

DMPI–4.0 vol. 2 – 2020

Special Session on Data Modelling and Processing for Industry 4.0

at the 13th Asian Conference on Intelligent Information and Database Systems (ACIIDS 2021)

Phuket, Thailand, April 7-10, 2021

Conference website: <http://www.aciids.pwr.edu.pl/2021>

Special Session Organizers

Marek Krótkiewicz

Department of Applied Informatics
Wrocław University of Science and Technology
E-mail: marek.krotkiewicz@pwr.edu.pl

Wojciech Hunek

Department of Control Engineering
Opole University of Technology, Poland
E-mail: w.hunek@po.opole.pl

Krystian Wojtkiewicz

Department of Applied Informatics
Wrocław University of Science and Technology
E-mail: krystian.wojtkiewicz@pwr.edu.pl

Objectives and topics

Industry 4.0 is no longer a future. We are facing this new, technological revolution at this very moment. The primary issue Industry 4.0 brings is the way that data from the production process should be stored and analyzed for boosting the productiveness.

Following the success of the first edition of DMPI–4.0 session, we strive to promote the most ambitious and innovative approaches towards the automation of production processes in the scope of IT systems, control algorithms, and data analysis.

The scope of the session includes but is not limited to the following groups of topics concerning Industry 4.0:

IT SYSTEMS ARCHITECTURE

- adaptive systems
- business process modelling
- business process optimization
- cognitive algorithms
- cognitive systems
- data and database metamodels
- data visualization
- human-system interaction
- intelligent agents
- knowledge engineering practice
- knowledge engineering: tools and applications
- knowledge representation techniques
- knowledge visualization
- knowledge-based systems
- modelling languages
- modelling patterns
- multi-agent systems
- ontology engineering
- reasoning

CONTROL SYSTEMS

- adaptive control
- automation
- control design methods
- control system applications
- control system theory
- discrete event systems
- embedded systems
- fault detection
- fault-tolerant control
- fractional-order control system design
- hybrid systems
- intelligent control
- inverse model control design – generalized inverses
- man-machine interactions
- manufacturing system control
- monitoring and supervision
- multivariable control
- nonlinear control
- process control
- robotics
- robust control
- signal processing
- system identification

DATA ANALYSIS

- cognitive diagnosis
- conceptual data models
- data-driven process optimization
- data engineering technologies
- data engineering applications
- data models for big data
- data mining foundations
- data mining applications
- data visualization
- deep learning
- hybrid and nonlinear system
- industrial data analysis
- machine learning techniques
- predictive data analysis
- signal processing
- tools and applications for data modelling

Important dates

Submission of papers: **1 December 2020**
Notification of acceptance: **30 December 2020**
Camera-ready papers: **15 January 2021**
Registration & payment: **15 January 2021**
Conference date: **7-10 April 2021**

Program Committee (to be invited)

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All original previously unpublished research papers written in English, of up to 12 pages, strictly following the LNCS/LNAI format guidelines are welcome for the publication. Authors can download the Latex (recommended) or Word templates available at [Springer's web site](#). Submissions not following the format guidelines will be rejected without review. For the sake of high quality, all papers will undergo a thorough review by the DMPI-4.0 vol. 2 Program Committee. At least one author of each accepted article must register for the conference and pay the fee, as well as, present the research during the ACIIDS 2021.

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