

AICTE Sponsored Two Weeks  
Faculty Development Programme  
on

**“Research Perspectives on Power  
Converters, Controls and Hybrid  
Integration of Renewable Energy Sources”**

17<sup>th</sup> to 28<sup>th</sup> February, 2020

**REGISTRATION FORM**

1. Name in block letters: \_\_\_\_\_

2. Designation: \_\_\_\_\_

3. Qualification: \_\_\_\_\_

3. Name of the Institution: \_\_\_\_\_

4. Address: \_\_\_\_\_

5. Mobile Number: \_\_\_\_\_

6. Email id: \_\_\_\_\_

7. Payment Details:

DD/Cheque Number: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Bank Name: \_\_\_\_\_

Branch: \_\_\_\_\_

Signature of the Head of the  
Institution with seal

Applicant's Signature

**Chief Patron**

Dr. Mohan Manghnani  
Chairman, NHEI, Bangalore

**Patron**

Dr. Manjunatha  
Principal, NHCE, Bangalore

**Advisory Committee**

Dr. Prashanth CSR  
Prof & Dean – Academics, NHCE  
Dr.K.Gopalakrishnan  
Prof & Dean – R&D, NHCE

**Convener**

Dr. S. Ramkumar  
Head-Electrical and Electronics Engineering

**Organising Secretary**

Dr Sujitha S  
Electrical and Electronics Engineering

**Organising Coordinators**

Dr.Gunapriya B  
Dr. Singaravelan A

**Organising Committee**

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Dr. Prasanth Ram. J  
Prof. Inbasakaran. S  
Prof. Joshua Daniel Raj  
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Prof. Karthika. M  
Prof. Sunil S K  
Prof. Roopa. C  
Prof. Muni Prakash



**NEW HORIZON  
COLLEGE OF ENGINEERING**

Autonomous College Permanently Affiliated to VTU, Approved by AICTE & UGC  
Accredited by NAAC with 'A' Grade, Accredited by NBA  
New Horizon Knowledge Park, Ring Road, Bellandur Post, Bengaluru 560 103

The Trust is a Recipient of Prestigious Rajyotsava State Award 2012 Conferred by the Government of Karnataka  
Awarded Outstanding Technical Education Institute in Karnataka-2016



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Organized by  
Department of Electrical and Electronics Engineering  
in association with



[www.newhorizonindia.edu](http://www.newhorizonindia.edu)



## About the College:

New Horizon College of Engineering (NHCE) is an Autonomous College affiliated to Visvesvaraya Technological University (VTU), approved by All India Council for Technical Education (AICTE) & University Grants Commission (UGC). NHCE has been accredited by NAAC with 'A' GRADE & National Board of Accreditation (NBA). It is an ISO 9001:2008 certified Institution.

## About the Department:

Electrical and Electronics Engineering is one of the prestigious branches of Engineering, originated decades ago, from which various other branches like Electronics & Communication, Computer Science, Information Science etc., have emerged. A critical investigation into the modern state-of-the-art technology leads to the fact that an electrical graduate fits better in today's corporate sector.

The energy shift now under way is as much geographical as it is technological. In fact, Iceland stands 178th position in global population and 1st in electricity consumption per capita (kWh per person).

As of 2015, total thermal installed capacity stood at 189.3 GW, hydro and renewable energy totalled 41.6 GW and 35.8 GW, respectively. The utility electricity sector in India had an installed capacity of 284.303 GW as of 31 December 2015 from "All India Installed Capacity (In MW) of Power Stations".

Graduates from Electrical and Electronics Engineering are grounded in mathematical, with other subject knowledge like Electronics & Communication, Computer Science and Technical Knowledge through coursework that is relevant to current technology; they develop the ability to synthesize and envisage solution to real time problems through their immersion in the problem-based activities at New Horizon College of Engineering.

## About the Faculty Development Program:

Power electronics is interdisciplinary in nature and used in a wide variety of applications, such as a cell phone charger, a personal computer, a microwave oven, an MRI system, a hybrid electric car, or even the electrical grid. The importance of power electronics has grown over the years due to several factors. A few of these are the advent of smart power devices and the increasing global concerns about the effects of environmental pollution. Smart power devices are expected to become ubiquitous and revolutionize the way power is handled. Electric vehicle is currently looked upon as a promising solution to curb urban pollution. Also, to avoid the pollution due to setting up of new power generating stations, power electronics has been called upon to ensure better utilization of existing capacity. The integration of power electronics with renewable energy sources such as solar and wind has a vast potential to meet the energy scarcity.

## Topics to be covered

- Importance and Recent Challenges in Renewable Energy Sources.
- Power Converter an overview.
- Role of Power Converters in Application to Renewable Energy Resources.
- Challenges in Design for Inductor and Capacitor Values for Power Converters.
- Introduction to Non-Isolated DC-DC Converters
- Energy Management System and its importance in Grid Interface.
- Introduction to Smart Grid.
- Usage of Modern Tools like MATLAB and PSPICE to model PV and Wind Energy Systems.

## Resource Persons

Experts from industry will handle the FDP.

## Eligibility

This programme is open to the faculty members of Electrical Engineering and allied branches, Basic Science departments of AICTE approved Engineering Colleges.

## Registration

The participants can use the registration form available overleaf. All shortlisted candidates are required to confirm their participation by sending a hard copy registration form and DD/Cheque of Rs.500/- in favour of "The Principal, NHCE, Bangalore". The amount will be refunded to the participant after valedictory function.

**Note:** The certificate will be issued to those participants who have attended the programme for all sessions.

## Important Dates

Last date for receiving scanned registration form through e-mail: nhceiot@gmail.com is 31/01/2020.



## Address for communication

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**New Horizon College of Engineering - Bengaluru**  
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