

Special Session on
AI and ML for Innovative Breakthroughs in Chemical Engineering
in conjunction with
15th International Conference on Soft Computing and Pattern Recognition
(SoCPaR'23)

December 13-15, 2023

Website: <http://www.mirlabs.org/socpar23>

Hybrid Mode – Online & Offline

Onsite Venues: <http://mirlabs.org/socpar23/venue2.php>

Objectives and Scope

This conference session delves into the dynamic realm of applying AI and ML in chemical engineering, unveiling the remarkable opportunities and transformative potential they offer. With a focus on real-world applications and tangible outcomes, this session brings together experts and enthusiasts to explore how AI and ML are revolutionizing process optimization, materials discovery, sustainable practices, safety enhancement, and more. Through insightful discussions and case studies, attendees will gain invaluable insights into how AI and ML are reshaping the landscape of chemical engineering, driving efficiency, innovation, and sustainable progress.

Subtopics

The topics include, but are not limited to:

- AI-Driven Process Optimization
- Machine Learning in Reaction Engineering
- ML-based catalyst design and optimization
- Data-Driven Quality Control and Assurance
- Sustainable Practices and Green Chemistry
- Materials Discovery and Design
- Supply Chain Management and Optimization
- AI-Assisted Equipment Design and Maintenance
- Process Safety and Risk Assessment
- Ethical and Regulatory Considerations

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/SOCPAR2023>

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 Chair(s)

- **Dr. Himali Horo**, Thapar Institute of Engineering and Technology, Patiala, India
- **Dr. Anu Bajaj**, Thapar Institute of Engineering and Technology, Patiala, India

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