

### **AICTE Training and Learning (ATAL) Academy:**

AICTE Training and Learning (ATAL) Academy is established to empower faculty to achieve goals of Higher Education such as access, equity and quality. It was felt that Training with latest tools and technologies is vital to keeping an institute competitive and more productive. Training is required for increasing the knowledge and skills of students to make them more employable to acquire global competencies.

Furthermore, the higher education system is passing through a transformational phase to cope up with the global trends. National Education Policy (NEP)-2020 is a light house for this journey of transformation. Quality teachers' community is always a potential force to enforce the changes and plays a pivotal role in development of knowledge building, knowledge sharing and its dissemination. In the extant scenario with disruptive technological advancements, role of higher education teachers is more important than it ever was.

### **Preamble:**

This FDP is designed to address research advancements in Power conversion topologies and applications in the industry and to encourage various zonal professionals' /students/academicians towards research and for their Academic Quality Improvement too. This course will offer a unique opportunity to all the participants in the relevant topics in Real Time Power Electronic systems and its applications through theoretical sessions and simulation plus laboratory-based experiments and demonstrations. Also, this FDP aims at giving scope for future research.

### **Objectives and context:**

Automotive technology is the thrust area where heaps of changes being made for improving the overall efficiency of a vehicle. Electric vehicles technology has gained focus of the researchers and industry in recent times. Electric vehicles are expected to increase from 2% of global share in 2016 to 22% in 2030. In this context, it is imperative that we, as engineers and academicians, become well versed in the art of designing and developing EV technology.

This FDP intended to address the uncertainties and challenges in EV and associated technologies through knowledge and information exchange. The main aim of this FDP is to expose the faculty to new developments in the above areas of technology and the same may be imparted in the student community.

### **FDP aims at giving scope for future research**

- Master techniques of design-oriented analysis for switched-mode power converters
- Verify the design of closed-loop regulated power converters using switching and averaged circuit simulations
- Modern Electric Drives and Control Techniques for EVs
- Design input filters for switched-mode power converters
- Advanced power converters for various applications and Provide hands on exposure to real time digital control techniques.
- Hands on simulation practice of inverters, high gain converters, PV fed converters, resonant converters and its applications in E-Transportations

### **Benefits to Faculty:**

This FDP aims at equipping the faculty with skills and knowledge that are essential for inculcating moral values in students and guiding and monitoring their progress towards professional career.

### **Expected Outcome:**

After the completion of FDP, the participants can

- Create an awareness of the need and importance of Sustainable technology.
- Impart knowledge and develop skills in diverse training methods in imparting training to students and research scholar.
- Plan curriculum that can imbibe the skills and competencies to achieve goals, have a positive attitude and can cope with the changing times.
- Develop with a technical and professional mindset.
- Develop Techniques of proposal preparation and write feasible and viable project.



## **Faculty Development Programme**

**On**

## **Power Electronics, Energy Storage and Renewable Technologies (PEESRT) for E-Transportation in India (13<sup>th</sup> – 25<sup>th</sup> February 2023)**

**Organized by**



**Department of  
Electrical and Electronics Engineering  
Gokaraju Rangaraju  
Institute of Engineering and Technology  
Hyderabad  
in association with**



**Department of Electrical Engineering**

**NIT Warangal**

**Sponsored by:**

**All India Council for Technical Education (AICTE)**

**ATAL Academy, Govt. of India, New Delhi**

**For Any Details Please Contact:**

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### **About GRIET, EEE Department, Hyderabad:**

GRIET is a premier institute of engineering, established in the year 1997 under the patronage of the Gokaraju Rangaraju Educational Society. The college is approved by AICTE and is affiliated to JNTU, Hyderabad. It has been given autonomous status by UGC. All the programs are accredited by NBA under Tier-I. The Institute is accredited by NAAC with A++ grade. The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. GRIET strives to provide state-of-art infrastructure. Multi-specialty faculty continuously review, Innovate and experiment teaching methodologies and learning resources and focus on research, training and consultancy through an integrated institute-industry symbiosis.

**The Department of Electrical and Electronics Engineering** was established right from the inception of the institute in 1997. Department offers 1 UG Program (B. Tech-EEE) and 1 PG Program (M. Tech - Power Electronics), with a present intake of 60 UG and 12 PG students per year. M.Tech Power Electronics and B.Tech EEE programs are accredited by NBA under Tier-I. Received The department is approved as recognized JNTUH research centre. The department undertakes consultancy projects for industries and actively involved in the various research projects worth Rs 2 Crore funded by AICTE, DST and other organizations.

### **About NITW, EE Department, Warangal:**

**NIT Warangal**, formerly known as Regional Engineering College was established in 1959. Over the years it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 14 Departments offering eight undergraduate and 32 post-graduate programmes besides doctoral programmes. About 5000 students across the country and about 500 international students study on the campus. Its R & D activities have gained momentum with funding/MoU from governmental agencies/industries.

**The Department of Electrical Engineering** was established as one of the major departments of NITW, in the

year 1959. It offers B.Tech in Electrical & Electronics Engineering, M.Tech program in Power Electronics & Drives and Power Systems and Ph.D program. Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 140Km. from Hyderabad. Warangal is well connected by rail and road. National Institute of Technology campus is 2 Km. away from Kazipet junction and 12Km. away from Warangal station.

### **Target and Number of participants:**

**For Basic FDP:** Assistant Professors /Associate Professors / PhD Scholars / PG Students from Higher Educational Engineering Institutions / University.

**Number and level of Guest Speakers:** The resource persons are from leading national/international Institutions /Universities and industry experts.

### **Registration Fee Particulars: No Fee**

**Resource Persons: Young & Energetic eminent & finest Researchers & Faculty from International Universities IITs, NITs, IIITs & Industry experts.**

**Eligibility:** Assistant Professors /Associate Professors / PhD Scholars / PG Students from Higher Educational Engineering Institutions / University.

**Important Information:** The certificates shall be issued to those participants who are registered on ATAL portal [www.aicte-india.org/atal](http://www.aicte-india.org/atal) and attend the program with minimum 80% attendance and score minimum 60% marks in the test. For more details refer this link <https://atalacademy.aicte-india.org/FAQs>

**How to apply:** Participants are required to apply through AICTE ATAL registration Link <https://atalacademy.aicte-india.org/signup>

**Selection Criteria:** As per AICTE ATAL guidelines & first-cum-first-serve basis.

**Industrial Visit:** Visit to Siemens Centre of Excellence and Hitachi Centre of Excellence, NIT-Warangal

### **Chief Patrons**

**Sri. G.V.K. Ranga Raju**

Vice President, GRES

### **Patrons**

**Dr. Jandhyala N. Murthy**, Director, GRIET

**Dr. J. Praveen**, Principal, GRIET

### **Coordinators**

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Professor, EEE Dept., GRIET

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Professor, EEE Dept, GRIET

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