



Call for Papers

CMP Chinese Journal of Electrical Engineering

Special Issue on Advanced Sensor and AI Technology Accelerating the Development of Battery Management

Scheduled Publication Time: December 2025

Battery energy storage is a key technology for the energy revolution and an important support for the development of new power systems and new energy vehicles, and an important component for achieving the carbon peaking and carbon neutrality goals. It has developed rapidly in recent years. However, it is difficult that accurately sensing the changes of battery aging and safety in existing commercial battery systems. To improve battery safety, durability and energy density, advanced sensor and AI technologies are employed. On one hand, high fidelity obtaining multi-dimensional characteristic parameters such as electrochemistry, heat, force, and gas of battery cell can reflect the true state of the battery synthetically. On the other hand, AI technologies provide more opportunities to overcome the challenges in the whole process application of batteries. Therefore, developing advanced battery management technologies with intelligent sensing as well as next-generation battery management based on AI is an important way to promoting battery energy storage system (BESS) and electric vehicles (EVs).

This special issue intends to collect and report the latest developments of Advanced Sensor and AI Technology in Battery Management. Topics of interest include, but are not limited to:

- Modeling, simulation and optimization of BESS and EVs
- Battery multi-dimensional parameters sensing
- Battery aging and safety parameter monitoring
- Implanted and external sensors collaboratively deploying
- Battery aging and safety parameter monitoring
- Battery safety warning
- Battery life extension management
- Application of AI in battery management
- Sustainable energy technology based on AI
- Advanced battery management technology

All manuscripts must be submitted through Manuscript Central at <https://mc03.manuscriptcentral.com/cjee>. Submissions must be clearly marked “**For Special Issue on Advanced Sensor and AI Technology Accelerating the Development of Battery Management**” on the cover page. When uploading your paper, please select your manuscript type “Special Issue.” The information about manuscript preparation and requirements is provided on https://ieeexplore.ieee.org/Xplorehelp/downloads/journal-assets/CJEE/CJEE_Word_Template.doc. Manuscripts submitted for the special issue will be reviewed separately and will be handled by the guest editorial board noted below.

Deadline for Submission of Manuscript: June 30, 2025

Guest Editors:

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Proposed Timeline:

- June 30, 2025 – Manuscripts Submission Deadline
- August 31, 2025 – Final Acceptance Notification
- October 15, 2025 – Manuscripts Forwarded to CJEE for Publication
- December 31, 2025– Special Issue Appears in CJEE