



Short Profile of the Department

Department of Electrical & Electronics Engineering
Arunai Engineering College
Tiruvannamalai 606 603
Tamilnadu, INDIA

Year of Establishment: 1993



Vision

To Provide Total Quality Education with Students centric learning environment and prepare our Students to be socially relevant Engineers for taking up Technology Leadership.

Mission

To produce world class Electrical & Electronics Engineers to meet the challenges of the 21st century Power Utilities and industries with the state of the art knowledge in Electrical Power, Electronics, Control, Instrumentation and IT applications.

Objective

To Enlighten the Young Technocrats with Technical and Entrepreneurial Skills to meet the Challenges of the World.

Significant Achievements of the Department



- **1000 + UG/PG Students placed in various Government Organisations/Electric Utilities/ reputed industries/Software Companies/settled in Abroad.**
- **75 + University ranks over these years in UG from the year 1997 onwards.**
- **University Gold Medal (Anna University, Chennai) in M.E Embedded System Technologies in the Year 2015.**
- **University Gold Medal (Anna University, Chennai) for M. E Power Electronics & Drives (Twice) in the years 2007, 2014.**
- **5 National Awards by UG/PG Students**
- **5 National/State Awards by Staff**
- **5 R& D Project Grants from Government of India & Government of Tamilnadu.**
- **Collaborations with reputed Government/Utilities/industries/Software companies in India and all over the World.**



List of R&D Funded Projects of EEE Department

Sponsoring Agency
Indo-Srilanka Joint Research programme, by Department of Science & Technology (DST), Government of India and Ministry of Science, Technology & Research (MSTR), Government of Sri Lanka
Wind Energy Division, Ministry of New & Renewable Energy, Government of India
Central Power Research Institute, Bangalore (A Government of India Society under Ministry of Power) Ministry of Power, Government of India
All India Council for Technical Education, New Delhi Ministry of Human Resource Development Government of India
Tamil Nadu State council for Science and Technology Govt. of Tamilnadu

R & D work on Green Energy



Funded and Supported by



नीवे NIWE



TNEB Limited



TANTRANSO

CONNECTING WITH CONFIDENCE



CREATING WEALTH FOR WELL BEING

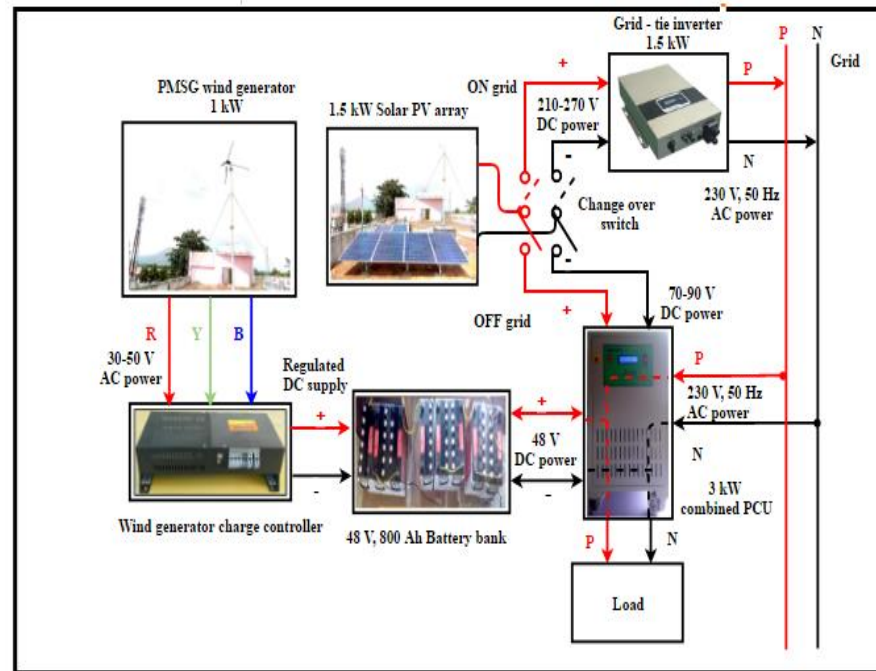


Fig. Deployment of Grid Interfaced Power Conversion Unit for Solar – Wind Power Generation System in Arunai Engineering College, Tiruvannamalai District, Tamilnadu, India

