

# RESOURCE PERSONS

## Dr. Nafeesa K

Professor and Head, EEE Department  
MES Engineering College

## Dr. Vasanthy V

Professor and Head, EEE Department  
NSS College of Engineering

## Dr. Vinitha Chellapan

Professor EEE Department  
GEC Palakkad

## Dr. Praveen Kumar C

Asst Professor, EEE Department  
NSS College of Engineering

## Mr. Vipin Krishna R

Head, EEE Department  
Thejus Engineering College

## Mr. Sundaramoorthy,

Senior engineer, Bangalore

## Mr. Renjith PC

Energy Auditor, IIT Kanpur

## Mr. Sebin Sunny P

CEO, EIC & IIoT Sensors CoE  
IITM - K, GoK

## Mr. Akash K M

Sr. Project Engineer  
IPCS Global

## Dr Praveen P Nambissan

Head, ASH Department  
Sreepathy Engineering College

## Mr. Praveen KP

Head, EEE Department  
Sreepathy Engineering College

## Eligibility:

- This online FDP is open to faculties, research scholars, PG students from AICTE approved institutions and working professionals from industry.
- Participants will be selected on a first come first serve basis
- Seats limited to 50
- Registration Fee Rs.200/Participant

## Register Here:

<https://forms.gle/3nZNRx1KWG5ZNaDB9>



## COORDINATOR:

Ms. Saranya K P  
Assistant Professor  
EEE Department, SIMAT  
Mob: +91 9947477080  
e mail: saranya.kp@simat.ac.in

## CO-COORDINATOR:

Ms. Archana p  
Assistant Professor  
EEE Department, SIMAT  
Mob: +91 8940951906  
e mail: archana@simat.ac.in



## Six Day FDP (Online) On Advanced Trends in Renewable Energy System and Smart Power Technologies

**22nd June to 27th June 2026**

Coordinated by  
Dept. Electrical and Electronics Engineering  
Sreepathy Institute of Management &  
Technology (SIMAT)  
Vavanoor, Palakkad – 679533



# Objective

1. To understand the latest advancements and technologies in renewable energy systems and smart power networks.
2. To study the integration of renewable energy sources with smart grids, energy storage systems, and modern power electronics.
3. To analyze the role of artificial intelligence, IoT, and automation in improving power system efficiency, reliability, and energy management.
4. To develop awareness about sustainable energy solutions and future smart power technologies for environmental protection and energy security.

# Session overview

1. Introduction to modern renewable energy technologies and emerging trends in sustainable power generation.
2. Exploration of advanced power converters and their role in renewable energy integration.
3. Understanding smart energy management techniques and sustainable power utilization strategies.
4. Study of smart grid technologies and renewable energy integration challenges.
5. Insights into modern electrical drives and industrial automation applications.
6. Discussion on industrial automation techniques and advanced control methodologies.
7. Learning about control systems used in smart industrial and smart grid applications.
8. Analysis of low-inertia grid challenges associated with renewable energy penetration.
9. Examination of environmental impacts and sustainability aspects of renewable energy systems.
10. Introduction to Artificial Intelligence and predictive techniques in renewable energy applications.
11. Practical exposure to PLC programming and industrial automation systems.
12. Hands-on training on PLC applications in renewable energy and smart power technologies.

## About Department

Electrical Engineers form the backbone of modern engineering systems, contributing from power generation to distribution, communication, automation, and control. The field combines core areas such as power systems, electrical drives, instrumentation, and communication technologies, while also expanding into emerging domains like renewable energy, photovoltaic systems, wind energy conversion, fuel cells, and energy-efficient technologies. Electrical engineers work across interdisciplinary sectors including aerospace, automotive, chemical, and manufacturing industries.

The EEE Department is committed to developing skilled and industry-ready engineers equipped with strong technical knowledge, innovation, and professional competence to meet future technological challenges.

## Vision

Striving for excellence in generation and dissemination of knowledge.

