Special Issue

Intelligent Control of Power Grid and Renewable Energy System

Message from the Guest Editors

The increasing development of renewable energies, together with the growing fleet of electric vehicles worldwide, confronts electricity grids with an extraordinary challenge: the management of numerous supply points in which consumers can also act as energy generators (prosumers). In this strongly decentralised context, intelligent control techniques, such as neural networks, machine learning, etc., can offer efficient solutions to maintain the quality of electricity supply. Potential topics include, but are not limited to, the following:

- Smart grids;
- Communication technologies for energy resource management;
- Intelligent control techniques applied to management of power grids;
- Provision of ancillary services (reactive, phase current balancing, peak shaving, frequency control, etc.) to the grid;
- Integration of energy storage systems in power grids;
- Intelligent management of renewable energy resources, such as photovoltaic, wind, etc.;
- Intelligent control techniques applied to power electronic converters.

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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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