Special Issue

Planning, Scheduling and Control of Grids with Renewables

Message from the Guest Editors

With the rapid development and increasing integration of renewable and clean energy technologies, electricity grids have been undergoing low-carbon transformation and facing the challenges of efficient and reliable operation. Great efforts are being made to optimise renewable-based electricity grids from the perspectives of planning methods, scheduling algorithms, and control strategies in order to cope with the fluctuations, intermittency, and randomness of renewable generation, including wind and solar energy. This manifests in the need for new design, operation, and control strategies for grids with the strong integration of renewables and green hydrogen. Topics of interest for this Special Issue include, but are not limited to, the following:

- Grid control with high penetration of renewables;
- Grid control for green hydrogen production;
- Active network management;
- Multiple time scale grid scheduling;
- Coordination of complementary resources;
- Energy storage system planning;
- Hydrogen energy system planning;
- Converter design and control;
- Electricity markets and ancillary service markets.

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

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