## Mission

- To mould engineers of tomorrow, who are capable of addressing the problems of the nation and the world, by imparting technical education at par with international standards.
- To instil a desire in students for research, innovation, invention and entrepreneurship.
- To strive for creative partnership between the industry and the institute.
- To impart the values of environment awareness, professional ethics, societal commitment, life skills and a desire for lifelong learning



## About SIMAT

Sreepathy Institute of Management and Technology is an offspring of the Sreepathy Trust, which comprises technocrats, engineers, philanthropists, industrialists, and individuals with a shared vision of providing a platform for promoting quality higher education and research in professional disciplines. The Trust aims to ensure that deserving candidates, irrespective of caste, colour, or creed, are given equal opportunities to pursue higher education. The institute is located on a scenic, lush green hillock at Vavanoor, near Pattambi, along the Palakkad–Guruvayur Highway. The institute is approved by AICTE and affiliated with APJ Abdul Kalam Technological University. It is accredited by NAAC, and the CSE department is accredited by NBA.

# FDP SCHEDULE

## Advanced Trends in Renewable Energy Systems and Smart Power Technologies 22nd June to 27th June 2026

Session	Day 1 (22/06/2026) FUNDAMENTALS OF RENEWABLE ENERGY SYSTEMS	Day 2 (23/06/2026) ENERGY MANAGEMENT AND SMART POWER SYSTEMS	Day 3 (24/06/2026) ELECTRICAL DRIVES AND INDUSTRIAL AUTOMATION	Day 4 (25/06/2026) CONTROL SYSTEMS AND SMART GRID APPLICATIONS	Day 5 (26/06/2026) ENVIRONMENTAL AND ADVANCED RENEWABLE APPLICATIONS	Day 6 (27/06/2026) HANDS-ON TRAINING AND INDUSTRIAL PRACTICE
Session 1 6.00PM - 8.00PM	<p><b>Topic:</b> Overview of Modern Renewable Energy Technologies</p> <p><b>Speaker:</b> Dr. Praveen P nambissan</p> <p><b>Designation:</b> Head, AS&amp;H Department Sreepathy Engineering College</p>	<p><b>Topic:</b> Smart Energy Management and Sustainability</p> <p><b>Speaker:</b> Mr. Renjith PC</p> <p><b>Designation:</b> Energy auditor IIT Kanpur</p>	<p><b>Topic:</b> Modern Electrical Drives and Industrial Applications</p> <p><b>Speaker:</b> Dr. Vinitha Chellapan</p> <p><b>Designation:</b> Professor EEE Department GEC Palakkad</p>	<p><b>Topic:</b> Control Systems for Smart Industrial Applications</p> <p><b>Speaker:</b> Dr. Praveen Kumar C</p> <p><b>Designation:</b> Asst Professor, EEE Department NSS College of Engineering</p>	<p><b>Topic:</b> Environmental Aspects of Renewable Energy Systems</p> <p><b>Speaker:</b> Mr. Vipin Krishna R</p> <p><b>Designation:</b> Head, EEE Department Thejus Engineering College</p>	<p><b>Topic:</b> Hands-on PLC Programming for Industrial Automation</p> <p><b>Speaker:</b> Mr. Akash K M</p> <p><b>Designation:</b> Sr. Project Engineer</p>
Session 2 8.00PM - 10.00PM	<p><b>Topic:</b> Advanced Power Converters for Renewable Energy Systems</p> <p><b>Speaker:</b> Dr. Nafeesa K</p> <p><b>Designation:</b> Professor and Head, EEE Department MES Engineering College</p>	<p><b>Topic:</b> Smart Grid Technologies and Renewable Energy Integration</p> <p><b>Speaker:</b> Mr. Sundaramoorthy</p> <p><b>Designation:</b> Senior Engineer Banglore</p>	<p><b>Topic:</b> IoT Based Digital Twins for Renewable Energy Assets</p> <p><b>Speaker:</b> Mr. Sebin Sunny P</p> <p><b>Designation:</b> CEO, EIC &amp; IIoT Sensors CoE IITM-K, GoK</p>	<p><b>Topic:</b> Challenges of Low-Inertia Grids with Renewable Energy Integration</p> <p><b>Speaker:</b> Praveen K P</p> <p><b>Designation:</b> Head, EEE Department Sreepathy Engineering College</p>	<p><b>Topic:</b> AI and Predictive Techniques in Renewable Energy Systems</p> <p><b>Speaker:</b> Dr. Vasanthi V</p> <p><b>Designation:</b> Professor and Head, EEE Department NSS College of Engineering</p>	<p><b>Topic:</b> Hands-on Session: PLC Applications in Renewable Energy Systems</p> <p><b>Speaker:</b> Mr. Akash K M</p> <p><b>Designation:</b> Sr. Project Engineer</p>