6th IEEE International Conference on Sustainable Energy and Future Electric Transportation (IEEE SeFet 2026)

08th July – 11th July, 2026, Nagpur, Maharashtra, INDIA

Call for Research Papers in 6th IEEE SeFet 2026 Special Session/Track Proposal

SS 20: Generative Artificial Intelligence and Intelligent Computing Techniques for Smart Energy Systems

All the accepted and presented papers will be published in the form of e-proceedings and submitted to IEEE Xplore Digital Library (indexed in SCOPUS, Google Scholar, and other major indexing).
All presented papers will be considered for further review and publication in IEEE Transactions on Industry Applications and IEEE Industry Applications Magazine.

Dear Students, Faculties, Researchers, and Industry Experts,

We are pleased to invite you to submit your research papers to our Special Session "**SS 20:** Generative Artificial Intelligence and Intelligent Computing Techniques for Smart Energy Systems" as part of the 6th IEEE International Conference on Sustainable Energy and Future Electric Transportation (SeFeT 2026) , scheduled to be held at Visvesvaraya National Institute of Technology (VNIT), Nagpur, India, from **July 8th–11th, 2026**.
This special session aims to bring together researchers, academicians, and industry professionals to explore the latest developments and applications of **Computational Intelligence (CI)** and **Generative AI (GenAI)** in addressing critical challenges within modern energy systems. Emphasis will be placed on **mathematical modeling**, **algorithmic innovation**, and **real-world implementations** that leverage these advanced techniques to enhance energy **generation**, **distribution**, **storage**, and **utilization**.

Technical Outline of the Session and Topics:

The session will encompass, but not be limited to, the following key themes:

- AI-based forecasting and scheduling of solar and wind energy.
- Predictive modeling and intelligent control for battery management systems.
- Utilization of generative models to enhance energy storage design and performance.
- Application of CI techniques in real-time demand-response and grid management.
- AI-driven anomaly detection, fault prediction, and cybersecurity for smart grids.
- Generation of high-quality synthetic data for energy system modeling and training.
- Leveraging large language models for intelligent energy planning and system management.
- Computational approaches for minimizing carbon footprint and environmental impact.
- AI-supported policy modeling and decision-making for sustainable energy transitions.
- AI-enabled microgrids, virtual power plants, and decentralized energy architectures.
- Autonomous and blockchain-integrated energy trading supported by CI techniques.

Organizers

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Important Dates

- **Paper Submission Opens:** 01 October 2025
- **Full Paper Submission Deadline:** 31 January 2026
- **Notification of Acceptance:** 15 March 2026

For Submission of Papers: ▪ Login on to the following link:
https://cmt3.research.microsoft.com/User/Login?ReturnUrl=%2FSEFET2026%2FSubmission%2FIndex
▪ **Select Special Session as** "SS 20: Generative Artificial Intelligence and Intelligent Computing Techniques for Smart Energy Systems"
Conference website link:- https://vnit.ac.in/sefet26/index.html