



# 6<sup>th</sup> IEEE International Conference on Sustainable Energy and Future Electric Transportation (IEEE SeFet 2026)

08<sup>th</sup> July – 11<sup>th</sup> July, 2026, Nagpur, Maharashtra, INDIA



## Call for papers: Special Session 13

### AI-Driven Optimization of Green Microgrids and E-Mobility for Real-Time Energy Management and Sustainability (AI-GMEMS)

**SS13:** The session will focus on real-time energy management, stability enhancement, predictive control, and sustainable operation of decentralized energy networks. The session aims to bring together researchers, engineers, and industry practitioners to discuss innovative algorithms, data-driven strategies, simulation studies, and practical implementations. Topics of interest include, but are not limited to:

- ❖ Real-time scheduling of renewable generation and loads
- ❖ Predictive forecasting of energy demand and renewable output
- ❖ Optimal coordination of distributed energy resources
- ❖ Smart EV charging/discharging strategies
- ❖ Vehicle-to-Grid and Grid-to-Vehicle optimization
- ❖ Impact of e-mobility on microgrid stability and energy flow
- ❖ Reinforcement learning and deep learning for control
- ❖ Multi-objective optimization for energy, cost, and emissions
- ❖ Adaptive and decentralized control strategies
- ❖ AI-enabled stability assessment and contingency management
- ❖ Resilient microgrid operation under uncertainties
- ❖ Energy efficiency and carbon footprint reduction
- ❖ Role of AI/ML in achieving sustainable energy targets
- ❖ Case studies and implementations of AI-driven solutions

#### Special Session Organizers:



Dr. Amar Kumar Barik,  
(amar.kumar.barik@nirmauni.ac.in)  
EED, Institute of Technology, Nirma University, Ahmedabad, Gujarat



Dr. Soumesh Chatterjee,  
(soumesh.chatterjee@nirmauni.ac.in)  
EED, Institute of Technology, Nirma University, Ahmedabad, Gujarat



Prof. Chintan D. Patel,  
(chintan.patel@nirmauni.ac.in)  
EED, Institute of Technology, Nirma University, Ahmedabad, Gujarat

**Organized by:**  
Department of Electrical Engineering,  
Visvesvaraya National Institute of  
Technology, Nagpur

**Submission link:**

<https://cmt3.research.microsoft.com/SEFET2026/Submission/Index>

**For more details please visit:**

<https://vnit.ac.in/sefet26/>

**Paper Submission Closes:** 31<sup>st</sup> Jan 2026  
**Notification of Acceptance:** 15<sup>th</sup> March 2026  
**Final Camera-ready paper:** 5<sup>th</sup> June 2026  
**Conference Date:** July 8<sup>th</sup> -11<sup>th</sup> 2026  
All presented papers will be considered for further review in IEEE Transactions on Industry Applications and IEEE Industry Applications Magazine.