

# CALL FOR PAPERS



## Special Session on Electric Vehicle Charging Systems: Architectures, Communication, and Management

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The large charging power demands from the EVs would significantly impact the operation of the future grids. With uncertainties in the number and conditions of EVs, and users' preferences, the proper architectures of the charging facilities, management strategies and communication are crucial. The interactions between natural resources (e.g., solar energy and wind energy) capture and storage further complicate the charging management problem. Comprehensive efforts are required to provide flexibility, scalability, and eventually autonomy of the EV charging systems in dynamic environments.

### Topics of the Session

- Architectures/topologies and designs of EV charging systems;
- Devices, interfaces, and technologies for EV charging (e.g., wired and wireless);
- Design and control of microgrids and smart grids involving EV charging;
- Interaction and communication among charging facilities, EVs, and the grid;
- State measurement, estimation, and monitoring;
- Component-level and system-level modelling and analysis;
- System-level management and control;
- Intelligent distributed autonomous management;
- Security, reliability and scalability of EV charging systems.

### IEEE IES Technical Committee Sponsoring the Special Session:

- Energy Storage Technical Committee
- Resilience and Security for Industrial Applications (ReSia) Technical Committee

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### Author's schedule:

- Deadline for submission of special session papers  
May 1, 2018
- Notification of acceptance  
July 15, 2018
- Deadline for submission of final manuscripts  
August 1, 2018