

## Special Session 15

### Flexible Interaction and Intelligent Management of Future Power Networks

#### Introduction and Topics

Future power networks are undergoing a profound transformation with the increasing penetration of renewable generation, electrified transportation, distributed storage, mobile energy resources, and digitalized control technologies. In this evolving landscape, flexible interaction among power converters, energy resources, network infrastructures, and end users is becoming a key enabler for improving efficiency, resilience, sustainability, and operational adaptability. At the same time, the growing coupling between physical networks, market mechanisms, and user behavior requires more intelligent management frameworks capable of coordinating heterogeneous resources across multiple temporal and spatial scales. Recent studies have shown that emerging resources such as electric vehicles, mobile energy storage systems, and data centers can provide representative examples of this transition, while advanced optimization, hierarchical coordination, incentive design, and data-driven control are opening new possibilities for reliable and efficient network operation. This special session aims to provide a broad forum for original contributions on the theories, technologies, and applications that support the flexible interaction and intelligent management of future power networks. Contributions are welcome from both power electronics and power systems communities, including but not limited to converter technologies, grid-interactive devices, coordinated control, energy management, intelligent optimization, resilient operation, and interdisciplinary solutions for emerging energy applications.

#### // Special Session Chairs //



**Dr. Ning Wang**  
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#### // Paper Submission //

#### Submission Method



- \* View paper submission instruction on website <https://www.ieee-icps.com/sub.html>
- \* Submit your paper through the website or QR code <https://easychair.org/conferences/?conf=ieeeticpsasia2026>

#### Important Dates

Submission Deadline	April 30, 2026
Notification Deadline	May 31, 2026
Early-bird Registration Deadline	June 15, 2026
Author Registration Due	June 15, 2026

#### Publication

Submissions to IEEE I&CPS 2026 will be peer reviewed on the basis of technical quality, relevance to conference topics, originality, significance, clarity, etc. Accepted papers will be submitted for inclusion into IEEE Xplore subject to meeting IEEE Xplore's scope and quality requirements. Excellent papers will be recommended for review by IEEE **Trans on Industry Applications** (proportion can reach up to 50%), **Global Energy Interconnection** and **DeCarbon**.