

The 15th International FLINS Conference on Machine learning, Multi agent and Cyber physical systems

August 26-28,2022, Tianjin, China



Special Session on

Computational Techniques Based Intelligent Manufacturing Systems in Process Industry

https://flins2022.scievent.com/

FLINS2022 is the fifteenth in a series of conferences on computational intelligence systems with focus on Machine learning, Multi agent and Cyber physical systems. The conference will be held in Tianjin, China.

FLINS 2022 proceedings will be again published as a book by the World Scientific and it will be again included in the ISI proceedings as previous ones, as well as be included in EI Compendex for indexing. Moreover, special issues in **International Journal of Computational Intelligence Systems** (SCI indexed, Impact Factor: 1.736) and **Applied Sciences** (SCI indexed, Impact Factor: 2.679) will be devoted to a strictly refereed selection of extended papers presented at FLINS 2022.

Scope and Motivation

Motivation:

In the context of Industry 4.0, intelligent manufacturing systems have attracted various industrial sectors, especially process industries (e.g. chemical engineering, papermaking, textile manufacturing, metal smelting, sewage disposal, petroleum, etc.) in order to realize data-driven innovations for delivering highly customizable products and services faster, cheaper, better, and greener. In an intelligent manufacturing system of process industry, computational techniques constitute a key issue for providing efficient decision support tools based on data measured through Internet of Thing (IoT) and ubiquitous sensing mechanism. In complex industrial production scenarios, these computational techniques enable to enhance the quality of products and their manufacturing processes as well as sustainability (i.e. minimization of environmental and social impacts), and reduce uncertainties related to human factors. In this regard, this special session aims to collect the latest scientific contributions on computational techniques applied to intelligent manufacturing systems of process industry (concepts, methodologies, algorithms and applications) in order to offer a systematic overview of this emerging research field and provide innovative interdisciplinary and industry-oriented approaches. This special section will bring together researchers, engineers, and practitioners on the area of computational techniques based intelligent manufacturing systems in process industry for discussing and exploring the most promising applications.

<u>Scope</u>

Intelligent manufacturing, industrial decision support, warning systems, intelligent fault diagnosis, smart power, cyber-physical, IoT and smart environments, process control, time series prediction, signal and image processing, visual quality monitoring and analysis, risk analysis and safety-related issues, responsible AI, industrial robotics, modelling and optimization, scheduling and optimization, process maintenance

Important Dates:

Full paper submission February 28, 2022
Notification of acceptance March 31, 2022
Camera-ready paper submission April 15, 2022
Author registration April 25, 2022
Conference Date August 26-28, 2022

Paper Submission: https://easychair.org/conferences/?conf=flins20220

Contacts:

<u>Names</u>	<u>Telephones</u>	<u>Department</u>	University or Institution, City, Country
Zhenglei He	hezhenglei@scut.edu.cn	State Key Laboratory of Pulp & Paper Engineering	South China University of Technology, Guangzhou, China
Yi Man	Manyi@scut.edu.cn	State Key Laboratory of Pulp & Paper Engineering	South China University of Technology, Guangzhou, China
Ping Zhou	zhouping@mail.neu.edu.cn	State Key Laboratory of Synthetical Automation for Process Industries	Northeastern University, Shenyang, China