Special Session on

Metaheuristic Algorithms for Facility Location Problems

in conjunction with

23rd International Conference on Intelligent Systems Design and Applications (ISDA)

December 11-13, 2023

Website: http://www.mirlabs.org/isda23

Hybrid Mode – Online & Offline

Onsite Venues: **http://mirlabs.org/isda23/venue2.php**

Objectives and Scope

We propose a special session focused on the application of metaheuristic algorithms to facility location problems. Facility location problems have gained significant attention in various fields due to their relevance in optimizing resource allocation, service provision, and supply chain management. Metaheuristic algorithms have proven to be powerful tools for tackling complex optimization problems, and their application to facility location problems has shown promising results in finding near-optimal solutions for real-world scenarios.

The primary objective of this special session is to bring together researchers, practitioners, and experts from diverse fields to exchange insights, methodologies, and findings related to the application of metaheuristic algorithms to facility location problems. This session aims to:

1. Present recent advancements in metaheuristic algorithms such as genetic algorithms, particle swarm optimization, simulated annealing, ant colony optimization, and others, applied to various types of facility location problems.
2. Discuss the challenges and opportunities in using metaheuristic approaches for solving complex facility location problems in different industries.
3. Share case studies and practical applications that highlight the effectiveness of metaheuristic algorithms in real-world facility location optimization.
4. Foster collaboration and knowledge exchange among participants to promote further research in this interdisciplinary area.

Subtopics

We invite submissions that cover a wide range of topics related to metaheuristic algorithms for facility location problems, including but not limited to:

1. Novel metaheuristic algorithms tailored for specific facility location models.
2. Hybrid approaches that combine metaheuristics with other optimization techniques to enhance solution quality and convergence speed.
3. Multi-and many objective facility location optimizations using metaheuristics.
4. Application of metaheuristics to dynamic and uncertain facility location problems.

5. Metaheuristic-based solutions for large-scale and real-time facility location optimization.
6. Case studies in various domains such as logistics, telecommunications, healthcare, and urban planning related to facility optimization.
7. Benchmarking and performance analysis of different metaheuristic algorithms for facility location problems.

Paper publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (https://www.springer.com/series/15179)
- Indexed by SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago
- Paper maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at: https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324
- Submission Link: https://cmt3.research.microsoft.com/ISDA2023

Important Dates

Paper submission due: **September 30, 2023**
Notification of paper acceptance: **October 31, 2023**
Registration and Final manuscript due: **November 10, 2023**
Conference Date: **December 13-15, 2023**

Special Session Chairs

- **Prof. Priya Ranjan Sinha Mahapatra**, University of Kalyani, Kalyani, West Bengal, India
- **Dr. Soumen Atta**, University of Nova Gorica, Vipavska 13, SI-5000 Nova Gorica, Slovenia

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