Centre of Excellence for Electric Vehicles and Related Technologies

Department of Electrical Engineering

DELHI TECHNOLOGICAL UNIVERSITY

Two Days Workshop

on

"Real-Time Simulator Applications in EV Domain"

18th - 19th November, 2026



Chief Patron

Prof. Prateek Sharma
Hon'ble Vice Chancellor, DTU, Delhi

Patron

Sh. Binod Doley
Registrar, DTU, Delhi

Convener(s)

Prof. Narendra Kumar
HoD, EED, DTU

Prof. Uma Nangia
CoE for EVRT, DTU

Co-Convener(s)

Prof. Alka Singh
Associate HoD, EED, DTU

Prof. M. Rizwan
CoE for EVRT, DTU

Coordinator(s)

Dr. A. R. Kulkarni
EED, DTU



Chief Guest & Keynote Speaker

Prof. Bhim Singh
ANRF Prime Minister Professor,
NSUT Delhi



Spekers



Dr. Ritula Thakur
Associate Professor & HoD,
National Institute of Technical Teachers' Training and Research (NITTTR), Chandigarh

Dr. Prerna Gaur
Professor, Netaji Subhas University of Technology (NSUT), New Delhi

OBJECTIVES

- To introduce real-time simulation (SIL/HIL) and its role in EV development.
- To demonstrate real-time testing and validation of EV powertrains, converters, and control systems.
- To showcase industry and research applications in EV domain.
- To discuss emerging tools, use-cases, and future trends in EV system development.

ABOUT THE WORKSHOP

The rapid development of Electric Vehicles (EVs) has increased the need for advanced tools and methodologies for modelling, testing, and validation of EV powertrains, batteries, power electronic converters, motor drives, charging systems, and control strategies. Conventional offline simulation is useful for system design and analysis; however, it has its limitations in validating the interaction between simulation models and actual controllers or hardware. Real-Time Simulation and Hardware-in-the-Loop (HIL) provide an effective bridge between simulation and experimental testing by enabling EV system models to run in real time and interact with actual control hardware.

The proposed two-day workshop on "Real-Time Simulator Applications in EV Domain" aims to provide participants with an understanding of the principles, workflows, and practical applications of real-time simulation and HIL technology in EV systems. The workshop will include demonstrations and hands-on exposure to applications such as EV powertrain modelling, battery systems, power electronic converters, motor drives, EV charging, controller validation, and fault-condition testing. The programme is intended to strengthen the knowledge and skills of researchers, students, and industry professionals in the adoption of real-time simulation for EV research, laboratory experimentation, rapid prototyping, and system validation.

Who can Participate: *M.Tech Students, PhD scholars and interested Faculty Members*

WORKSHOP HIGHLIGHTS

- Overview of Real-Time Simulation & HIL
- EV Powertrain Modelling and Testing
- Battery System Modelling & Validation
- Power Electronic Converters & Motor Drives
- EV Charging and Control Strategies
- Fault-Condition Testing
- Hands-on Demonstrations

Last Date to Apply : 16th November, 2026

OPAL-RT TECHNOLOGIES QUARBZ PICTURES

Registration Link

For Any Query Please Contact at
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Website:
www.dtu.ac.in

Edusat Hall, DTU
9:00 AM Onwards

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