

Special Section on:

Artificial Intelligence and Low-code Technology for Customized Manufacturing Systems

Theme: Digital transformation is at the core of developments in manufacturing. The functions provided by traditional software, such as Enterprise Resource Planning and Manufacturing Execution Systems, are not sufficient to meet the fast-changing and personalized market demands. In order to effectively meet the customer expectations, industrial companies need to establish collaboration across value chains, integrate and analyze multidimensional data, as well as simplify and speed up the process of implementing solutions. Several of these challenges can be resolved with artificial intelligence (AI) and low-code development approaches. AI can enhance the capabilities of customized manufacturing systems, including market perception, demand feature extraction, information feedback and data analytics. Low-code technology encapsulates common business functions, where industrial companies can easily configure and visualize their business data and processes leading to low-cost customization of systems. Thus, AI- and low-code-based technologies will shape the future of the customized manufacturing systems.

Although some attempts have been made to explore the ways in which AI and low-code technology drive customized production, many scientific and engineering challenges exist, such as multi-source heterogeneity and privacy protection of the data, flexibility and ease of use of the models, and high-level abstraction and dynamic reuse of services. This special issue solicits high-quality papers illustrating cutting-edge theories, models, and applications of customized manufacturing that are supported by AI and low-code technology. The topics of interest to the special issue include:

- ✓ AI- and low-code-based techniques, solutions, and applications for customized manufacturing
- ✓ AI and low-code technology for system integration, data analysis, process optimization, and intelligent decision-making in customized manufacturing systems
- ✓ Multi-source and cross-media heterogeneous database construction in customized manufacturing systems
- ✓ AI-based security, integrity and privacy solutions for customized manufacturing systems
- ✓ AI-assisted low-code program construction for customized manufacturing systems
- ✓ Solutions of business decoupling and process management when applying AI and low-code technology in customized manufacturing systems
- ✓ Low-code application AI frameworks in customized manufacturing systems
- ✓ Low-code program development for edge intelligence in customized manufacturing systems
- ✓ Adaptive theory and framework of low-code technology for customized manufacturing
- ✓ Industrial customization applications of AI and low-code technology

Manuscript Preparation and Submission

Check carefully the style of the journal described in the guidelines “Information for Authors” in the IEEE- IES website: <http://www.ieee-ies.org/pubs/jestie>. Please submit your manuscript in electronic form through: <https://mc.manuscriptcentral.com/jestie-ieee/>.

On the submitting page, in pop-up menu of manuscript type, select: “**SS on Artificial Intelligence and Low-code Technology for Customized Manufacturing Systems**”, then upload all your manuscript files following the instructions.

Corresponding Guest Editor

Prof. Jiafu Wan
South China University of Technology, China
Email: mejwan@scut.edu.cn

Guest Editor

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Loughborough University, UK
Email: y.zhang@lboro.ac.uk

Guest Editor

Prof. Andrew Kusiak
The University of Iowa, USA
Email: andrew-kusiak@uiowa.edu

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