



Journal of Computing and Information Science in Engineering

CALL FOR PAPERS

Special Issue on Symbiotic Human-AI Partnership for Next Generation Factories

[Submit Manuscript →](#)

[ASME's Guide for Journal Authors](#)

CALL FOR PAPERS

[*ASME Journal of Computing and Information Science in Engineering*](#)

Special Issue on Symbiotic Human-AI Partnership for Next Generation Factories

As envisioned by Industry 4.0, the next generation of smart factories and warehouses will highly depend on the collaboration between human and artificial intelligence (AI). This symbiotic partnership can augment human capabilities by providing suggestions, assistance, and explanations as needed – or can utilize direct or indirect human feedbacks in a human-in-the-loop learning framework to enhance AI learning capabilities.

This Special Issue aims to harvest the latest efforts in fundamental methodologies as well as their applications in human-AI partnership with specific applications for next-generation factories encompassing the design process to manufacturing, production, and inspection.

Topic Areas

Potential topics in the context of next-generation factories include, but are not limited to:

- Human-AI partnership for supply chain and sustainable manufacturing systems
- Computational tools for human perception, cognitive assessment, and intention estimation
- AR/VR and novel interfaces for enhancing human-AI partnership
- Co-design of human-AI systems for manufacturing and automation
- System architecture for human-in-the-loop learning systems
- Evaluation methods and assessment of human-AI partnership
- Ethical consideration and financial impact of human-AI partnership on future manufacturing
- Digital twin in manufacturing with human-AI cooperation
- Human-AI partnership in robotics
- Human-AI partnership for workforce training/education
- Case studies and critical literature review

Publication Target Dates

Paper submission deadline: **August 31, 2021**
Initial review completed: **December 31, 2021**
Special Issue publication date: **June 2022**

Submission Instructions

Papers should be submitted electronically to the journal at journaltool.asme.org. If you already have an account, log in as author and select **Submit Paper** at the bottom of the page. If you do not have an account, select **Submissions** and follow the steps. In either case, at the **Paper Submittal** page, select the [*ASME Journal of Computing and Information Science in Engineering*](#) and then select the Special Issue **Symbiotic Human-AI Partnership for Next Generation Factories**.

Papers received after the deadline or papers not selected for inclusion in the Special Issue may be accepted for publication in a regular issue. Early submission is highly encouraged. Please also email the Editor-in-Chief, Professor Satyandra K. Gupta, at guptask@usc.edu, to alert him that your paper is intended for the Special Issue.

Special Issue Editors

Ehsan T. Esfahani, PhD, Mechanical and Aerospace Engineering, University at Buffalo, USA, ehsanef@buffalo.edu

Rahul Rai, PhD, Automotive Engineering, Clemson University, USA, rriai@clemson.edu

Ying Liu, PhD, Mechanical and Manufacturing Engineering, Cardiff University, UK, liuy81@cardiff.ac.uk

Gaurav Ameta, PhD, Siemens, USA, gaurav.ameta@siemens.com

Chih-Hsing Chu, PhD, Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan, chchu@ie.nthu.edu.tw

Bin He, PhD, Intelligent Manufacturing and Robotics, Shanghai University, China, mehebin@shu.edu.cn