



Applications of Artificial Intelligence and Pattern Recognition

Guest Editors:

Prof. Dr. Yen-Lin Chen

Department of Computer Science and Information Engineering, National Taipei University of Technology, 1, Sec. 3, Chung-hsiao E. Rd., Taipei 10608, Taiwan

Dr. Wai-Khuen Cheng

Faculty of Information and Communication Technology, Department of Computer Science, Universiti Tunku Abdul Rahman, Jalan Universiti Bandar Barat. 31900 Kampar, Perak, Malaysia.

Prof. Dr. Hsin-Hui Hu

Department of Electronic Engineering, National Taipei University of Technology, 1, Sec. 3, Chung-hsiao E. Rd., Taipei 10608, Taiwan

Deadline for manuscript submissions:

closed (31 March 2024)

Message from the Guest Editors

In the context of this special issue, researchers are encouraged to explore how mathematical modelling and analysis techniques can be applied to improve AI algorithms and systems. Optimization methods may be employed to develop efficient algorithms capable of handling large datasets in real-time. Numerical methods can be used to analyze and solve complex mathematical models that arise in AI applications. Control theory methods may be developed to ensure that AI systems operate safely and effectively in various environments. Additionally, network technology can be leveraged to enhance the scalability and performance of distributed AI systems. By utilizing these mathematical approaches, researchers can improve the theoretical foundations of AI and devise practical solutions to real-world problems.

Topics include but are not limited to:

- Computer vision;
- Pattern recognition;
- Optimization methods;
- Numerical methods for intelligent systems;
- Financial technology;
- Smart Manufacturing.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and
Informatics, De Montfort
University, The Gateway,
Leicester LE1 9BH, UK

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

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

Journal Rank: JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

Contact Us

Mathematics Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/mathematics
mathematics@mdpi.com
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)