



ANJUMAN-I-ISLAM'S

KALSEKAR TECHNICAL CAMPUS, NEW PANVEL

Approved by : All India Council for Technical Education, Council of Architecture, Pharmacy Council of India New Delhi,
Recognised by : Directorate of Technical Education, Govt. of Maharashtra, Affiliated to : University of Mumbai.

☒ SCHOOL OF ENGINEERING & TECHNOLOGY

☐ SCHOOL OF PHARMACY

☐ SCHOOL OF ARCHITECTURE

DEPARTMENT OF ELECTRICAL ENGINEERING

EXPERT LECTURE REPORT

School/Department: SoET, Electrical & Computer Engineering Department

Name of resource person:	Prof. Anagha Malkapurkar
Designation:	Assistant Professor A. C. Patil college of Engineering, Kharghar
Contact details:	9224655629 Email:- avmalkapurkar@acpce.ac.in
Date of expert lecture:	25th March, 2025
Title of Lecture:	Industrial Applications of Power Electronics along with ML
Event Co-ordinator	Prof. Shraddha Sawant
Target audience:	Second Year Electrical Students
Number of Beneficiaries	25 Students

DETAILS OF EXPERT LECTURE:

Aims/ Objectives:	The aim of the expert talk was to provide second-year Electrical Engineering department students with in-depth knowledge and insights on power electronics application along with machine learning, a cutting-edge technology in the field of electronics and ML. The objective of the expert talk was to educate students on the principles, applications, and challenges of new application related to topic, and to inspire them to pursue research and innovation in this area.
Description of Expert lecture:	The expert talk was conducted online on 25 th March 2025 and was attended by second-year Electrical Engineering department students. The speaker, Assistant Professor Anagha Malkapurkar, a renowned expert in the field of power electronics, delivered a comprehensive presentation on industrial applications of power electronics and machine learning. The talk covered topics such as the Future perspective for smart grid, battery management, electric vehicle, AI applications in power systems, and the challenges and future directions of research in this area. Also, she has demonstrated a lab for AI model for DC to DC converter in python. All in all, it was a wonderful talk and we did receive very good feedbacks about the speaker and the contents of the talk.

Innovative Teaching - Exuberant Learning

Vision : To be the most sought after academic, research and practice based department of Electrical Engineering that others would wish to emulate.



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Celebrating
150
years of
ANJUMAN-I-ISLAM

Department of Electrical & Computer Engineering in Collaboration with IEI students Chapter Organize Expert Session on **Industrial Applications of Power Electronics along with ML**

TUE
DAY

MARCH
25

TIME
10:30
am



Prof. Anagha V. Malkapurkar

Assistant Professor
A. C. Patil College of
Engineering Kharghar

Future Prospects

- Integration with Smart Grids:** AI-controlled rectifiers could play a crucial role in smart grid systems, where power electronics devices must dynamically adapt to variable energy sources and demand conditions.
- Machine Learning Algorithms for Advanced Control:** As AI research progresses, more sophisticated machine learning models could be used to optimize the entire power conversion process, including controlled rectification, across a wide range of applications.

Anagha

WASIM SHAIKH

Hamza

Mohammed Ab...

Hassan

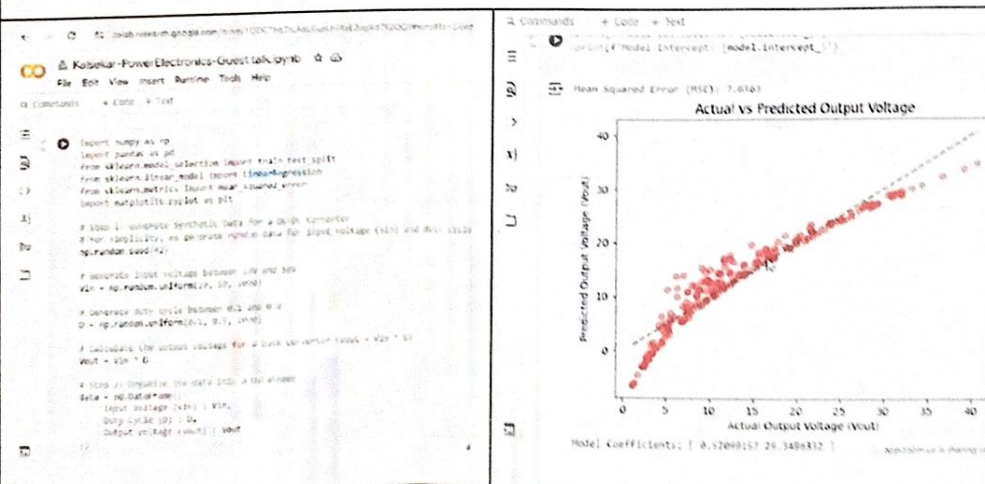
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Abuzar 22EE16

Ayush Kadam

Divyanshu Reddy



Outcome of Expert Lecture: The expert talk was highly successful in achieving its objectives. The students gained valuable insights into the technology and its applications, and were inspired to explore research opportunities in this area.

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COs addressed: Students are able

CO1 To illustrate (L2) the importance of power electronic and machine learning in industrial application and other domains


CO2 Analyse (L4) dc to dc converter circuits and their applications.


PSOs addressed:


CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO1	3	2										
CO2	3	2										
CO3	3	2										

Pos addressed:

CO	PSO1	PSO2
CO1	2	1
CO2	2	1
CO3	2	1


Dr. Afzal Shaikh
HOD, ECE


Dr. Rajendra B. Magar
Dean, SoET


Dr. Ramjan Khatik
Director, AIKTC