Special Issue

Predictive and Learning Control in Engineering Applications

Message from the Guest Editors

In many control design problems, a model-based approach is chosen. This approach has proven its effectiveness in several engineering applications as long as the dynamics involved are known and analytically describable. Nevertheless, even if the dynamics are uncertain, robust controllers can be designed to ensure the stability of the studied system in spite of the uncertainty. The problem is that classic robust control design suffers from conservatism, which reduces the performance of the controller. Since the limitation comes from uncertainty, if the dynamics could be known precisely, the problem would be solved. Thanks to learning-based identification, the modeling of the dynamics can be improved. Once the modeling is improved, a predictive control could be applied to achieve an optimal solution. This Special Issue focuses on recent advances in the design, validation, and implementation of predictive and learning-based control strategies. This Special Issue is not limited to a specific application, and all engineering applications are welcome.

Guest Editors

Dr. Moad Kissai

Prof. Dr. Bruno Monsuez

Dr. Barys Shyrokau

Deadline for manuscript submissions

6 September 2025

Electronics

an Open Access Journal by MDPI

Impact Factor 2.6
CiteScore 6.1

mdpi.com/si/77728

Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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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 guestedited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero
Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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