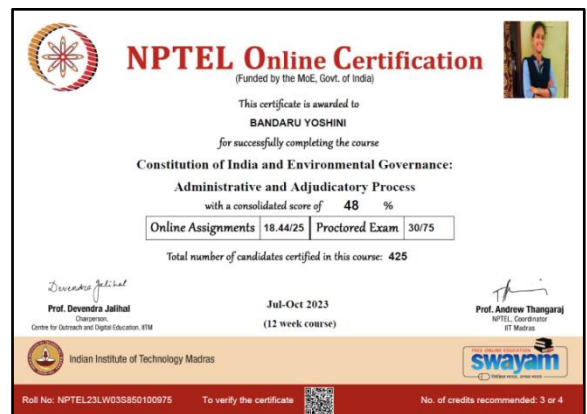
Prof. Devendra Jalihal, Chairman, Centre for Outreach and Digital Education, IITM

Prof. Andrew Thangaraj, NPTEL, Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL23CS1089850106055 To verify the certificate No. of credits recommended: 3 or 4



NPTEL Online Certification
(Funded by the MoE, Govt. of India)

This certificate is awarded to
BANDARU YOSHINI
for successfully completing the course

Constitution of India and Environmental Governance: Administrative and Adjudicatory Process

with a consolidated score of **48 %**

| | | | |
|--------------------|----------|----------------|-------|
| Online Assignments | 18.44/25 | Proctored Exam | 30/75 |
|--------------------|----------|----------------|-------|

Total number of candidates certified in this course: 425

Jul-Oct 2023
(12 week course)

Prof. Devendra Jalihal, Chairman, Centre for Outreach and Digital Education, IITM

Prof. Andrew Thangaraj, NPTEL, Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL23LV035850100975 To verify the certificate No. of credits recommended: 3 or 4

Our students has succesfully completed the NPTEL courses of **Advance Power Electronics and Control, Introduction to Industry 4.0 and Industrial Internet of Things, Integrated Waste Management for a Smart City, Power System Protection, Introduction to Internet of Things, The Joy of Computing using Python,Constitution of India and Environmental Governance: Administrative and Adjudicatory Process** and got certification.

7. Course offered by NIIT Foundation

Our student **D Ravi Teja** has successfully completed the course on **Digital Productivity** offered by NIIT Foundation on **01st October 2023** and got certification. A course on **Digital Productivity** focuses on helping individuals and teams maximize efficiency by leveraging digital tools, platforms, and techniques. This type of course is valuable for professionals, entrepreneurs, students, or anyone looking to improve their time management, organization, and work processes using modern technology.



8. 3 DAYS HANDS-ON WORKSHOP ON PCB DESIGN & TESTING

A **Hands-On Workshop on PCB Design & Testing** offers introduction to PCB design, basics of PCB technology, materials, and types. Understanding schematic diagrams, PCB design tools & software, overview of PCB manufacturing processes, PCB assembly and soldering techniques. functional testing, debugging, and troubleshooting methods, PCB assembly and soldering techniques.

Our students **Mr. Vinay, Mr. Jarakeswara** and **48 other students** has successfully completed the **“3 Days Hands-On Workshop on Pcb Design & Testing”** organized by Department of Electrical and Electronics Engineering, Nadimpalli Satyanarayana Raju Institute Of Technology (AUTONOMOUS) in Association with M/s. Teck Team Solutions from **03rd October 2023 to 05th October 2023**.



9. Certificate of Appreciation

The “**Workshop on Power Electronics Converters for Electric Vehicle Application (PECEVA-2023)**”, organized by the School of Electrical Sciences at the Indian Institute of Technology Bhubaneswar, was held on **October 13–14, 2023**. Our student **Ms. C. Janani** has participated in the workshop and got awarded with the certificate of appreciation.

The workshop featured high-quality lectures and discussions on topics such as design and modeling of power electronic converters for electric vehicles thermal and electromagnetic / electromechanical considerations, design and control of electrical machines in EVs, configurations and management of EV chargers, application of Wide-Band Gap (WBG) devices in EVs, modeling and simulation of ev/hev systems and their optimization and digital control prototyping for power converters and electric motors in EV applications.



10. Online Quiz on the Bharat - Loktantra ki Janani

The “**Bharat Loktantra ki Janani online quiz**” was an initiative by the Ministry of Parliamentary Affairs in collaboration with MyGov to commemorate Samvidhan Diwas (Constitution Day) on **25th November 2023**. This annual observance honors the adoption of the Indian Constitution and underscores its foundational values and principles.

Our students has participated in the workshop and got awarded with the certificate of participation.

