About the Institution

New Horizon College of Engineering is an autonomous college affiliated to Visvesvaraya Technological University (VTU), approved by the All India Council for Technical Education (AICTE) and University Grants Commission (UGC). It is accredited by NAAC with an 'A' Grade and The National Board of Accreditation (NBA). New Horizon College of Engineering (NHCE) 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 the 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

The Department of Electrical and Electronics Engineering (EEE) at New Horizon College of Engineering (NHCE), Bangalore 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 is accredited by the NBA. The vision of EEE Department is to create contemporary Engineers, Innovators and Entrepreneurs to make a better nation and in turn, a better world. A critical investigation and innovation into the modern state-of-art and cutting edge technology lead to the fact that an electrical graduate fits better in today's competitive world. The strength of the Department are highly qualified faculty members with expertise in various fields of Electrical Engineering, state-of-the-art laboratory facilities.

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.

ORGANIZING COMMITTEE

Chief Patrons
Dr. Mohan Manghnani
Chairman
New Horizon Educational Institutions

Mr. Dhermesh Manghnani
President
New Horizon Educational Institutions

Patrons
Dr. Manjunatha
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Dr. R J Anandhi
Dean - Academics

Dr. Revathi V
Dean - R&D

Convenors
Dr. Sujitha S
HoD - EEE

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

Coordinators

Ms. Kavitha Chenna Reddy
Senior Assistant Professor - EEE

Ms. Sangeetha C N
Assistant Professor - EEE

Ms. Soumya K V
Assistant Professor - EEE

Ms. Anitha Nair A S
Assistant Professor - EEE

For further clarification contact
Dr. Vinoth Kumar K
Professor and Associate Head - R&D
Department of Electrical and Electronics Engineering
New Horizon College of Engineering, Bengaluru
E-mail: dr.vinothkumar@newhorizonindia.edu
Mobile : +91 99448 08092

NEW HORIZON COLLEGE OF ENGINEERING

Department of Electrical and Electronics Engineering

SERB INDIA

अनुसंधान नेशनल रिसर्च फाउंडेशन
Anusandhan National Research Foundation
(Government of India)

Sponsored

Seminar on

Research Potential in Power Electronics Converters for Renewable Energy

17th - 18th September 2025

File Number: SSY/2025/000557

Theme of the Programme

This seminar is designed to address research advancements in Power Conversion Topologies and applications in the industry and to encourage various zonal Professionals'/Students/Academicians towards research and for their Academic Quality Improvement too. This course will offer a unique opportunity to all the participants in the relevant topics in Real Time Power Electronic Systems and its applications through theoretical sessions and simulation plus laboratory-based experiments and demonstrations. It is due to development of switching devices, magnetic components, control techniques, computational methods, DSP/FPGA controllers, and so on.

Applications of power electronics can be found in several areas like Renewable Energy, Industry, Transportation, Medical, Telecommunication, Residential Energy Systems, Electric vehicles and so on. Certain low and high power switching converters are developed in these areas. Also, this seminar aims at giving scope for future research.

The Main Objectives

- To explore the latest research trends and breakthroughs in Advanced Power Electronics and renewable energy technologies.
- To introduce participants to the fundamental principles and applications of Advanced Power Electronic Devices, Systems, and Controllers.
- To understand the integration of renewable energy sources into Power Systems and Grid Technologies.
- To encourage collaborative research and inter-institutional networking among faculty members in the fields of Power Electronics and Renewable Energy.

Programme Content

The programme covers the following important aspects

- Power converters for renewable energy interface.
- High Power Density Converters for electronic products.
- High Bright LED lighting systems for indoor/outdoor applications.
- Advanced Electric Drives and Control Techniques for EVs.
- Energy Efficient Drives especially for elevators.
- Hands on exposure to renewable integration and power converters.
- Enabling technologies for high power density converters.
- Advancements in Power Electronics with Wide Bank Gap Device.
- Intelligent Integration of Renewable Energy Sources in to the Grid.
- State of Art Power Electronic Converters for EV.
- Challenges in Grid Integration of Renewable Energy Resources.
- Soft switched LED Drivers for Automotive applications.
- Wireless Power Transfer for High End and Low End EV Cars.
- Advanced Electric Drives and Control Techniques for EVs.
- Computational Intelligence model for Renewable Energy Applications.
- Impact of Renewable Energy in Distribution System.
- Application of Power Electronic Controllers in Renewable Energy System.
- Role of Power Electronics in Smart Cities.
- Power Electronics Applications in Renewable Energy and Electric Vehicles.
- Powering the Future: Synergies Between Renewable Energy and Electric Vehicles and Emerging Research Opportunities.

Who can attend?

Faculties, Research Scholars and Students from AICTE approved institutions are eligible for the seminar.

Last date for registration : 02/09/2025

Selection Criteria

Selection will be done based on first-come-first-serve basis to a maximum number of 60 (Sixty).

Registration

Classification Fee

B.E / B.Tech Students / PG Students / Research Scholars / Faculty Members / Industry

₹ 1000

The registration fee should be paid only through online mode.

The applicants are requested to submit their registration forms in the link given below.

https://forms.gle/EbUA1ERD3fruL1gPA

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