

Human-AI hybrid intelligence and collaborative decision-making for industrial production systems (Code: 263t6)

Goal:

Human-centricity is the core value behind the evolution of manufacturing towards Industry 5.0. Under this trend, industrial production systems present increasingly prominent new characteristics and needs: more diverse human-machine and other related factors, more frequent uncertain changes, more intensive intelligence sharing, and more complex competition and cooperation relationships. Along with the wide use of artificial intelligence (AI), the rising question is the relationship between AI and human intelligence and how the two can synergistically address the challenges above. This special session focuses on the innovation research on human-AI hybrid intelligence for industrial production systems in Industrial 5.0. This special session aims to bring academic researchers and industrial professionals together to review the latest advances and explore future directions in this field.

Topics:

- Human cyber physical production systems, digital twin, and industry 5.0
- Perception and prediction for industrial production systems
- Dynamic scheduling and adaptive scheduling
- Production scheduling, operator dispatching, quality control, and equipment health management
- Collaborative decision-making for industrial production systems
- Data-driven and intelligent approaches for production decision-making
- Knowledge management based on autonomous learning and interactive learning
- Human-AI hybrid intelligence for industrial production systems

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