ABOUT THE INSTITUTION

New Horizon College of Engineering is an Autonomous college affiliated to Visvesveraya Technological University (VTU), approved by the All India Council for Technical Education (AICTE) and University Grants Commission (UGC). It is accredited by NAAC with 'A' grade & National Board of Accreditation (NBA). New Horizon college of Engineering is located in the heart of the IT capital of India, Bangalore. The college campus is situated in the IT corridor of Bangalore surrounded by MNCs and IT giants. NHCE has a scenic and serene campus that provides an environment which is conducive for personal and intellectual growth. The infrastructure acts as a facilitator for the effective delivery of the curriculum. NHCE boasts of state-of-the-art facilities for its students. They are given utmost encouragement in their areas of interest by providing hi-tech facilities backed by faculty support.

ABOUT THE DEPARTMENT OF R&D

The Department of Research and Development has unparalled facilities, proactive initiatives to promote research (both sponsored and academic research) and consultancy. The vibrant R&D culture fosters innovative spirit to kindle the young minds at the campus under the able guidance and mentorship of motivated faculty members at all the departments. The sustained and passionate efforts of R&D at NHCE have carved a niche in India and abroad for NHCE.

ABOUT THE DEPARTMENT OF EEE

The Department of Electrical & Electronics Engineering (EEE) at New Horizon College of Engineering (NHCE), Bangalore. EEE is one of the prestigious branches of Engineering and one among the oldest departments of NHCE-Bangalore started in 2001. The EEE Department has been playing a vital role in producing Engineers and Technologists of high caliber ever since it was established in the year 2001. The Department is accredited by NAAC with 'A' Grade and accredited by NBA. The Department is inclined towards bridging the gap between Industry and academia by collaborating with Multinational Companies in the field of Electrical Engineering. Indo-French Center of Excellence in Electricity, Automation and Energy (IFCEEAE) is one such initiative evolved through "MoU" with French Ministry of National Education and Schneider Electric India Pvt. Ltd.

ORGANISING COMMITTEE

Chief Patrons

Dr. Mohan Manghnani
Chairman
New Horizon Educational Institution

Mr. Dhermesh Manghnani
President
New Horizon Educational Institution

Patrons

Dr. Manjunatha
Principal

Dr. R. J. Anandhi
Dean - Academics

Dr. Revathi V
Dean – R&D

Convenors

Dr. Sujitha S
Professor & HoD - EEE

Dr. Vinoth Kumar K
Professor - EEE & Associate Head - R&D

Coordinators

Ms. Kavitha Chenna Reddy
Senior Assistant Professor - EEE

Ms. Anitha A
Senior Assistant Professor - EEE

Ms. Soumya K V
Assistant Professor - EEE

Ms. Sangeetha C N
Assistant Professor - EEE

Ms. Surat Pyari Atti
Assistant Professor - EEE

Ms. Anitha Nair A S
Assistant Professor - EEE

Ms. Pooja Jose
Assistant Professor - EEE

NEW HORIZON COLLEGE OF ENGINEERING

Department of Research and Development
Department of Electrical and Electronics Engineering

Jointly organise

Short Term Training Programme (STTP)

on

Research Challenges in Advanced Power Converters for Industrial Electronics Applications

12th - 13th November 2025

Sponsored by

IEEE Industrial Electronics Society | IEEE

In Association with

IEEE Industrial Electronics Society, New Horizon College of Engineering, IE13 | IEEE IES Bangalore Chapter

THEME OF THE PROGRAMME

Power Electronics System act as the interface between renewable energy sources and the grid. This STTP addresses the fundamentals of power generation technology from renewable energy sources particularly wind and solar power. The workshop covers the control and management of power electronic converters and energy storage components during interfacing wind and solar sources with the grid. The design of power electronic converters is treated in depth, including conventional and emerging converter topologies to optimize the energy conversion and transmission, to control reactive power, to minimize harmonic distortion, to achieve low cost, to increase efficiency over a wide power range and to have high reliability. It also focuses on power quality issues of renewable energy systems and associated smart energy management principles. It is also aimed at bringing the academia and technocrats on one platform to discuss common interests, existing challenges, concerns and problems that comply with international standards and the possible solutions of grid integration of renewable energy systems. Finally the expected trends in power electronics technology for renewable energy systems will be discussed. The event aims to bring together the experts in the field of Power Electronics & Renewable energy from working professionals and academicians to provide an interactive forum to discuss and exchange their visions, experiences, and solutions for up scaling and mainstreaming renewable energy to achieve sustainable economic growth.

PROGRAMME CONTENT

The programme covers the following important aspects

- Introduction about Power Converters.
- Trends in Power Electronics.
- Modelling of Converter to utilize Fuel cell as a Compensator in a Distributed Generation System.
- Applications of Power Electronics Converters in DFIG.
- Design of Autonomous control of micro grid by Power Electronics Converters.
- Design of Power Converters for Solar Photovoltaic Systems.
- Advanced Power Electronics Technologies on Solar Photovoltaic and Wind Power.
- Design of Power Converters for Fuel Cell Systems.
- Design of High Gain DC-DC Converters for PV Applications.
- Role of Data Mining and Artificial Intelligence in Electrical Engineering.

ABOUT THE RESOURCE PERSONS

Faculty members from IIT, NIT, reputed Insitutions and industry will be conducting the theory and practical sessions in the STTP.

WHO CAN ATTEND?

Faculties, Research Scholars, UG and PG students from AICTE approved institutions are eligible to the STTP.

IMPORTANT DATE

Last date for registration : 08.11.2025

COURSE DURATION

Offline sessions for 2 days (2 Hours each session)

REGISTRATION

Classification	Fee
IEEE Members Category: B.E / B.Tech Students / PG Students / Research Scholars / Faculty Members / Industry	₹ 600

The registration fee should be paid only through online mode.

The registration fee is inclusive of GST and cost towards course material, lunch and refreshment.

HOW TO APPLY?

The participant has to register through the portal given below.

https://forms.gle/FwtHscERtzGAyAZB8

SELECTION AND CERTIFICATION CRITERIA

Selection will be based on first-come, first-serve basis. Maximum of 60 participants may be allowed to attend the offline STTP. The selected candidates will be notified on or before 09.11.2025

FOR FURTHER CLARIFICATIONS

Dr. Vinoth Kumar K

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