

ABOUT THE COLLEGE

Nehru College of Engineering and Research Centre (NCERC), one of the premier and vibrant Technical Institutions in Kerala, was started in the year 2002 under Nehru Group of Institutions (NGI) which was established in 1968 by Late Shri P. K. Das. There are 21 Institutions under NGI offering multiple courses from various areas including Aeronautics, Engineering, Management, MBBS, Pharmacy, IT, Nursing, Arts and Science. NCERC is a ISO 9001:2015 certified institution affiliated to Dr. A P J Abdul Kalam Technological University and approved by All India Council of Technical Education (AICTE). It is also accredited by NAAC. It offers 6 undergraduate and 7 Postgraduate programmes including MBA, MCA. To make the students professionally worthy, the college has Institutional membership of professional societies such as IEEE, ISTE, CSI, IE(INDIA), ISTD, AIMA, SEEM etc. to strengthen the values of the Institute and its Students.

College campus is located on the northern slopes of Thiruvilwamala, which merges with the banks of the holy river Nila. This undulating terrain of 40 acres with lush green vegetation is continuously swept and hugged by the gentle northern breeze that brings the purity, serenity and sweetness of the river Nila. This picturesque location shall linger nostalgically in the minds of anybody visiting this beautiful area. Endowed with an enchanting and breath-taking topography, lush green natural vegetation, virgin land, pollution free atmosphere, moderate temperature, plentiful of nectar like fresh water and salubrious climate, this is a sought after place for healthy life, clear thinking and pleasant learning pursuits.

ABOUT THE DEPARTMENT

As most electrical systems are automatically controlled nowadays, Electrical & Electronics

Engineering branch is of considerable importance in present day industrial systems. Emphasis is placed on a thorough exposure to fundamental subjects like Basic Electrical Engineering, Electromagnetic Field Theory and Control Systems. Detailed studies in Electrical Machines, Power Systems, Microprocessors and Microcontrollers are also undertaken. Finally an exposure is given to Power Electronics, Industrial Drives and Instrumentation Systems. Students have an option to choose a range of electives from VLSI Design to High Voltage Engineering. Industrial study visits and seminars are an integral part of the programme. EEE department runs one PG program on Energy Systems, one of its kind in India which is of great relevance in national development through energy management.

DEPARTMENT VISION

To excel in technical education and research in the field of Electrical & Electronics Engineering by imparting innovative engineering theories, concepts and practices to improve the production and utilization of power and energy for the betterment of the Nation.

DEPARTMENT MISSION

To develop enthusiastic technical personnel to meet the ongoing global challenges through systematic teaching, rigorous practical training and research and collaboration with industry to offer feasible solutions for energy related problems and hence contributing towards national development.

ABOUT THE COURSE:

Awareness of power quality is highly essential in sensitive industries like biomedical, automation and control etc. where standardization and performance is of utmost importance. The proliferation of power electronic devices and nonlinear loads in electric power networks has triggered a growing concern for power quality issues from both utilities and power users. Tripping of equipment due to disturbances in the supply voltage is often described by the customers as “bad power quality”. Utilities on the other side, often view disturbances due to end-user equipment as the main power quality problem.

Power quality problems have increasingly become a substantial concern over the last decade, but surprisingly few analytical techniques have been developed to overcome these disturbances in system-equipment interactions. This five day FDP aims at exposing the faculty members to various power quality issues. Hands on sessions in MATLAB software is being organized during this FDP. It is then used to simulate various power quality disturbances and observe how these disturbances distort the power system sinusoidal waveform. The models can be developed with minimum number of blocks in mind and use their default settings whenever possible to reserve their simplicity and reproducibility for the learners. Simulation models including line fault, induction motor starting, transformer energizing, capacitor bank energizing, lightning impulse, nonlinear load, and electric arc furnace models will be used to simulate various power quality disturbances.

CHIEF-PATRONS

Adv. Dr. P. Krishnadas
Chairman & Managing Trustee, NGI

Dr. P. Krishnakumar
CEO & Secretary, NGI

PATRON

Prof(Dr.) Ambikadevi Amma T
Principal, Nehru College of Engineering and Research
Centre, Pampady

CONVENOR

Prof. Sundaramoorthi .P
HoD, EEE, NCERC

CO-ORDINATORS

Mr.Rajkumar G
Assistant Professor,
EEE Department
NCERC

Mr.David E
Assistant Professor,
EEE Department
NCERC

COURSE OUTLINE

1. Importance of Power Quality
2. Power Quality Issues
3. Impact of Harmonics
4. Role of FACTS in power quality control
5. Impact of modern power electronics in electrical network.

ELIGIBILITY AND FEE:

The workshop is open to Faculty and Research scholars from institutions recognized affiliated to A P J Abdul Kalam Technological University and no Fee will be charged.

SELECTION PROCESS:

- Maximum participants allowed as per norms: 30
- Selection basis: First come first serve
- Intimation: By e-mail

DATES TO REMEMBER

Workshop Date: January 27th to January 31st 2020
Last date for online submission: 24th January 2020
Date of Confirmation: 25th January 2020.

How to apply?

Application forms in the prescribed format duly filled up in all respects, along with the sponsorship certificate from the head of the institution, should reach the coordinator on or before the last date. Apply online through the link provided below:

URL: <https://bit.ly/35nqaCy>

PROBABLE SPEAKERS

Sessions will be chaired by Eminent Resource Persons from Industry, Research Agencies and Academia with adequate research exposure and experience in the aforesaid courses.

ADDRESS FOR COMMUNICATION

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**A P J ABDUL KALAM
TECHNOLOGICAL
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**Sponsored
FACULTY DEVELOPMENT
PROGRAM ON POWER
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DISTRIBUTION**

January 27th to January 31st, 2020



Organized by

**DEPARTMENT OF ELECTRICAL AND
ELECTRONICS ENGINEERING**



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**NEHRU COLLEGE OF
ENGINEERING & RESEARCH
CENTRE**

**PAMPADY, THIRUVILWAMALA,
THRISSUR, KERALA, INDIA**