**Finolex Academy of Management & Technology, Ratnagiri**

**Department of Electrical Engineering**

Academic Year 2025-26

# Simscape-Based Modelling of Electrical Systems using MATLAB & Simulink Workshop

Date: 10/03/2026 & 11/03/202

Venue: Electrical Department EN: 0/6

The Department of Electrical Engineering at **Finolex Academy of Management and Technology (FAMT), Ratnagiri** organized a two-day technical workshop titled **"Simscape-Based Modeling of Electrical Systems using MATLAB & Simulink."** The workshop was conducted on **10–11 March 2026 from 9:15 AM to 3:15 PM** at **Room EN0/6**, Department of Electrical Engineering, FAMT Ratnagiri.

The session was delivered by **Mr. Rohit Pawar**, **Application Engineer, MathWorks @ DesignTech Systems Pvt. Ltd.** He provided valuable insights into the **MATLAB & Simulink ecosystem** and explained the importance of **physical system modelling using Simscape** in Electrical Engineering applications.

The workshop focused on practical modelling techniques using Simscape. The major topics covered included **Modelling Basic Electrical Systems, DC Motor Modelling, Power Electronics Modelling in Simscape, EV System Modelling in Simscape, and comparison of PMSM with EV Powertrain Models**. Mr. Rohit Pawar explained these topics with demonstrations and hands-on simulations using MATLAB/Simulink.

The workshop was held for **Second-Year Electrical Engineering students**, who actively participated in the session. Through hands-on exercises, students gained practical exposure to **electrical system simulation, power electronics modelling, and electric vehicle system modelling**.

**Objectives of the Workshop**

- To introduce students to the **MATLAB & Simulink ecosystem** for electrical system modelling
- To develop an understanding of **Simscape-based physical modelling** of electrical circuits

- To provide hands-on experience in **modelling DC motors and basic electrical systems**
- To demonstrate **power electronics and EV system modelling using Simscape**
- To help students understand the **difference between PMSM and EV powertrain models**

**Conclusion**

The workshop successfully enhanced students' knowledge of **simulation and modelling techniques using MATLAB & Simulink**. The hands-on sessions helped students understand real-time applications of **Simscape in electrical systems, power electronics, and electric vehicle modelling**. The interactive approach and practical demonstrations made the workshop highly engaging and beneficial for the participants.

**Photos of MATLAB Simulink Workshop Of Online & Offline Sessions**


Fig1: Introducing event schedule , content and about resource person


Fig2. SE Student located in lab 1 & 2 at EN0/6


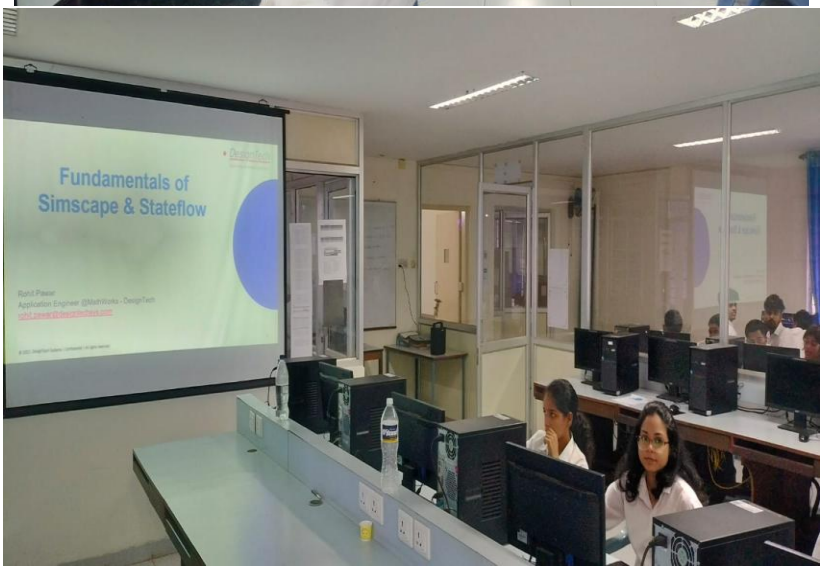


Fig3. : Mr. Rohit Pawar delivering contents to the students


GPS Map Camera
Ratnagiri, Maharashtra, India
P- 60 , P- 60/1, Midc, Mirjole Block, Ratnagiri, Maharashtra 415639, India
Lat 17.010902° Long 73.336964°
Wednesday, 11/03/2026 02:46 PM GMT +05:30
Google


