



## Advances in Condition Monitoring, Optimization and Control for Complex Industrial Processes

Guest Editors:

**Dr. Zhiwei Gao**

Department of Mathematics,  
Physics and Electrical  
Engineering, Northumbria  
University, Newcastle upon Tyne  
NE1 8ST, UK

**Prof. Dr. Michael Z. Chen**

School of Automation, Nanjing  
University of Science and  
Technology, Nanjing 210094,  
China

**Dr. Dapeng Zhang**

School of Electrical Engineering  
and Automation, Tianjin  
University, Tianjin, China

Deadline for manuscript  
submissions:

**closed (31 December 2020)**

### Message from the Guest Editors

The Special Issue on "Advances in Condition Monitoring, Optimization and Control for Complex Industrial Processes" aims to provide a platform for researchers and engineers to report their recent results, exchange research ideas, and overlook emerging research and application directions in condition monitoring, optimization and advanced control for complex industrial processes.

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

- Complex dynamic analysis of industrial processes
- Condition monitoring techniques
- Machine learning-based diagnosis and prognosis algorithms
- Advanced optimization methodologies
- Resilience of cyber–physical systems
- Advanced control algorithms and robustness analysis with applications
- Accelerating multiscale dynamic simulations of industrial processes
- Validation and real-time applications





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Giancarlo Cravotto**

Department of Drug Science and  
Technology, University of Turin,  
Via P. Giuria 9, 10125 Turin, Italy

## Message from the Editor-in-Chief

*Processes* (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

## Author Benefits

**Open Access:** free for readers, with **article processing charges (APC)** paid by authors or their institutions.

**High Visibility:** indexed within **Scopus**,  
**SCIE (Web of Science)**, **Ei Compendex**, **Inspecc**, **AGRIS**, and **other databases**.

**Journal Rank:** JCR - Q2 (*Engineering, Chemical*) / CiteScore - Q2 (*Chemical Engineering (miscellaneous)*)

## Contact Us

---

*Processes* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/processes](http://mdpi.com/journal/processes)  
[processes@mdpi.com](mailto:processes@mdpi.com)  
[X@Processes\\_MDPI](https://twitter.com/Processes_MDPI)