Summary

The use of heuristic and meta-heuristic algorithms in an artificial way helps effectively solve many challenging real-world problems. In comparison to mathematical models and combinatorial optimization techniques, these algorithms are efficient in terms of the computational times. However, the development of computational technology and artificial intelligence techniques made it possible to get the optimal solutions to many challenging problems. This has triggered the development of new mathematical methods and algorithms, aiding to solve some of the most complicated and hard problems in various engineering fields.

This special issue aims to present new trends in mathematical methods and intelligent algorithms with an emphasis on applied sciences. The topics of the special issue include, but are not limited to:

- Linear and nonlinear programming
- New heuristic and meta-heuristic algorithms
- Multi-objective optimization
- Optimization and control
- Engineering applications of artificial intelligence
- Combinatorial optimization
- Industrial applications of new optimization methods
- Energy systems modelling and optimization
- Fractional calculus and its applications
- Population dynamics and conservation biology
- Mathematical biology
- Stability analysis of systems

Devoted to selected high-quality papers from the ICAME'21 (http://icame.balikesir.edu.tr), the special issue will also be open to invited papers. The tentative plan on the important dates is as follows:

Submission System Opens: December 15, 2021
Paper Submission Deadline: March 15, 2022
Notification to Authors: July 1, 2022
Final Decision: October 31, 2022
Publication: Until the end of 2022 or 2023

The papers must be prepared conforming to the Author Guidelines of *Numerical Algebra, Control and Optimization*. They must be original and carry the basic standards of the journal. The authors must ensure that the paper has not been previously published nor be currently under consideration for publication elsewhere. All submissions will go through a rigorous peer-reviewing process based on the high-standard of the journal.

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