GPS Map Camera
Ratnagiri, Maharashtra, India
P-60, Midc, Ratnagiri, Maharashtra 415639, India
Lat 17.010944° Long 73.337027°
Wednesday, 11/03/2026 10:39 AM GMT +05:30
Google


GPS Map Camera
Ratnagiri, Maharashtra, India
P- 60 , P- 60/1, Midc, Mirjole Block, Ratnagiri, Maharashtra 415639, India
Lat 17.010929° Long 73.336992°
Wednesday, 11/03/2026 09:46 AM GMT +05:30
Google

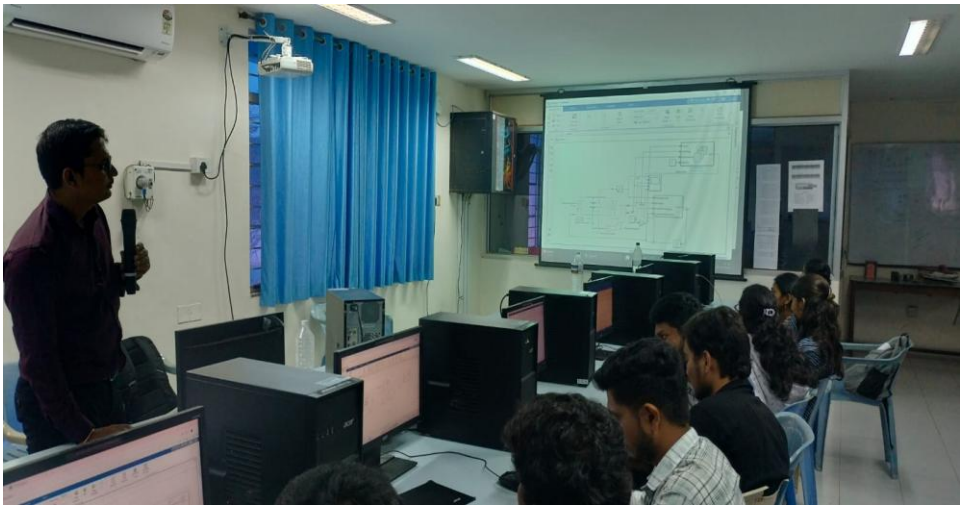

Fig 4: The students participating in the second day session in the Electrical Department lab EN 0/6

## Photos Of MATLAB Simulink Workshop Certificate

MathWorks | Training Services

Course Completion Certificate

Chinmay More

has successfully completed **100%** of the self-paced training course

Machine Learning Onramp

DIRECTOR, TRAINING SERVICES

11 March 2026

MathWorks | Training Services

Course Completion Certificate

Payal Gohad

has successfully completed **100%** of the self-paced training course

Machine Learning Onramp

DIRECTOR, TRAINING SERVICES

11 March 2026


MathWorks | Training Services
Course Completion Certificate
Pauras indap
has successfully completed 100% of the self-paced training course
Machine Learning Onramp
DIRECTOR, TRAINING SERVICES
11 March 2026


MathWorks | Training Services
Course Completion Certificate
Atharv Mane
has successfully completed 100% of the self-paced training course
Machine Learning Onramp
DIRECTOR, TRAINING SERVICES
11 March 2026


MathWorks | Training Services
Course Completion Certificate
samruddhi jadhav
has successfully completed 100% of the self-paced training course
Machine Learning Onramp
DIRECTOR, TRAINING SERVICES
11 March 2026


MathWorks | Training Services
Course Completion Certificate
HARSH KUMBHAR
has successfully completed 100% of the self-paced training course
Dates and Times
DIRECTOR, TRAINING SERVICES
11 March 2026

| Sr. No. | Title | Content |
|---|---|---|
| 1 | Title of Program | Simscape-Based Modeling of Electrical Systems using MATLAB & Simulink |
| 2 | Nature of the program | Technical |
| 3 | Name of organising committee | Electrical Department, FAMT Ratnagiri |
| 4 | Date of activity | 10/03/2026 & 11/03/2026 |
| 5 | No of resource persons | 1 |
| 6 | No of student participants from FAMT | Students from Electrical Department (SE class) =62 |
| 7 | No of student participants from another institute | NA |
| 8 | No of participants from FAMT staff | NA |
| 9 | Total no of participants | 62 |

| | |
|---|---|
| Signature and name of convener of authority:<br>HoD/Convener of committee |  |
| Name of department/committee | EED |