

## Special Issue

# Metaheuristic Algorithms in Optimal Design of Engineering Problems

### Message from the Guest Editors

Metaheuristic algorithms are a class of optimization algorithms that can solve complex engineering design problems by finding near-optimal solutions efficiently. Some of the most popular metaheuristic algorithms used in engineering design include genetic algorithms, particle swarm optimization, simulated annealing, and ant colony optimization. These algorithms can efficiently solve complex optimization problems with many design variables and constraints, allowing engineers to quickly and accurately identify optimal solutions. The use of metaheuristic algorithms in engineering design has several advantages, including the ability to handle nonlinear and non-convex optimization problems, the ability to find near-optimal solutions in a reasonable amount of time, and the ability to handle large-scale optimization problems. Overall, metaheuristic algorithms are an important tool for engineers to optimize the design of complex engineering systems and processes.

- metaheuristic optimization algorithms
- genetic algorithms
- particle swarm optimization
- simulated annealing
- engineering design

---

### Guest Editors

Dr. Łukasz Knypiński  
Dr. Ramesh Devarapalli  
Dr. Marcin Kaminski

---

### Deadline for manuscript submissions

closed (31 July 2024)



## Algorithms

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 4.5



[mdpi.com/si/173154](https://mdpi.com/si/173154)

*Algorithms*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[algorithms@mdpi.com](mailto:algorithms@mdpi.com)

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





# Algorithms

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.1  
CiteScore 4.5



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



## About the Journal

### Message from the Editor-in-Chief

Algorithms are the very core of Computer Science. The whole area has been considered from quite different perspectives, having led to the development of many sub-communities: Complexity theory (limitations), approximation or parameterized algorithms (types of problems), geometric algorithms (subject area), metaheuristics, algorithm engineering, medical imaging (applications), indicates the range of perspectives. Our journal welcomes submissions written from any of these perspectives, so that it may become a forum for exchange of ideas between the corresponding scientific subcommunities.

---

### Editor-in-Chief

Prof. Dr. Frank Werner

Faculty of Mathematics, Otto-von-Guericke-University, P.O. Box 4120,  
D-39016 Magdeburg, Germany

---

### Author Benefits

#### Open Access:

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

#### High Visibility:

indexed within Scopus, ESCI (Web of Science), Ei Compendex, and other databases.

#### Journal Rank:

JCR - Q2 (Computer Science, Theory and Methods) /  
CiteScore - Q1 (Numerical Analysis)