



IET Smart Grid Call for Papers

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SPECIAL ISSUE ON:

Achieving an Integrated Smart Power Grid and Intelligent Transportation System

Editor-in-Chiefs: Prof Vince Poor, Princeton University, USA and Dr Hongjian Sun, Durham University, UK

The electric vehicle (EV) industry has rapidly grown throughout the last decade. The transition from refuelling vehicles at petrol stations to using public EV charging stations or private EV charging devices will continue to have a large impact on transportation infrastructure and systems. In recent years, many studies have been conducted on charging infrastructure planning, smart charging and vehicle-to-grid (V2G) technologies throughout electrical engineering and other engineering communities. However, there is still insufficient interdisciplinary solutions to efficiently integrate the power grid with transportation systems. To sustain the current rapid growth of the EV market, further innovative research using data and advanced information technologies, e.g. data mining, machine learning, and next-generation communication technologies, is required to achieve integration of the smart power grid and intelligent transportation systems.

In this special issue, we invite the latest research on the modelling, planning, operation and market mechanisms for integrating the smart power grid and intelligent transportation systems. All submissions are expected to consider EVs or EV infrastructure.

Topics of interest, but are not limited to:

- Framework, roadmap or mechanisms for integrating the smart power grid and intelligent transportation systems
- Modelling EV driving and charging behaviors
- Optimal planning of EV charging infrastructure
- Power grid and power generation planning for EV integration
- EV aggregation to accommodate renewable power generation
- Re-use of EV batteries as energy storage resources
- Energy and ancillary markets for EVs
- EV charging guidance considering power grid and/or transportation system conditions
- Data mining and machine learning algorithms for smart charging/discharging of EVs
- Emerging charging technologies, e.g. wireless/super-fast charging and their implementation
- Autonomous EVs and future power grid

All papers must be submitted through the journal's ReView system:
<https://www.iet-review.rivervalleytechnologies.com/journal/stg>

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Guest Editors:

Zechun Hu, Tsinghua University, PR China
E: zechhu@tsinghua.edu.cn

Chenghong Gu, University of Bath, UK
E: C.Gu@bath.ac.uk

Kai Strunz, Technische Universität Berlin, Germany
E: kai.strunz@tu-berlin.de

Lingfeng Wang, University of Wisconsin–Milwaukee, USA
E: wang289@uwm.edu

Fang He, Tsinghua University, PR China
E: fanghe@tsinghua.edu.cn

Hongcai Zhang, University of Macau, PR China
E: hc Zhang@um.edu.mo

Tomislav Capuder, University of Zagreb, Croatia
E: tomislav.capuder@fer.hr