Call for Papers

Chinese Journal of Electrical Engineering

Special Issue on Emerging Technology and Advanced Application of Nondestructive Detection for Power Equipment

Scheduled Publication Time: March 2024

The rapid development of clean and renewable energy technologies represented by wind and solar energy, as well as the continuous growth of load demand, have put forward higher requirements for the safe operation of the power equipment. The performance of power equipment based on traditional dielectric materials is often limited by various defects generated during molding, transportation, assembly, and operation, which cannot meet the reliability requirements of power systems in the new situation. Nondestructive detection is an essential technical means in industrial development, which can detect and evaluate the defect and damage status of in-service equipment, key components, and materials without damaging the tested object. It can provide necessary testing methods and guidance for the factory quality inspection, safe operation, and maintenance of key equipment. Therefore, developing advanced non-destructive detection technology to achieve defect identification throughout the entire lifecycle of new power equipment will not only bring qualitative changes to the entire energy and power equipment, but also have revolutionary impacts on multiple fields such as deep-sea exploration, aerospace, national defense and military industry.

This special issue seeks to inspire ideas related to emerging nondestructive detection techniques and their application to power equipment, with a broad spectrum of research topics including high performance sensing technology, efficient data analysis and evaluation methods. Both reviews and technical articles are welcome to this special issue. Topics of interest include, but are not limited to:

- Sensor components and equipment
- New principles of non-destructive testing
- Basic theory and simulation modeling of non-destructive testing
- Automatic detection principle and device
- Signal processing
- Defect grading and 3D imaging
- Artificial intelligence applications
- Defect analysis and diagnosis
- The mechanism and modeling of defect induced faults
- Evaluation methods
- On site application technology

All manuscripts must be submitted through Manuscript Central at https://mc03.manuscriptcentral.com/cjee. When uploading your paper, please select your manuscript type "**Special Issue on Emerging Technology and Advanced Application of Nondestructive Detection for Power Equipment**". The information about manuscript preparation and requirements is provided on http://www.cjeecmp.com/EN/column/column334.shtml. 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: November 30, 2023

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Proposed Timeline:

- November 30, 2023 – Manuscripts Submission Deadline
- December 31, 2023 – Final Acceptance Notification
- February 28, 2024 – Manuscripts Forwarded to CJEE for Publication
- March 31, 2024 – Special Issue Appears in CJEE