

**Skill Enhancement Programme on** 

# Renewable Energy and **Smart Transportation**

**July 22 – 26, 2024** 

# **About the University:**

SRM University-AP is a new-age university with a strong emphasis on research and an interdisciplinary approach. We foster a dynamic and vibrant research environment supported by a diverse community of both faculty and students. As a leading tertiary education institution, SRM AP has been challenging the conventional learning ecosystem since its inception to create a novel avenue where passion for wisdom meets purpose and excellence.

### **About the Programme:**

The Skill Enhancement Programme is a 5-day programme conducted in offline mode with live lectures, hands-on and interactive sessions. The proposed programme aims to address the growing importance of electric vehicles and renewable energy systems in the automotive industry and the need for faculty members to acquire knowledge and skills in this rapidly evolving field. The technical sessions will include presentations from experts in academia and industry on the latest advancements in the themes mentioned. The panel discussions will provide an opportunity for the participants to interact with the experts and discuss the challenges and opportunities in the emerging fields. Through a series of seminars and hands-on training sessions, participants will gain insights into various aspects of electric vehicles, including design, technology, infrastructure, and sustainable mobility solutions.

# **Target Audience:**

Faculty, Ph.D Scholars, M.Tech students of EEE department and allied branches from other Universities and Technical Institutions.

# **Objectives:**

- Providing faculty, PhD scholars, and PG students with a comprehensive understanding and proficiency in electric vehicle technology and related fields.
- Investigating the latest developments, innovations, and trends in the field of electric
- · Providing participants with effective tools and practical skills to integrate electric vehicle topics into their research activities and teaching curriculum.
- Fostering interdisciplinary collaboration and networking among faculty members, industry experts, and research academics in the field of renewable energy systems and electric vehicles.

# **Key Focus Areas/ Themes:**

- Advanced Power Conversion and Efficient Drives
- **Design and Simulation Tools**
- Battery Management and Charging Infrastructure
- Sustainability and Renewable Integration
- Microgrid and Control Optimization

### **Resources Available:**

- MATLAB/Simulink
- Real-Time Simulation Solutions OPAL RT
- dSPACE-1104

### **Duration:**

The Skill Enhancement Programme will be conducted over five days, with five hours of sessions each day.

#### **Outcome:**

- Enhanced Knowledge and Skills: Participants will gain an in-depth understanding of the latest advancements in renewable energy technologies and smart transportation systems, equipping them with cutting-edge knowledge in these fields.
- **Professional Networking:** The programme will provide a platform for participants to network with experts facilitating the exchange of ideas and opportunities for future collaboration.
- **Practical Experience:** Hands-on sessions and workshops will provide participants with practical experience in implementing and troubleshooting renewable energy systems and smart transportation technologies.
- **Curriculum Development:** Insights gained from the programme will assist participants in updating and enhancing the curriculum of their respective institutions, ensuring it aligns with current industry standards and technological advancements.
- **Ph.D. Scholars:** Attracting high-potential Ph.D. scholars seeking career development support.











### **Resource Persons:**

Experts are from faculty members from IIT, NIT, SRM University AP and industry.



**Dr K Sivakumar**IIT Hyderabad, India



**Mr Sai Teja Cherla**OPAL-RT



**Dr Narasimharaju B L**NIT Warangal, India



**Dr Kiran Kumar N**SRM University-*AP* 



**Mr Suraj**DECIBELS Pvt. Ltd.



**Dr Pratikanta Mishra** SRM University-*AP* 



**Dr G Naga Yatendra Babu**Solidpro Engineering Support Pvt. Ltd.



**Dr V Naresh Kumar** SRM University-*AP* 

# **Registration Fees:**

The registration fee for all the participants is **Rs 2000/- Note:** 

- 1. Food charges will be borne by the participants
- 2. Accommodation charges will be borne by the participants based on availability.

# **Registration Details:**

Registration Link: https://rb.gy/thb9q2

OI

Scan the registration QR Code:



**Note:** Fee payment details will be communicated to the interested candidates.

# **Programme Coordinators:**

#### **Convener:**

Dr Tousif Khan N
 HOD, Dept of EEE, SRM University-AP

#### **Coordinators:**

- Dr Kiran Kumar N
   Assistant Professor, Dept of EEE, SRM University-AP
- Dr Naresh Kumar V
   Assistant Professor, Dept of EEE, SRM University-AP

# **Programme Schedule**

	Day-1, July 22, 2024 (Monday)
09:00 – 09:30 AM	Registration
09:30 – 10:00 AM	Inauguration
10:00 – 12:30 PM	Keynote Talk Advanced Power Converters and Control Techniques Used in Electric Vehicles Dr. K. Sivakumar, Professor and Head - Dept of Electrical Engineering, IIT Hyderabad
12:30 - 02:00 PM	Lunch Break
02:00 - 04:30 PM	Keynote Talk  Design and Development of Power Converters and PWM Techniques in MATLAB/Simulink  Dr. N. Kiran Kumar, SRM University-AP
	Day-2, July 23,2024 (Tuesday)
10:00 – 12:30 PM	<b>Keynote Talk</b> Optimizing Microgrid Operations Through Real-Time based Simulations <i>Mr. Sai Teja Cherla, OPAL-RT</i>
12:30 - 02:00 PM	Lunch Break
02:00 - 04:30 PM	<b>Keynote Talk:</b> HIL validation of EV Power train <i>Mr. Sai Teja Cherla, OPAL-RT</i>
	Day-3, July 24, 2024 (Wednesday)
10:00 – 12:30 PM	<b>Keynote Talk:</b> SoC Estimations Techniques and Charging Infrastructure for EVs <i>Mr. Suraj, DECIBELS Pvt. Ltd.</i>
12:30 - 02:00 PM	Lunch Break
02:00 - 04:30 PM	<b>Keynote Talk:</b> Digital Twining of Lithium Ion Cells  Mr. Suraj, DECIBELS Pvt. Ltd.
	Day-4, July 25, 2024 (Thursday)
10:00 – 12:30 PM	<b>Keynote Talk:</b> Renewable Sources Control and Grid Integration Dr. G. Naga Yatendra Babu, Solidpro Engineering Support Pvt. Ltd.
12:30 - 02:00 PM	Lunch Break
02:00 - 04:30 PM	<b>Keynote Talk:</b> Design and Modelling of Inverter-Dominated Microgrids  Dr. Naresh Kumar Vemula, SRM University-AP
	Day-5, July 26, 2024 (Friday)
10:00 – 12:30 PM	<b>Keynote Talk:</b> Wide Range Bidirectional Power Conversion System for Energy Storage Interface in EV Dr. Narasimha Raju B.L, Professor and Head - Dept of Electrical Engineering, NIT Warangal
12:30 - 02:00 PM	Lunch Break
02:00 - 04:30 PM	<b>Keynote Talk:</b> High efficiency drives for Electric Vehicles: Current Applications and Future Scope  Dr. Pratikanta Mishra, SRM University-AP



