

**Special Session 4**  
**Planning and Operation of Smart Distribution Network with High Penetration of**  
**Distributed Energy Resources and Electric Vehicles**

**Session Chair:**

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**Scope of the Session:**

This special session is dedicated to share new technologies in the optimal planning and operation of smart distribution network with high penetration of distributed energy resources (DERs) and electric vehicles (EVs). It aims to present the latest research achievements which have significant impacts on the advancement of knowledge in the fields and provide an international platform for authors to maximize the influence of their contributions. Topics of presentations and research papers include but are not limited to:

- System planning/operation with DER penetration
- Generation and demand forecasting and prediction
- Demand side management
- Grid integration of distributed energy resources
- Safe disconnection and islanded systems
- Grid connected energy storage systems and their control
- Electric vehicle charging technologies and its impact in grid operation