



Model Predictive Control System Design and Implementation

Guest Editors:

Prof. Dr. José María Maestre

Systems and Automation
Engineering Department,
University of Seville, 41004
Sevilla, Spain

Prof. Dr. Carlos Bordons

Laboratory of Engineering for
Energy and Environmental
Sustainability, University of
Seville, 41004 Sevilla, Spain

Dr. Juan Manuel Escaño

Systems and Automation
Engineering Department,
University of Seville, 41004
Sevilla, Spain

Deadline for manuscript
submissions:

closed (31 December 2021)

Message from the Guest Editors

Dear Colleagues,

MPC has arguably become one of the most successful control methods due to its capacity to integrate issues such as multiple inputs and outputs, optimization goals, constraints, and dead times. This Special Issue aims at compiling advances regarding predictive controllers in systems where energy plays a central role. From power converters to solar plants, there is a myriad of applications where MPC and energy are entwined, perhaps being part of a larger system. For this reason, this Special Issue aims at bringing together contributions regarding topics such as:

- Centralized, hierarchical and distributed MPC methods in energy systems.
- Fast and flexible MPC methods in energy systems (e.g., numerical methods, clustering, plug and play).
- Cybersecurity and resilience in the design of MPC controllers for collaborative energy management.
- Learning and data-driven strategies for MPC controllers in energy systems.
- MPC-based methods to flatten the demand in energy systems.





energies



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: CiteScore - Q1 (Control and Optimization)

Contact Us

Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/energies
energies@mdpi.com
[X@energies_mdpi](https://twitter.com/energies_mdpi)