



**International Journal of Modelling, Identification and Control**

**Special Issue on: "Recent Advances on Learning-Based Control: Theory and Application"**

*Guest Editors:*

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Learning-based control has been considered as an effective control technique for systems with unknown dynamics/disturbances. Conventional learning-based control has been proven and applied to both continuous-time and discrete-time systems, as well as large-scale interconnected systems. Recently there is a burst of reinforcement learning research, which relies on the interaction between a decision-making agent and its environment to achieve long-term goals. Both model-based and model-free reinforcement learning has been widely studied and applied to various applications. Another recent research direction is to combine both conventional and advanced learning-based control with other control techniques such as optimal control and adaptive control, to provide a systematic control solution with theoretical performance guarantees. This special issue will focus on recent research and development in learning-based control and its applications including but not limited to automotive systems, energy systems, real-time embedded control, etc.

**Subject Coverage**

Suitable topics include, but are not limited, to the following:

- Reinforcement learning
- Iterative learning control
- Gaussian process
- Adaptive control
- Adaptive estimation
- System Identification
- Time-series
- Cooperative robotics
- Intelligent transportation systems
- Model-based and model free RL
- Distributed control
- Model predictive control
- Optimal control
- Stochastic control
- Time varying systems
- Connected and autonomous vehicles
- Electric vehicles
- Power and energy systems

## **Notes for Prospective Authors**

Submitted papers should not have been previously published nor be currently under consideration for publication elsewhere. (N.B. Conference papers may only be submitted if the paper has been completely re-written and if appropriate written permissions have been obtained from any copyright holders of the original paper).

All papers are refereed through a peer review process.

**All papers *must* be submitted online.** To submit a paper, please read our [Submitting articles](#) page.

## **Important Dates**

Manuscripts due by: *30 June, 2022*

Notification to authors: *31 October, 2022*

Final versions due by: *15 January, 2023*