

2025 IEEE 8th International Conference on Pattern Recognition and Artificial Intelligence

Special Session **02**

Artificial Intelligence for Aerospace applications

The increasing complexity of space missions has created an urgent demand for the application of artificial intelligence (AI) technologies in the aerospace sector. Specifically, integrating advanced algorithms into spacecraft operations to enhance their intelligence capabilities has emerged as a key trend. This special session aims to tackle the unique challenges of aerospace applications by focusing on AI technologies, such as intelligent perception, control, and computation. It provides a forum for industry experts to exchange ideas and develop effective solutions for improving intelligent perception and decision-making in unmanned systems for complex space missions. Through this collaborative effort, the session seeks to empower the aerospace industry to lead a new revolution in the space sector.



Session Chair ▼

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► Important Dates

Submission Deadline (Regular)

June 7, 2025

Notification Date (Regular)

June 28, 2025

Registration Deadline

July 15, 2025

RELATED TOPICS

Topics of interest include, but are not limited to:

- Design of efficient AI algorithms for embedded computing platform
- Core computing hardware design for aerospace artificial intelligence applications
- Application of AI algorithm in aerospace applications
- AI-driven optimization for satellite constellation management
- Machine learning techniques for predictive maintenance of aerospace vehicles
- Advanced algorithms for autonomous navigation and exploration in space
- AI applications in real-time data analysis from space missions
- Integration of AI in spacecraft design and manufacturing processes

► Publication



Accepted papers will be published in PRAI 2025

Conference Proceedings, and submitted for

inclusion into IEEE Xplore and indexed by EI Compendex & Scopus.

► Submission Information

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