

An Online One Week Short Term Course
On
**Power Electronic Interface and
Drives for Electric Vehicles**

PEIDEV-2021

13th November - 17th November, 2021

Organised by



Electrical Engineering Department
Motilal Nehru National Institute of Technology
Allahabad, Teliarganj, Prayagraj-211004
India.

RESOURCE PERSON

The speakers for the course will be the faculty/ domain experts from IITs, IISc, NITs, other organisations and Industry /Abroad.

ORGANIZING COMMITTEE

PATRON

Prof. Rajeev Tripathi
Director, MNNIT Allahabad

CHAIRMAN

Prof. Rajesh Gupta
Head, EED, MNNIT Allahabad

COURSE COORDINATORS

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COURSE OBJECTIVE

The increased environmental concerns and depleting oil reserves have led the world researchers towards alternative electric vehicles. Out of various available alternative vehicles the electric vehicles (EVs) have gained the special interest and there is a substantial growth of usage in 21st century. The main objective of this short term course is to raise awareness on recent trends, challenges and various research opportunities in modern electric vehicle technology. The EV need power converters for key operations like charging of batteries, power control and power supply low power loads. There are lots of research advancements done in the area of electric drives and a careful study on the same is much in need. The participants would be exposed to the research updates on power electronics and drives for EV. As more and more EVs comes into the market, the necessary charging infrastructure is to be established and a research focus should also on the impact of EV charging on distribution systems and power quality issues arise on grid side. On the other hand the EVs are highly dependent on energy storage technologies. The batteries and ultra-capacitors have been used extensively as electrical energy storage systems in EVs. The participants would be exposed to the key research areas like various charging schemes of EV, charging infrastructure and fast charging stations.

IMPORTANT DATES

Last date for online registration: ~~25/10/2021~~,
05-11-2021.

Course dates: **13/11/2021 - 17/11/2021**

COURSE EVALUATION

On successful completion of the course, the participants would be awarded 'Course Completion E-Certificate'.

COURSE CONTENT

The course will be interactive consisting of the following components

- ✓ Power rectifiers, choppers and Inverters for EV
- ✓ Advanced electric drives for EV
- ✓ Impacts of EV charging on distribution network.
- ✓ Impact of EV Charging on power quality of grid
- ✓ Battery swapping stations
- ✓ Advancements in batteries and ultracapacitors design
- ✓ Recent trends in wireless charging schemes for EV
- ✓ Fast charging stations for EV
- ✓ Smart grid congestion due to EV charging

ABOUT THE INSTITUTE

Motilal Nehru National Institute of Technology Allahabad, (MNNIT) (formerly Motilal Nehru Regional Engineering College MNREC, Allahabad) is an institute with total commitment to quality and excellence in academic pursuits. It is among one of the leading institutes in India. It was established in the year 1961 as a joint enterprise of Central Govt. of India and State Govt. of Uttar Pradesh in accordance with the scheme of establishment of REC's. However with effect from June 26th of 2002 the institute became deemed university and an Institute of national importance.

ABOUT THE DEPARTMENT

The Electrical Engineering Department (EED) came into existence in the year 1961, with the objective to produce technical manpower of high quality and promote research and development activity. With a modest beginning of introducing four year BE degree course in 1961, a post graduate programme in Electrical Machine / Power System / Control System was introduced in the year 1970-71.

Currently, the department offers courses leading to a Bachelor of Technology in Electrical Engineering and Post Graduate (M. Tech.) and Ph.D programs in (i) Power Electronics and Drives (ii) Control & Instrumentation and (iii) Power System, under Regular, Part-Time and QIP categories. The department has qualified and experienced faculty in all the related fields of Electrical Engineering viz. Electrical Power System, Electrical Machines, Control & Instrumentation and Power Electronics.

The vision of the Department is to produce globally competitive technical manpower with sound knowledge of theory and practice, with a commitment to serve the society and to foster cutting edge research in Electrical Engineering pertaining to the problems currently faced by the country and the world.

WHO CAN ATTEND?

The course would benefit many across various disciplines of engineering and technology. It is of interest to serving teachers and researchers, UG, PG and doctoral students of different Universities/ Institutes/ colleges & Professionals working in the Industries. Selected candidates will be informed through email

FEE STRUCTURE

Participants from Abroad: 25 dollars
Participants: Industry and R&D Units: Rs.1500
Faculty/Academic Staff: Rs. 1000/-
UG, PG Students and Ph.D Scholars: Rs.750/-

ONLINE PAYMENT OF COURSE FEES

Bank account information for direct transfer of registration fee for PEIDDEV-2021
Account Name: PEIDDEV-2021.
Account Number:77660200001295
IFSC Code: BARB0VJMNRE
Bank: Bank of Baroda
Branch: MNNIT Allahabad

ONLINE REGISTRATION

After paying registration fee by any online mode, kindly capture an image of proof for the payment. The participants have to register for the course online at the following registration portal and send the registration form to venkateshn@mnnit.ac.in

Registration Link:

<https://forms.gle/TJHGrBrUZE3PSRzv9>

MAILING ADDRESS

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