Condition Monitoring and the Safety of Industrial Processes

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Message from the Guest Editors

With the rapid developments in process control and automation, the Internet of Things, process measurement and instrumentation, and process intensification, industrial processes are becoming more automated and integrated. The safety of such highly automated and integrated industrial processes is becoming increasingly important. In recent decades, a broad range of techniques for the safety of industrial processes have been developed. Examples of these include model-based approaches, knowledge-based approaches, and data-driven approaches based on multivariate statistical data analysis and machine learning techniques. The rapid development of AI techniques in recent years has resulted in novel tools for addressing the safety of industrial processes.

This Special Issue aims to bring together the recent advances in innovative techniques for improving the safety of industrial processes. The scope of this Special Issue includes, but is not limited to, the following topics:

- Fault detection;
- Fault diagnosis;
- Fault prognosis;
- Process monitoring;
- Multivariate statistical process control;
- Machine learning for process safety;
- Fault tolerant control.

Special Issue

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Message from the Editor-in-Chief

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