

Special Issue

Design, Modeling, Verification, and Analysis of Cyber-Physical Systems

Message from the Guest Editors

This Special Issue is focused on the design, modeling, verification, and analysis of cyber-physical systems (CPS). Topics of interest include but are not limited to:

Design and modeling techniques of CPS:

Design techniques of CPS, including design methods and algorithms;

Aspects related to the control-part in the designing of CPS;

Model-based development of CPS, including UML, SysML, etc.;

Modeling dynamic behaviors of CPS;

Concurrency models of CPS, including Petri net-based specification;

Sequential modeling, including finite-state machines;

Distributed and networked control of CPS;

Implementation methods of distributed CPS;

Hardware platforms including microcontrollers, SoCs, and FPGAs.

Analysis and verification of CPS:

Analysis and verification methods of CPS, including optimization algorithms;

Verification and validation techniques, including formal verification methods;

Simulation techniques of CPS;

Analysis of concurrency and sequentiality relations in CPS;

Optimization techniques;

Security aspects of CPS, including cryptographic techniques and algorithms

Guest Editors

Prof. Dr. Remigiusz Wiśniewski

Institute of Electrical Engineering, University of Zielona Góra, Zielona Góra, Poland

Prof. Dr. Dariusz Kania

Faculty of Automatic Control, Electronics and Computer Science, Silesian University of Technology, 44-100 Gliwice, Poland

Deadline for manuscript submissions

closed (30 November 2020)



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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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About the Journal

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,
The Gateway, Leicester LE1 9BH, UK

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.3 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2024).