



Predictive and Learning Control in Engineering Applications

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Message from the Collection 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.





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Message from the Editor-in-Chief

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