- Wind – Solar system of capacity 2.5 kW (Wind system – 1 kW and Solar Photovoltaic system – 1.5 kW) is commissioned during 2018 and began its service to generate the electric power to feed the local load/ grid.
- As on **26 January 2020**, Wind – Solar system had delivered **856 kWhr of electricity into the local grid**. (5 Units of electricity on a given day of operation from solar and wind system).
- This R & D Work is carried out in support with Central Power Research Institute, Bangalore and National Institute of Wind Energy, Chennai, Ministry of Power and New & Renewable Energy, Government of INDIA.

Students are motivated to work for the following deliverables needed by Power sector/software companies

- Design of renewable energy based smart grids, with energy storage options, for rural electrification.
- Development of robust intelligent control strategies with machine/deep learning algorithms for data security and network privacy.
- Deployment of information and communication technologies for demand response (DR) including wireless sensors, cloud computing, cyber security and wide area monitoring for smart energy grid deployment.



Students are trained in the following potential areas needed for Power Progress of INDIA:

- Development, implementation and coordination of Intelligent Grid Architecture with Energy Storage for Energy Security of the Country within Microgrid framework with Multi – Agent approaches.
- Sustainable Microgrid Conceptualization with Renewable Sources and Grid Interface with advanced energy storage options both at Microgrid and Regional Grid level.
- Redefining a Large Grid into Microgrid built with both classical and renewables along with islanding mechanism.
- Understanding the Operational Complexities of Large Interconnected Grid and Evolving Technologies in Microgrid operations and control.

Research Challenges addressed

- How to manage intermittency and variability in renewable energy system?
- When to act for demand response in Indian electric power system?
- Why to go for renewable energy based micro grid architecture through Multi Agent Systems?
- Which novel process technologies & prototype device fabrication to be employed for renewable energy systems?



Youth Challenges

- Who am I?
- What do I want?
- How do I get there?

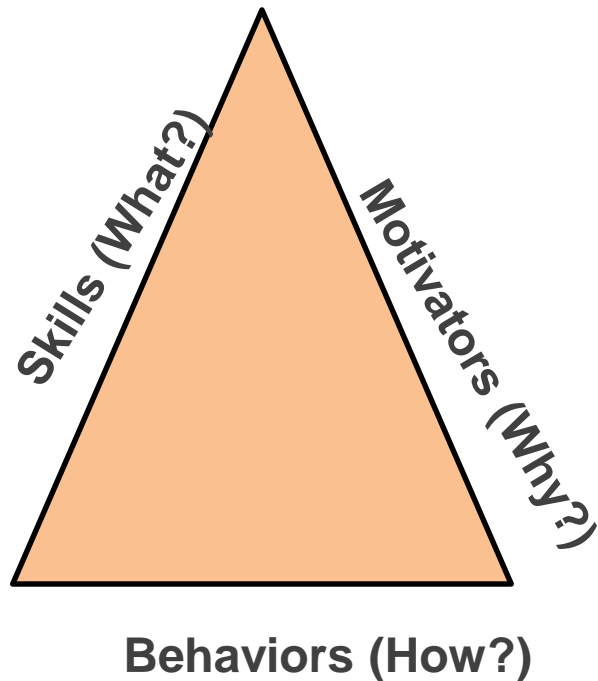
External Pressure

- Social Media
- Peer Pressure
- Parental Pressure
- Competitive Jobs Landscape
- Demanding Schedules

The Need

- Learn the corporate requirements for a job role and tune themselves
- Understand their core area of strength /Values
- Improve the Attitude and determination.

What We do?



We provide a holistic view for each student:

1. Quality Education
2. Work Skills & Role Readiness
3. Behavioural & Motivational Characteristics