



Intelligent Control of Power Grid and Renewable Energy System

Guest Editors:

Prof. Dr. Emilio Figueres

Electronic Engineering
department, Universitat
Politecnica de Valencia, Camí de
Vera, 46022 València, Spain

Dr. Ivan Patrao

Grupo de Sistemas Electrónicos
Industriales del Departamento
de Ingeniería Electrónica,
Universidad Politécnica de
Valencia, Camino de Vera s/n,
46022 Valencia, Spain

Message from the Guest Editors

Dear Colleagues,

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.

Deadline for manuscript
submissions:

15 November 2024





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and
Telecommunications,
Politecnico di Torino, 10129
Torino, Italy

Message from the Editor-in-Chief

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.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [CAPus / SciFinder](#), [Inspec](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Electrical and Electronic Engineering*) CiteScore - Q2 (*Electrical and Electronic Engineering*)

Contact Us

Electronics Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/electronics
electronics@mdpi.com
[X@electronicsMDPI](https://twitter.com/electronicsMDPI)