

Special Issue

Digital Twin and Artificial Intelligence for Prognostics and Health Management

Message from the Guest Editors

We invite you to contribute to a Special Issue on "Digital Twin and Artificial Intelligence for Prognostics and Health Management". This issue explores the transformative impact of digital twin technology and AI in advancing Prognostics and Health Management (PHM), focusing on the role of mathematical models to enhance predictive accuracy, reliability, and efficiency. Recent advancements in digital twins and AI have revolutionized industries by enabling real-time monitoring, fault detection, and predictive maintenance. However, achieving accurate PHM outcomes requires overcoming challenges like developing robust mathematical frameworks, optimization techniques, and scalable AI models. This Special Issue aims to gather cutting-edge research that integrates statistical modeling, optimization, and simulation with advanced AI to address these challenges and support intelligent decision-making in PHM. We invite contributions exploring the mathematical foundations and practical applications of these technologies in areas such as smart factories, robotics, and composite materials. We look forward to advancing this exciting field with your valuable input.

Guest Editors

Prof. Dr. Chang Wan Kim

School of Mechanical Engineering, Konkuk University, 120, Neung Dong-ro, Gwangjin-gu, Seoul 05029, Republic of Korea

Dr. Izaz Raouf

Department of Mechanical, Robotics and Energy Engineering, Dongguk University, Seoul 04620, Republic of Korea

Deadline for manuscript submissions

31 August 2025



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/226834

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

[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)





Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



[mdpi.com/journal/
mathematics](https://mdpi.com/journal/mathematics)



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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).