

Special Issue

Advanced Technologies for Modeling and Optimization of Control Systems and Biomedical Engineering

Message from the Guest Editor

Advanced technologies such as Cyber-Physical Systems (CPSs), the Internet of Things (IoT), and Artificial Intelligence (AI) are revolutionizing traditional control systems and biomedical systems. This Special Issue focuses on cutting-edge developments in the modeling and optimization of control systems and biomedical systems, addressing both theoretical innovations and practical implementations across diverse industrial and technological domains. With the increasing complexity of modern dynamic systems, this Special Issue highlights novel methodologies for system identification, controller design, and performance enhancement under constraints, as well as their applications in industrial automation, biomedical engineering, and smart grids, amongst other fields. Particularly in the field of biomedical engineering, emphasis is placed on AI-embedded technologies to improve the accuracy and efficiency of medical image processing and to optimize diagnosis and treatment.

Guest Editor

Dr. Shen Yan

College of Mechanical & Electronic Engineering, Nanjing Forestry University, Nanjing 210037, China

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Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
mathematics@mdpi.com

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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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