



IEI² 2023 Special Session 11

Intelligent Interactions Between Electric Vehicles and Power Grid

Introduction and topics

Amid the global imperative to curtail carbon emissions and address climate change, electric vehicles (EVs) have emerged as a pivotal component of eco-conscious sustainability. Moreover, the confluence of EVs and the power grid has yielded a profound paradigm shift in energy consumption, distribution, and ecological sustainability. Nonetheless, the seamless integration of EVs into the power grid faces some intricacies and challenges, such as the load fluctuation caused by the extra energy consumption. The session titled "Intelligent Interactions between Electric Vehicles and the Power Grid" is currently dedicated to unraveling the complex interplay of charging preferences and market participation behaviors exhibited by EV users in EV-grid interactions. This session is poised to bring together experts, policymakers, and industry leaders for a comprehensive discourse on the challenges and prospects of dynamic interrelation in EV-grid integration.

Topics of interests(including but not limited to):

- \\ Innovative market mechanisms of EV-Grid integration
- \\ Prediction and analysis of user behavior in the electricity market
- \\ Accurate analysis and prediction of power flow
- \\ Unified framework for profitable participation in the electricity market
- \\ Renewable energy sources and application in EV-Grid interaction
- \\ Data-driven methods for EV-Grid interaction
- \\ Application of AI technology in power market integration

Special Session Chairs

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Publication



Website

The conference papers will be published by the IEEEExplore website and indexed by EI, and high-quality papers will be recommended to Energy Conversion and Economics, Energy Internet, Journal of Modern Power Systems and Clean Energy (MPCE), CSEE Journal of Power and Energy Systems (CSEE JPES), Applied Energy, and others.

Submission Link: <https://easychair.org/conferences/?conf=ei22023>

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