Special Issue

Model Predictive Control and Optimization Applied to Process Control

Message from the Guest Editors

Predictive control (MPC) is one of the advanced control techniques with a significant impact on industry. However, the use of optimization routines involves a high computing cost, which usually restricts its application to environments with high-performance computers or slow dynamic processes. That question evidences that there is a significant gap between the state-of-the-art research and applications in the MPC field. The topics of interest of this Special Issue include but are not limited to:

- Nonlinear predictive control of hybrid systems
- Multimodal nonlinear predictive control
- Stochastic predictive control
- Fuzzy and neural network predictive control
- Adaptative predictive control
- Economic predictive control
- Predictive control for fast dynamics
- Explicit predictive control
- Optimization algorithms for model predictive control
- Heuristic optimization for model predictive control
- Real industrial applications
- Real-time model predictive implementation
- Machine learning and artificial intelligence for model predictive control.

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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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