Annual International Symposium on Industrial Electronics (ISIE) 2023

Special Sessions on

"Data-driven safe control and monitoring for autonomous robotic systems"

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Call for Papers

Theme:

The prevalence of computation cores integrated with physical processes boosts the developments of autonomous intelligent robots, which are tangibly interacted with operational environments, humans and other robots as well as adapt to complex dynamical uncertainties leading to enormous potentials on targeted therapy and deep space exploration. Note that the crux of capture, tracking and stretch of robot lies in the feasible motion control, whereas utilizing data-based strategies to guarantee the robustness and safety of robot remains an open problem nowadays. This special session focuses on (but not limit to) data-driven control for intelligent robots with closed-loop performance guarantees in the presence of unknown uncertainties and with smart rigid-soft coupling structures.

Topics of interest include, but are not limited to:

1	Learning-based control for robots and manipulators
2	Neural-feedbacked control for robots and manipulators
3	Model predictive control for robots and manipulators
4	Formal analysis and verification of safety-critical robots
5	Data-driven control for robots and manipulators
6	Event-triggered control for robots and manipulators
7	Data-driven anomaly detection and identification for robots and manipulators
8	Learning-based life prediction for robots and manipulators
9	Performance degradation evaluation for robots and manipulators
10	Performance-supervised / performance-oriented monitoring

Submissions Procedure:

All the instructions for paper submission are included in the conference website**:**
https://2023.ieee-isie.org/

Deadlines:

Full paper submission: January 31, 2023

Paper acceptance notification: April 15, 2023

Camera-ready paper submission: April. 30, 2023