Advances in Artificial Intelligence, Machine Learning and Optimization

Special Issue Information

Dear Colleagues,

We are pleased to announce a Special Issue on "Advances in Artificial Intelligence, Machine Learning and Optimization" for *Mathematics* MDPI (https://www.mdpi.com/journal/mathematics, https://www.mdpi.com/journal/mathematics/special_issues/Artificial_Intelligence_Machine_Learning_Optimization, JCR Q1). This Special Issue aims to bring together the latest research and developments at the intersection of these three dynamic fields. Artificial Intelligence (AI), Machine Learning (ML), and Optimization play pivotal roles across various domains, shaping the future of technology, industry, medicine, and society. The potential for synergistic advancements in these areas is vast, and we are excited to explore the cutting-edge contributions driving progress in this space.

We welcome submissions that delve into, but are not limited to, the following topics:

1. Advanced machine learning algorithms for optimization;
2. Integration of AI techniques in optimization problems;
3. Optimization methods for enhancing machine learning models;
4. AI-driven approaches for large-scale optimization;
5. Deep learning applications in solving complex optimization challenges;
6. Metaheuristic and evolutionary algorithms in machine learning and AI;
7. Optimization for neural network training and architecture design;
8. Reinforcement learning for optimization and decision-making;
9. Novel applications of AI and machine learning in optimization problems across various domains;
10. Integrating multi-attribute decision-making techniques with AI, machine learning, and optimization methodologies in the context of advanced manufacturing, smart factories, industrial automation, and related domains.

We encourage researchers and practitioners to contribute their original research, reviews, and perspectives on these and related topics. Submissions should aim to uncover new insights, present state-of-the-art methodologies, and offer practical applications in Artificial Intelligence, Machine Learning, and Optimization.

We look forward to your valuable contributions to this Special Issue, and we are confident that the collective expertise of the research community will lead to an impactful and informative compilation.

Prof. Dr. Zne-Jung Lee

Prof. Dr. Liang-Hung Wang

Guest Editors

Manuscript Submission Information

Manuscripts should be submitted online at **www.mdpi.com** by **registering** and **logging in to this website**. Once you are registered, **click here to go to the submission form**. Manuscripts can be submitted until the deadline. All submissions that pass pre-check are peer-reviewed. Accepted papers will be published continuously in the journal (as soon as accepted) and will be listed together on the special issue website. Research articles, review articles as well as short communications are invited. For planned papers, a title and short abstract (about 100 words) can be sent to the Editorial Office for announcement on this website.

Submitted manuscripts should not have been published previously, nor be under consideration for publication elsewhere (except conference proceedings papers). All manuscripts are thoroughly refereed through a single-blind peer-review process. A guide for authors and other relevant information for submission of manuscripts is available on the **Instructions for Authors** page. ***Mathematics*** is an international peer-reviewed open access semimonthly journal published by MDPI.

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