ICIRA 2024 Special Session Proposal

Title of the Proposal: AI-Driven Smart Industrial Systems

Technical Outline of the Session and Topics:

Outline of the Session:

AI has revolutionised industries at an unprecedented pace. It plays a crucial role in achieving operational excellence by providing data insights, optimising processes, allowing customisation, and performing tasks repetitively with precision tirelessly. As a key part of digital transformation of various industries, AI has found itself many innovative applications and been advanced by newly discovered challenges and newly available datasets.

This special session on AI-Driven Smart Industrial Systems will be a captivating and knowledge-rich event that gathers experts and researchers to explore the advances of AI for industries. The session covers diverse themes, including AI models development, AI systems real-world application evaluation, smart industrial systems through the use of AI, and industry digital transformation. The attendees will witness the power of AI in industry to unveil its real impact. Participants will therefore gain insights to support the further development of AI technologies. To summaries, the session will foster collaboration, spark new research ideas, and leave attendees inspired to drive forward the frontiers of industrial AI and smart industrial systems.

Topics of the Session:

- *AI applications in industries, such as healthcare, green energy, battery, manufacturing, engineering etc.*
- *Industry data-driven and challenge-guided AI algorithms*
- *Feasibility study of AI systems in industry*
- *Industry 4.0*
- *Additive manufacturing*
- *Generative construction*
- *Smart healthcare*
- *Smart engineering and production*

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