CALL FOR PAPERS - SPECIAL SESSION

"Artificial Intelligence and Optimization Methods for Smart Manufacturing and Logistics Systems"

for CODIT 2026

July 13-16, 2026 ▪ Bari, Italy

Session Co-Chairs:

Prof. Maria Pia Fanti, Polytechnic University of Bari, Italy - mariapia.fanti@poliba.it
Prof. Francesco Basile, Università degli Studi di Salerno, Italy - fbasile@unisa.it
Prof. Agostino Marcello Mangini, Polytechnic University of Bari, Italy - agostinomarcello.mangini@poliba.it
Prof. Michele Roccotelli, Polytechnic University of Bari, Italy - michele.roccotelli@poliba.it

Session description:

This special session addresses the challenge of enhancing the control, monitoring, and management of manufacturing and logistics systems using Artificial Intelligence (AI) and advanced optimization techniques. As AI has become a major driving force across multiple research domains, its application in engineering, manufacturing and logistics systems requires further investigation to ensure reliable, safe, and accurate decision-making processes.

The goal of this session is to present AI-based and optimization-driven models, methods, and applications that contribute to improving the efficiency, robustness, and safety of manufacturing and logistics operations. Particular attention is given to approaches that support data-driven decision-making and intelligent control in complex environments.

AI for smart manufacturing and logistics aims to increase productivity, product quality, flexibility, and resilience throughout the production lifecycle. Within the broader framework of Industry 4.0 and the emerging Industry 5.0 paradigm, AI plays a central role in enabling intelligent automation, seamless data exchange, and human-centric smart systems. Key application areas include supply chain optimization, process monitoring and optimization, predictive maintenance, last mile delivery, hydrogen transport and storage, and quality control, as well as the design and deployment of Digital Twins for real-time analysis and decision support

The topics of interest include, but are not limited to:

- Supply chain optimization
- Process optimization
- Predictive maintenance
- Automation in manufacturing

- Digital Twins in manufacturing
- AI-Based Modeling and Control of Manufacturing Systems
- Asset Health Management Using AI
- AI-Driven Quality Control and Defect Detection in Manufacturing
- Explainable and Trustworthy AI for Industrial Decision Support
- Data-Driven Energy Efficiency and Sustainability in Manufacturing Systems
- Last mile delivery
- Hydrogen transport and storage
- Industrial logistics
- Automation in logistics

SUBMISSION

Papers must be submitted electronically for peer review through PaperCept by **February 07, 2026:** **http://controls.papercept.net/conferences/scripts/start.pl**. In PaperCept, click on the **CoDIT 2026 link "Submit a Contribution to CoDIT 2026" and follow the steps.**

IMPORTANT: All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 6 pages (in the standard IEEE conference double column format).

DEADLINES

February 07, 2026: deadline for paper submission

April 30, 2026: notification of acceptance/reject

May 20, 2026: deadline for final paper and registration