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Special Session on

"Advances in Data-Driven Fault Diagnosis and Fault-Tolerant Control for Industrial Systems"

Organized by

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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 fault diagnosis and fault-tolerant 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 fault diagnosis and fault-tolerant 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:
- Data-driven fault diagnosis approaches and applications.
- Model-free or data-driven fault-tolerant control designs and applications.
- Data-driven performance evaluation, diagnosis, decisions and their applications.
- Data-driven optimization methods and applications.
- Real-time model-free learning methods and practical applications.