

these regular programmes, this department is also actively involved in conducting faculty development programmes, job-oriented short-term training programmes, continuing education programmes for engineering professionals and academic faculty. Department has a number of sponsored projects in different areas funded by agencies like DRDO, KSCSTE etc.

About National Mission on Power Electronics Technology (NaMPET): NaMPET is a national mission programme launched by the Department of Electronics and Information Technology (DeitY) under Ministry of Communications & Information Technology (MCIT), Govt. of India, with a vision to provide the country with capability to become a dominant player in Power Electronics Technology. Through this National level R&D Programme, Research, Development, Deployment and Commercialization of Power Electronics Technology is envisaged by enhancing the indigenous R&D expertise and infrastructure in the country with active participation from academic institutions and industries. Centre for Development of Advanced Computing, CDAC, Thiruvananthapuram, a premier R&D organization under DeitY, is the Nodal Centre co-ordinating the activities of NaMPET. The first phase of the programme was successfully completed in 2010 and the activities under NaMPET Phase I focused on R&D, infrastructure and awareness creation. NaMPET has been successful in establishing a good network of premier academic institutes and industries. Considering the impact created by the activities under the first phase of NaMPET, DeitY initiated the second phase of NaMPET (NaMPET Phase-II) in January 2012 for five years aiming further strengthening power electronics technology base in the country.

About Centre for Development of Advancement Computing (CDAC): C-DAC undertakes application oriented research, design and development in electronics, so as to generate state-of-the-art producible, marketable, and field maintainable products and systems. The Power Electronics group has wide experience of developing successful power electronics products/systems, and a very good industry interaction by way of transfer of technology field implementation etc. It has very close association with

reputed academic institution like IISc, IITs, NITs etc. The C-DAC has contributed significantly to the growth of industry through indigenous development of commercially viable products and systems, foreign technology absorption, consultancy and training and turnkey implementation of contract projects.

About TEQIP Phase II: The Technical Education Quality Improvement Programme (TEQIP) of Government of India, Ministry of Human Resource Development is aiming at the transformation of the Technical Education System in India. TEQIP is implemented with assistance from World Bank. The programme started in 2003 and is being implemented in phases. Phase I is already completed and presently TEQIP Phase II is being implemented.

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**National Workshop
&
Paper Presentation**

**Research Challenges in Power
Electronics and Power Systems
(RCPEPS -2016)**

6th -7th May 2016

Organized by



Department of Electrical Engineering
National Institute of Technology Calicut

Under the aegis of

TEQIP - Phase II



NaMPET Phase II
National Mission on
Power Electronics Technology
Towards Power Electronics Excellence

Preamble:

In recent years there has been a lot of emphasis on creating a low carbon foot-print of electric power generation system, which implies the proper integration of renewable energy sources by maintaining the quality of power delivered. A stable and well maintained energy efficient grid is the future of electric power system. Integration of renewable energy sources requires in-depth knowledge of modern power electronics, where power is processed through semiconductor switches with high efficiency. For the last few decades power electronic systems has become an essential part in various applications. like power systems, aerospace, telecommunication, defense, marine, industrial drives and electric vehicles.

This workshop on power electronics and power systems will update the participants on the latest research trends in power electronics and power systems. The programme will provide an opportunity for the budding researchers to discuss and interact with fellow researchers and experts from academia and industry. The paper presentation aims to encourage and motivate the researchers and students to do innovative research work in the area of power electronics and power systems by providing an opportunity to present and discuss their work in front of Academic/Industrial experts

Workshop Contents:

- Technical talks by expert speakers from industries, IISc/IITs/NITs
- Technical talks will be based on the following topics
 1. Power Electronic Converter Topologies and Control
 2. Power Electronic Drives
 3. HVDC & FACTS
 4. Custom Power Devices
 5. Renewable Energy Source Integration and Microgrids
 6. Smart grid technologies
- Paper presentations by Research scholars and PG students from various institutes based on the above topics

Paper Presentation Contest Guidelines:

- Research scholars/ PG students from approved engineering colleges/universities can participate and present papers
- Single page abstract (pdf format) on any topic relevant to the workshop should be sent to rcpeps2016@nitc.ac.in by 31-Mar-16
- The abstract should contain the paper title, relevance of the work, innovative contributions made, discussion of results and future scope of the work along with the name, affiliation, email and contact no. of the author
- Authors of the selected abstracts should make an oral presentation during the workshop
- Workshop registration is mandatory for participating in paper presentation contest. Also there will be additional charges for participation in paper presentation (Visit [online registration link](#) for details)
- Top three presentations under different domains shall be awarded certificates and prizes
 - 1st prize: Rs. 7,500/-
 - 2nd prize: Rs. 5,000/-
 - 3rd prize: Rs. 2,000/-

Who can participate?

- Faculty members, Research scholars and PG students of approved engineering colleges and universities
- Industry professionals working in the related area.

How to register?

- Step 1: (*Applicable only for paper presentation contest participants*) Email the abstracts & on intimation of acceptance, go to Step 2
- Step 2: Pay the registration fee and email a copy of the payment receipt to rcpeps2016@nitc.ac.in
- Step 3: Fill up the [online registration link](#) available at <http://www.nitc.ac.in>

Registration Fee:

Rs. 500/- (Research Scholars / PG students)
Rs. 1,500/- (Faculty / Working Professionals)

Mode of Payment: Online Payment

Account Holder Name: Power Electronics
Account Number.: **34743361812**
IFSC Code: SBIN0002207
Bank/Branch: SBI, REC Chathamangalam, Calicut. (*Enter your name in transaction remarks*)

Important Dates:

Last date for submission of abstracts	31 March, 2016 8 April 2016
Confirmation of acceptance of abstracts	15 April 2016
Last date for registration for presentation/participation	22 April 2016
Confirmation of registration	28 April 2016

Accommodation:

Accommodation facilities can be arranged at NITC Hostels subject to the availability based on prior request.

Hostel Type	Existing Tariff (per room per day)
International Hostel (Triple sharing rooms)	Rs. 450
Student Hostel (Twin sharing rooms)	Rs. 250

NIT Calicut: National Institute of Technology Calicut was founded as Regional Engineering College, Calicut in 1961. Set in a picturesque at the foothills of the Western Ghats, it is located about 22 kilometers north-east of Calicut city. It is prestigious institute with a reputation for excellence at both undergraduate, postgraduate and research levels.

Dept. of Electrical Engineering: Established in 1961, the Department of Electrical Engineering of the National Institute of Technology Calicut offers programmes leading to Bachelor's Degree, Master's Degree as well as Ph.D. The four year undergraduate programme leads to the Bachelor of Technology (B. Tech) degree in Electrical and Electronics Engineering. Specializations for the Master's level programmes are (i) Instrumentation & Control Systems (ii) Power Systems (iii) Power Electronics and (iv) Industrial Power and Automation, (v) High Voltage Engineering. The major research groups in the Electrical Engineering department are Control & Instrumentation, High Voltage Engineering, Power & Energy, Machines & Power Electronics, Industrial Power & Automation. In addition to