Special Issue

Human-Al Hybrid Models Towards Cognitive Manufacturing and Service Systems

Message from the Guest Editors

Nowadays, the rapid advancements and widespread implementations of artificial intelligence (AI), digital twins (DTs), robotics, and human-machine interaction (HMI) have brought about remarkable transformations in the manufacturing and service industries. This Special Issue invites contributions that explore innovative human-AI hybrid models, methodologies, frameworks, applications, and reviews to advance cognitive manufacturing and service systems. Research topics may include (but are not limited to) the following:

- Frameworks for human-Al collaboration:
- Cognitive models in hybrid intelligent systems;
- Trustworthy and interpretable methods for manufacturing and service systems;
- Human-centric systems design;
- Innovative design of HMI;
- Human factor engineering and ergonomics studies;
- Human-robot collaboration;
- Human-Al-assisted DT applications;
- Cognitive DTs and human DTs;
- Human-in-the-loop service design;
- User experience studies;
- Al-driven decision-making;
- Case studies in manufacturing and service systems.

Guest Editors

Dr. Bufan Liu

Dr. Kendrik Yan Hong Lim

Dr. Ziqing Xia

Dr. Meng-Hsueh Hsieh

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Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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About the Journal

Message from the Editor-in-Chief

Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.8 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).

