# **Special Issue**

# Modeling, Simulation, Control and Optimization in Engineering with Applications, 2nd Edition

## Message from the Guest Editors

The Special Issue aims to compile a collection of case studies, examples of application, and new optimization and simulation-based techniques specifically oriented to facilitate the controller design task and ensure its successful behavior. Topics include, but are not limited to, the following:

- Mathematical modeling of physical systems.
- Simulation and optimization software.
- Computational processes in modeling, simulation, and optimization.
- Optimization approaches for control system design.
- Optimization and modeling in artificial intelligence.
- Modeling, simulation, and optimization of coupled problems.
- Modeling and simulation-based decision support systems.
- Defining synthetic environments for engineering problems.
- Model predictive, robust, and adaptative control.
- Machine learning and artificial intelligence-based control systems.
- Modeling, simulation, control, and optimization of industrial processes, electrical and energy systems, or transport systems.
- Modeling, control, navigation, and guidance of unmanned vehicles.
- MSCO applied to biosystems, sustainable systems, and biomedical engineering.

## **Guest Editors**

Prof. Dr. Montserrat Gil-Martinez

Prof. Dr. Ramón Vilanova Arbós

Prof. Dr. Marian Barbu

## Deadline for manuscript submissions

20 December 2025



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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

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