



## Model Predictive Control: Future Trends and Advances in Motors

Guest Editors:

**Dr. Imed Jlassi**

CISE - Electromechatronic  
Systems Research Centre,  
University of Beira Interior,  
Calçada Fonte do Lameiro, P -  
6201-001 Covilhã, Portugal

**Prof. Dr. Antonio J. Marques  
Cardoso**

CISE—Electromechatronic  
Systems Research Centre,  
University of Beira Interior,  
Calçada Fonte do Lameiro, P -  
6201-001 Covilhã, Portugal

Deadline for manuscript  
submissions:

**15 May 2024**

### Message from the Guest Editors

Dear Colleagues,

The model predictive control (MPC) of electrical drives has gained impressive attention. It has distinguished itself from classical vector and direct control techniques due to its ability to deal straightforwardly and intuitively with multi-objective control and integrate nonlinearities and constraints into a predefined cost function while providing a fast dynamic response and superior performance. Although advantageous, the lifetime performance of this modern control can be limited. As in any model-based control, the closed-loop performance highly depends on how accurately the electrical drive is modeled. On the other hand, the MPC computation burdens reduction, the weighting factor tuning as well as the switching frequency control, are topics of interest that require further investigation.

This Special Issue aims to bring together leading academic scientists, researchers and practicing engineers to exchange and share their experiences and research results in the aforementioned fields, indicating the future trends for the model predictive control of electrical drives.





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](http://www.mdpi.com)

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