



AICTE Training & Learning (ATAL) Academy Sponsored
FACULTY DEVELOPMENT PROGRAM

on

Design of Advanced Controller for Micro Grid and Electric Vehicles

(Offline mode: 20th – 25th January 2025)



Organized by
Department of Electrical and Electronics Engineering



VIGNAN'S LARA
INSTITUTE OF TECHNOLOGY & SCIENCE
(AUTONOMOUS)

Approved by AICTE New Delhi & Affiliated to JNTUK Kakinada
Accredited by NAAC 'A+' and NBA | ISO 9001 : 2015
Vadlamudi - 522 213, Guntur District



About the Institute

Vignan's Lara Institute of Technology & Science, was established with the aim of providing quality technical education at Vadlamudi, Guntur District, Andhra Pradesh in the year 2007 under the aegis of Lavu Educational Society and headed by the experienced academician and visionary Dr. Lavu Rathaiah. The college is located at Vadlamudi, on the Guntur- Tenali highway, about 15 kms from Guntur and 12 kms from Tenali. It is affiliated to the Jawaharlal Nehru Technological University Kakinada, approved by the AICTE, New Delhi. The institute was accredited with NAAC and NBA (CSE, IT, ECE, EEE & MECH). College got autonomous status by the UGC for ten years. It has also been awarded 2(f) and 12(B) statuses.

About the Department

The department of Electrical and Electronics Engineering was established from the inception of the institute, 2007. It has well-qualified faculty, many of whom hold doctorates from the reputed institutions like IIT, NIT, and state universities. The main goal of the department is to produce young engineers of high knowledge, competent and resourceful who can execute well in a variety of jobs. To achieve this, the department is making committed efforts in nurturing a formidable base both in analytical and technological aspects. Every year our students secure placements in the reputed MNCs and some are admitting for higher education. The Department is establishing the practice of inviting specialists from other reputed institutions to deliver extension lectures on topics of current interest and future importance.

About the FDP

The objective of the FDP is to strengthen the participants' knowledge and skills on different control techniques for the micro grid and electric vehicles. This is achieved by discussing the artificial intelligence-based controllers like neural networks and fuzzy logic-based controllers. Model predictive based controller, and model reference adaptive controllers further add to the knowledge base. Various converter topologies like DC-DC, DC-AC, AC-AC are elaborated by academia and industry experts, thereby exposing the participants to the real world challenges. The FDP enables the participants to focus on the recent upcoming technologies which equip them with sufficient skills. Ultimately, participants will receive a certificate validating their enhanced expertise.

Topics to be covered in the FDP

- Model Predictive Controller design for PMSM
- MRAS and Fuzzy logic controller design
- DC-DC converter for high gain applications
- Hybrid energy storage system
- AI and ML techniques in microgrids
- Battery management system for the grid applications
- Topologies in the electric vehicles
- Solar powered electric vehicle
- Fractional order controller design for the electric vehicles
- Converter design for the electric vehicles

Resource Persons

- 1) Dr. B. L. Narasimha Raju, NIT, Warangal
- 2) Dr. T. Ramesh, NIT AP, Tadepalligudem
- 3) Dr. D. Raveendra, NIT Allahabad
- 4) Dr. M. Suresh, NIT, Goa
- 5) Dr. Sateesh Kumar Vavilala, VLITS, Vadlamudi
- 6) Mr. K. Balakrishna, Efftronics

Committee members

Chief Patron

Dr. L. Rathaiah, Chairman

Patron

Sri. L. Sri Krishnadevarayalu, Vice-Chairman

Principal

Dr. K. Phaneendra Kumar

Convener

Dr. K. Rajani, HoD EEE

Coordinator

Dr. Sateesh Kumar Vavilala, Assoc. Professor, EEE

Co-Coordinator

Mr. K. Venkatesh, Assistant Professor, EEE

Advisory Committee

1. Prof. Ranjit Mahanty, IIT (BHU)
2. Prof. S. Siva Nagaraju, UCEK, JNTUK
3. Dr. N. Sivakumaran, NIT, Trichy
4. Dr. T. Vinopraha, NIT Puducherry, Karaikal
5. Dr. P. Suresh Babu, NIT Warangal
6. Dr. G. Srinivasa Rao, VFSTR

Organizing Committee

All the Faculty Members of Department of EEE

Registration and Fee Particulars

- No Registration Fee
- Selection as per AICTE ATAL guidelines & first cum- first-serve basis
- Participants are limited to 50
- Registration for the program may be done by signing up in the ATAL portal. <https://atalacademy.aicte-india.org/>
- After clicking on the link, it will ask you for signup
- Fill your details and submit the form
- If you are having account previously, please use those credentials to login in the above link

Who can attend?

- Faculty members of AICTE approved Institutions
- Research scholars
- Persons working in the R&D Organizations
- Industry persons & PG students

Certificate Criteria

- Minimum attendance needed: 80%
- A test will be conducted at the end of the program
- Exam score: Minimum 60% marks in the test

Important Dates:

Last date to register	10/01/2025
Date of confirmation	15/01/2025
Date of commencement of FDP	20/01/2025

FDP Timings: 09:30 AM to 5:30 PM

For any queries contact:

Dr. Sateesh Kumar Vavilala 8754197819
Mr. K. Venkatesh 9573782557

REGISTRATION FORM

Six Days

**AICTE Training and Learning (ATAL)
Academic FDP Program**

Design of Advanced Controller for Micro Grid
and Electric Vehicles

[20th – 25th January 2025]

Name: -----

Designation: -----

Institute/Organization: -----

Mobile: -----

Email: -----

Date: -----

Signature of the Applicant with Date:

Signature of Authorized Signatory with Seal