Annual Conference of the IEEE Industrial Electronics Society (IECON 2022)

Special Session on
"Advances in Data-Driven Process Monitoring and Control for Complex Industrial Systems"

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Call for Papers

Theme: In recent years, driven by the rapid advancements in electronics, information and communication technology, disruptive changes are taking place in the industrial environment. Due to the ever-increasing demands on product quality and economic benefit, not only are intelligent components and devices implemented and networked, but real-time supervision and control systems are also running in parallel. Consequently, the degree of automation in modern industrial systems is continuously growing. This fact challenges scientists and engineers to develop advanced process monitoring and control methodologies, using offline, stored, or online process data to solve optimal process monitoring and control issues. This Special Session is to provide a forum for researchers and industrial engineers to exchange their latest results on data-driven process monitoring and control techniques, and to discuss the vital issues, challenges and possible future trends in modern large-scale industrial systems. The papers to be accepted in this Special Session are expected to provide the latest developments in data-driven design approaches, especially new theoretical results with practical applications.

Topics of interest include, but are not limited to:

1	Multi-sensory data analysis and feature extraction of industrial systems
2	Data-driven monitoring and intelligent control methods
3	Cloud/edge computing-aided performance evaluation, diagnosis, decisions and control approaches
4	Data-driven distributed and plug-and-play monitoring and optimal control system designs
5	Lifecycle management of industrial digital twins
6	AI-aided applications in contemporary industrial systems

IES Technical Committee Sponsoring the Special Session:

TC: Data-Driven Control and Monitoring

Good quality papers may be considered for publication in the IEEE Trans. on Industrial Electronics, subject to further rounds of review.

Submissions Procedure:
All the instructions for paper submission are included in the conference website**: https://iecon2022.org/**

Deadlines:

Full paper submission:	April 15, 2022
Paper acceptance notification:	June 17, 2022
Camera-ready paper submission:	July. 29, 2022

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