Aims and scope

Energy and AI provides a fast and authoritative open access platform to disseminate the latest research progress in the cross-disciplinary area of energy and artificial intelligence (AI). The journal focuses on innovative applications of AI that address the critical challenges in energy systems, energy materials, energy chemistry, energy utilization & conversion, and energy & society, as well as other important pressing issues in energy research. The journal also considers papers on the development of bespoke AI technologies and methodologies for advancing energy, decarbonization and sustainable development, such as data-driven approaches, optimization algorithms and AI ethics.

Energy and AI aims to become a leading journal for cutting-edge research at the interface between energy and AI. Papers purely focusing on a single aspect of energy or AI are not suitable for the journal.

The journal considers full length, short communications, perspective and review articles, and publishes 4 volumes per year.

Focal points of the journal include, but are not limited to:

- Automation of science discovery related to energy materials and chemistry
- Digital twining or big data analytics of complex energy processes/systems
- Data-driven design of energy materials, devices and systems
- Internet-of-things and cyber-physical energy systems
- AI for human factors in energy related activities
- Virtual reality applied to energy and environment
- Autonomous systems for energy efficiency maximalization
- Hardware for data collections in energy systems
- Data Science for energy applications
- Hybrid data-driven and physical modelling for energy related problems
- Intelligent control of energy systems
- AI, energy and society

- AI safety, reliability and ethics within energy applications
- AI for life-cycle assessment or energy and decarbonization roadmaps
- Energy robotics

This journal welcomes contributions that support and advance the UN's sustainable development goals, in particular SDG 7 (Affordable and clean energy)