

# 8th Students' Conference on Engineering & Systems (SCES-2024)

organized by the Department of Electrical Engineering, Motilal Nehru National Institute of Technology Allahabad, Prayagraj from June 21 - 23, 2024.

## A Special Session on

### Smart Technologies for Sustainable Energy, Environment and Transportation System

#### Organized and Session chaired by:

**Dr. Shailendra Singh**, Department of Electrical Engineering, National Institute of Technology Agartala, Tripura, email: shailendra.ee@nita.ac.in

**Dr. Sadhan Gope**, Department of Electrical Engineering, National Institute of Technology Agartala, Tripura, email: sadhan.nit@gmail.com

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#### Call for Papers:

Smart technologies play a vital role in creating sustainable energy and transportation systems by optimizing resource usage, reducing emissions, enhancing efficiency, and promoting the integration of renewable energy sources. Some of the smart technologies are as follows Smart Grids, Renewable Energy Integration, Electric Vehicles (EVs) and Charging Infrastructure, Intelligent Transportation Systems (ITS), Connected and Autonomous Vehicles (CAVs), Information and communication technology, Smart Sensors and IoT Devices, Predictive Analytics and AI, Smart Materials. By leveraging these smart technologies, communities can build more resilient, efficient, and sustainable energy and transportation systems to address the challenges of climate change and urbanization.

**Topics of the Session** The topics of interest include, but are not limited to:

- Methods and tools for smart grid technology
- Electric Mobility: Electric Vehicle (EV) Technology, Hybrid EV Technology
- Smart Technology for Light Duty and Heavy-duty EV Technology
- Distributed Renewable and sustainable energy technology
- Smart materials for flexible power electronics.
- Smart Sensors development
- Smart computing for IoT devices
- Data-driven methods and algorithms for smart computing
- AI and Machine learning driven edge computing for smart devices
- Tools and techniques for Smart communication systems
- Green Communication for Next-Generation Wireless Systems
- Smart schemes for connected and Autonomous Vehicles (CAVs)
- Intelligent Transportation Systems (ITS)
- Smart Techniques for weather forecasting and climate change
- Smart City and Smart Village
- Digester management using smart Schemes

## Short Biography of Session Chair



**Dr. Shailendra Singh (S'15)** received a Ph.D. degree in power systems from the Indian Institute of Technology (Banaras Hindu University), Varanasi, India, and M.Tech Degree in Electrical Engineering with a specialization in power systems from the National Institute of Technology, Kurukshetra, India. He was a Visiting Research Scholar with the National Renewable Energy Laboratory (NREL), Golden, CO, USA, from April 2018 to October 2018.

He also worked as a Research Fellow at the School of Electrical and Electronics Engineering, Nanyang Technological University (NTU), Singapore. Currently Dr. Singh working as an Assistant Professor in Electrical Engineering Department, National Institute of Technology (NIT) Agartala. Dr. Singh was the recipient of prestigious Bhaskara Advance Solar Energy (BASE-2018) Fellowship supported by DST, Govt. of India and Indo-US Science and Technology Forum, New Delhi, India. He was awarded prestigious POSOCO Power System Award (PPSA-2020) under Doctoral Category for his research work organized by Power System Operation Cooperation (POSOCO) Ltd in association with Fundamental for Innovation Technology Transfer (FITT), IIT Delhi. His research interests include Smart Energy Distribution Systems, Micro-Grid Control, Electric Vehicles Grid Integration, and Distributed Energy Resources Management.



**Dr. Sadhan Gope (SM 2023)** is presently working as an Assistant Professor in the Department of Electrical Engineering, National Institute of Technology Agartala. Before joining National Institute of Technology Agartala, he was a faculty member of Mizoram University and National Institute of Technology Mizoram. He has completed his Ph.D. in Electrical Engineering from National Institute of Technology Silchar, India, Master of Technology in Power and Energy System Engineering from NIT, Silchar, India,

He has published more than 70 papers in International Journals, Book Chapters and Conference Proceedings. He has supervised 2 Ph.D. and 4 M.Tech scholars. He is a member of Indian Society of Technical Education (ISTE), The Institution of Engineers (India) (IEI), and International Association of Engineers (IAENG). Dr. Gope participated in many international conferences as Organizing Chair, Session Chair and member of the Technical Program Committee. His research interest areas are restructured electricity market, transmission congestion management, distributed and renewable energy generation, hybrid energy systems, application of soft computing techniques in power system.



**Dr. Padmagirisan P** received the M.Tech degree in Electrical Engineering from the National Institute of Technology Warangal, India, in 2010 and the Ph.D. degree in Electrical and Electronics engineering from the National Institute of Technology Tiruchirappalli, India, in 2019. He was a Research Fellow in Mechanical Engineering Science with the University of Surrey, Guildford, U.K., during 2019 to 2020. He is currently an Assistant Professor in Electrical Engineering at the National Institute of Technology Agartala, India. His research interests include energy management control systems for electric & hybrid electric vehicles and renewable energy systems.