

## Special Issue

# Advances in Condition Monitoring, Diagnosis, and Prognostics for Power Equipment

### Message from the Guest Editors

Condition monitoring, fault diagnosis, and prognostics have emerged as critical research areas in modern power systems. As global energy demands grow, the reliability, efficiency, and safety of power equipment become paramount. Failures in key components such as transformers, circuit breakers, generators, and renewable energy resources can lead to significant downtime, costly repairs, and disruptions in energy supply. Advances in sensor technology, artificial intelligence (AI), the Internet of Things (IoT), and data analytics have revolutionized the ability to monitor the health of equipment, predict potential failures, enable real-time decision making, and implement predictive maintenance strategies in addition to conventional periodic maintenance. These innovations are pivotal for transitioning to smarter, more resilient power systems, especially in the context of renewable energy integration and grid modernization.

- power equipment diagnostics
- condition monitoring
- asset management
- state estimation
- fault prognostics
- predictive maintenance
- electrical equipment reliability

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### Guest Editors

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### Deadline for manuscript submissions

15 September 2026



## Electronics

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### Editor-in-Chief

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