

Special Issue

Innovations and Recent Trends in Power Systems: Smart Grids, Energy Storage Systems and Electric Vehicle Integrations

Message from the Guest Editors

A non-exhaustive list of topics to be covered in this Special Issue are as follows: EVs grid impact analysis EV smart-charging management for peak reduction into the grid. New power and energy management strategies for V2G and ESSs in smart grids. Second life battery-based approach for ESSs integration into the grid. Integration of RESs in modern power systems. New approaches to provide ancillary services based on ESSs. Innovative control strategies for ESSs in smart grids. Techno-economic analysis of ESSs in power systems for RESs and EVs integration. Lithium-Ion batteries, fuel cells, and supercapacitors applications in modern power systems. Impact of fast and ultra-fast chargers for EVs on power systems. Optimal positioning and sizing of ESSs in smart grids. Impact on grid of wireless charging systems for EVs. Resilience assessment of smart grids in presence of ESSs, RESs and EVs Load shedding approaches in microgrids considering RESs uncertainty. Power quality issues related to EVs charging and ESSs in smart grids. Power2gas paradigm: integration of transportation network and power system.

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