

CALL FOR PAPERS

International Conference on AI-Powered Energy Optimization AIEO 2027

Applying AI for Sustainable, Efficient, and Resilient Energy Systems

23-24 June 2027 | Aix-Marseille Université, Marseille, France | Hybrid

SCOPE

AIEO 2027 brings together researchers, PhD students, industry and infrastructure operators to discuss how artificial intelligence can make energy systems more sustainable, efficient and resilient. The conference sits at the interface of control, electrical engineering and machine learning, with a dedicated track on sustainable data centres. Original contributions of up to eight pages are invited on the following tracks.

1. AI, learning and forecasting

Machine and deep learning for energy, load, demand, price and renewable generation forecasting, explainable and trustworthy AI, digital twins, big data analytics, edge and distributed AI.

2. Intelligent control and energy optimization

Optimal, predictive, adaptive and robust control, energy management systems, demand response, multi-agent and distributed control, stochastic and real-time optimization, scheduling.

3. Smart grids, renewable energy and power systems

Microgrids, solar and wind integration, battery storage, hydrogen, electric vehicles and charging infrastructure, grid operation and planning, DC links, stability and resilience.

4. Power electronics, reliability and diagnosis

Power converters and smart inverters, electrical machines and drives, condition monitoring, fault detection and diagnosis, predictive maintenance, reliability and asset management.

5. Sustainable data centres and digital infrastructure

AI-driven energy optimization of data centres, smart cooling, workload scheduling, PUE optimization, carbon footprint reduction, renewable integration, edge and cloud infrastructure.

IMPORTANT DATES

15 February 2027

Paper submission deadline

30 April 2027

Notification of acceptance

20 May 2027

Revised papers

31 May 2027

Camera-ready papers

21-22 June 2027

Workshop

23-24 June 2027

Conference

SUBMIT

[Click here to submit your paper](#)

HIGHLIGHTS

Two keynotes from Denmark and the United States

Tutorial, workshop and industry panel

PhD student session and best paper awards

Scientific committee of 80+ researchers from 30 countries

SUBMISSION AND PUBLICATION

Papers must be written in English with the Springer proceedings template (Word or LaTeX, on the conference website), up to eight pages including illustrations and references. Up to two extra pages are permitted at 40 € each.

[Click here to submit your paper](#)

All submissions are peer reviewed double-blind by at least two independent reviewers. Accepted and presented papers will be published by Springer in the book series **Lecture Notes in Networks and Systems** (indexed by all major indexing databases). At least one author of each accepted paper must register and present the paper, on site or online.

Journal: Selected high-quality papers accepted and presented at the conference will be recommended for publication in *Global Energy Interconnection* as expanded versions, subject to the journal's peer-review process.

Proposals for special sessions and tutorials are welcome: see www.aieo2027.com.

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IEEE CSS Representative	Abdel Aitouche (France)

VENUE

Aix-Marseille Université, Saint-Jérôme campus, 52 avenue Escadrille Normandie-Niemen, 13397 Marseille, France. Hosted by LIS, Laboratoire d'Informatique et Systèmes, UMR CNRS 7020. Hybrid format, on site and online.

PROCEEDINGS



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