Machines Predictive Control

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Message from the Guest Editors

In recent years, Model Predictive Control (MPC) has been a powerful advanced control technology in industrial machine drives, due to its superior control performance, excellent dynamic response and the ability to easily include multiple-objective control into the cost function. At each sampling time, MPC defines the control action by minimizing a cost function that describes the desired machine behavior. This cost function compares the predicted variables to be controlled with their references. The predicted variables are calculated from the machine model and duplicated according to the possible voltage vectors of the power converter.

Topics include, but are not limited to, the following research areas:

- New MPC of electrical machines
- Stability and robustness of MPC
- Model-free predictive control approaches
- MPC algorithms with reduced computational complexity
- Implementation issues of MPC
- Artificial intelligence and data-driven in predictive control

Special Issue

Editor-in-Chief

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.

Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.

There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

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