



3rd International Symposium on Sustainable Energy And Technological Advancements

(23rd – 24th February 2024)

ISSETA 2024 Special Session on

Intelligent Microgrid Management: Controllers and Computing Innovations

Aims and scope of the session:

This special session is proposed with a basic theme of utilizing smart control devices and cutting-edge computing technologies to enhance the management and functioning of microgrids, leading to more efficient, reliable, and sustainable energy systems. This session will provide an effective forum to disseminate new technology and share the expertise among researchers, scientists, and engineers in the recent development of microgrid. This special session deals with different topologies of microgrids and will cover a wide range of topics related to microgrid.

Topics of interest:

- Control and Stability analysis of Renewable integrated Microgrid
- Power quality issues and solutions in microgrid
- Microgrid System Design and control
- Distributed Energy Resource Management
- Real-time Monitoring and Control
- Predictive Analytics and Machine Learning
- Cyber-Physical Security
- Demand Response Management
- Integration of IoT (Internet of Things) Devices
- Control of distributed Active Power Filter and STATCOMs in smart power network
- Design of Electric Vehicle Charging System for a Renewable sources integrated micro-grid
- Power management and control in a PV, EV, battery and super capacitor integrated Microgrid
- Cyber-security of microgrid
- Microgrid protection Power converter reliability in meshed and hybrid microgrid

Special session organizers:

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Pratap Sekhar Puhan (SM'22) received his BE in Electrical Engineering from Utkal University, Odisha in 2001. He received his ME in Power System from Bengal Engineering and Science University (IEST) Shibpur, West Bengal, India, in 2010 and completed his PhD in Electrical Engineering from Utkal University, Odisha, India in 2015. He is working as a Professor with the Department of Electrical and Electronics Engineering at Sreenidhi Institute of Science and Technology, Hyderabad, India. He has 20 years of experience in teaching and research. He has published more than 30 papers in reputed journal His main research interests include power quality, distributed generation, estimation of signal and systems etc



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Partha Kayal was born in West Bengal in the year of 1985 and completed his B.Tech in Electrical Engineering from West Bengal University of Technology in 2008. He was awarded with ME and PhD from IEST Shibpur in 2010 and 2016 respectively. Along with the research works, he continued to teach in Future Institute of Engineering and Management till early June, 2018. Then he joined NIT Silchar and serving there as an Assistant professor from late June, 2018. He has published more than 25 papers in reputed journals and conferences. His area of research includes Optimization of Distributed Energy Resources, Operation and Control of Microgrid, Enhanced Distribution System Planning and Modeling, Impacts of Energy Storage and Electric Vehicles on Distribution Network, Reliability and Power Quality Issues, Statistical Modeling and Forecasting of Energy, Demand Response and Electricity Market, Energy Management in Smart Grid, Power System Dynamics and Stability Phenomenon

