



HOPE Foundation's Finolex Academy of Management & Technology, Ratnagiri

Department of Electrical Engineering

Academic Year 2025-26

One Day Technical Workshop on “Simscape-Based Modelling of EV Systems using MATLAB & Simulink”

Date: 11/03/2026

Venue: Electrical Department EN: 0/6

The Department of Electrical Engineering at **Finolex Academy of Management and Technology (FAMT), Ratnagiri** organized a one-day technical workshop titled “**Simscape-Based Modelling of Electrical Systems using MATLAB & Simulink**” on **11 March 2026** from **3:30 PM to 5:30 PM** at **Room EN0/6**, Department of Electrical Engineering.

The workshop session was delivered by **Mr. Rohit Pawar**, Application Engineer at **DesignTech Systems Pvt. Ltd.**, an authorised partner of **MathWorks**. During the session, he provided valuable insights into the **MATLAB and Simulink ecosystem** and highlighted the importance of **physical system modelling using Simscape** for Electrical Engineering applications.

The workshop primarily focused on **practical modelling techniques using Simscape**. The major topics covered during the session included:

- Modelling of Basic Electrical Systems
- DC Motor Modelling
- Power Electronics Modelling in Simscape
- EV System Modelling in Simscape
- Comparison between PMSM and EV Powertrain Models

Mr. Pawar explained these concepts through **live demonstrations and hands-on simulations using MATLAB/Simulink**, enabling students to understand the practical aspects of system modelling.

The **target audience** for the workshop was **Second-Year Electrical Engineering students**, who actively participated in the session. Through hands-on exercises and demonstrations, students gained practical exposure to **Electrical System Simulation, Power Electronics Modelling, and Electric Vehicle System Modelling**.


Objectives of the Workshop:

1. To introduce students to the **MATLAB & Simulink ecosystem** for electrical system modelling.
2. To develop an understanding of **Simscape-based physical modelling of electrical circuits**.
3. To provide **hands-on experience in modelling DC motors and basic electrical systems**.
4. To demonstrate **power electronics and EV system modelling using Simscape**.
5. To help students understand the **difference between PMSM and EV powertrain models**.

The workshop successfully enhanced the students' understanding of **simulation and modelling techniques using MATLAB & Simulink**. The **hands-on sessions and live demonstrations** helped participants understand real-time applications of **Simscape in Electrical Systems, Power Electronics, And Electric Vehicle Modelling**. The interactive teaching approach of the resource person made the workshop **highly informative, engaging, and beneficial for the students**.

Sr. No.	Title	Content
1	Title of Program	“Simscape-Based Modeling of EV Systems using MATLAB & Simulink”
2	Nature of program	Technical
3	Name of organising committee	Electrical Department, FAMT Ratnagiri
4	Date of activity	11/03/2026
5	No of resource persons	1
6	No of staff participants from FAMT	10
7	No of student participants from another institute	NA

8	No of participants from FAMT staff	NA
9	Total no of participants	10

Signature and name of convener of authority: HoD/Convener of the committee	
Name of department/committee	EED

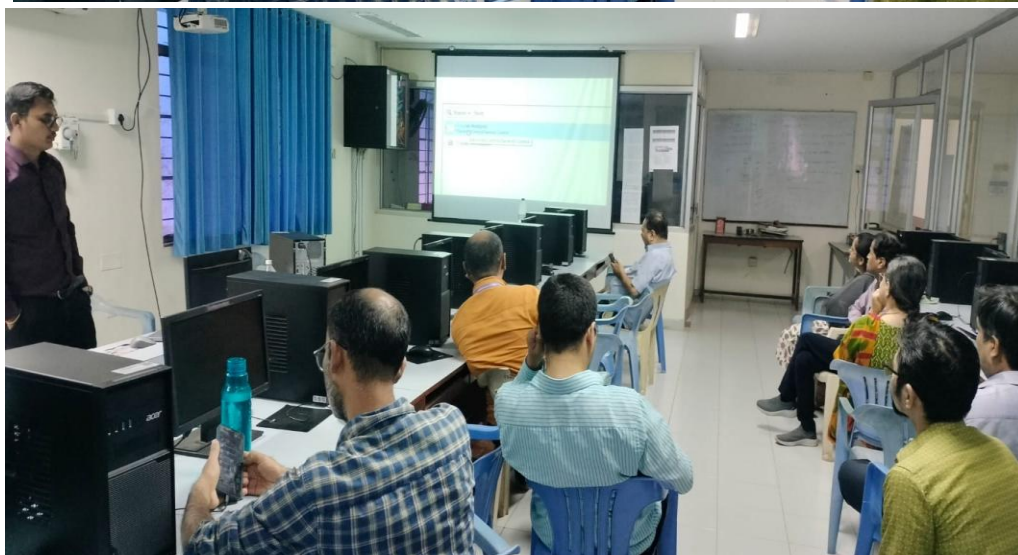
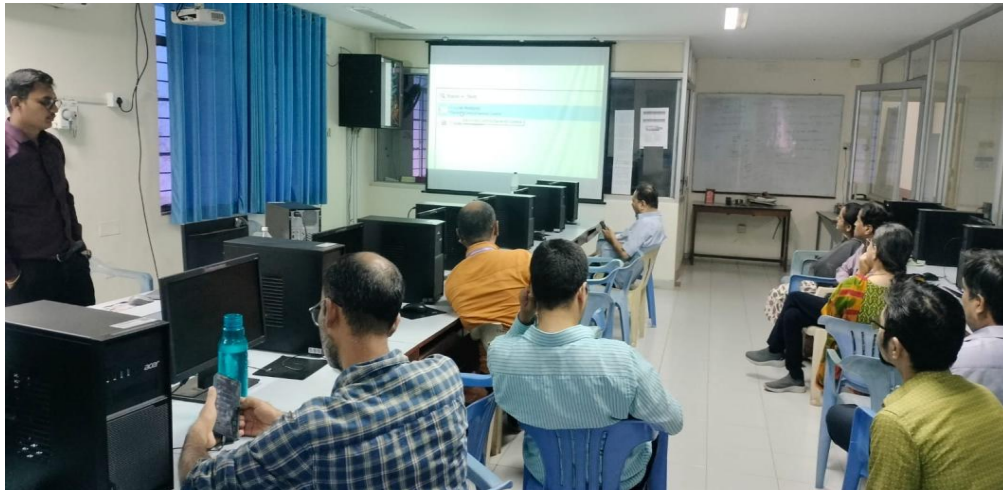


Fig. 1: Mr. Rohit Pawar delivering content to Electrical Engineering Dept Staff