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**Special Issue on Smart Coordination for Logistics Operational Control in Manufacturing**  
**under the Evolution Trend of Digital Economy**

Logistics operations are a critical component of manufacturing systems. As the digital economy evolves, advances in automation technologies offer new opportunities to strengthen the collaborative material, production, and information flows. In such an interconnected digital environment, automation can enhance logistics operations to become more flexible, adaptable, and scalable, and a vast amount of industrial data can be exploited, analyzed, and utilized to build smarter manufacturing systems.

However, there are still several challenges when coordinating logistics operations in modern manufacturing systems. First, traditional logistics operations are optimized for high-volume, low-variety production modes, while the increasing demand for customized products and small-batch production requires automation in logistics operations to be more flexible and adaptable. Moreover, traditional logistics operations are often characterized by a lack of real-time coordination and synchronization between material, production, and information flows, which can further exacerbate these challenges. Last but not least, effectively processing and learning from the huge amount of industrial data can be facilitated through the implementation of automation technologies, which has the expectation to significantly enhance the capability of logistics operation control.

To address these challenges and expectations, this Special Issue aims to present emerging and smart coordination technologies for manufacturing logistics operations. Topics of interest include, but are not limited to:

- Coordination of material handling in manufacturing
- Cooperative operations of logistics and manufacturing automation
- Multi-robot logistics planning in manufacturing
- Real-time coordination of material, production, and information flows
- Digital twins for logistics automation
- Machine learning for optimizing logistics operations in manufacturing
- Collaborative operational planning for intermodal transport
- Cyber-physical systems for logistics automation
- Big data-driven smart coordination for logistics operational control

**Important Dates**

- Paper submission deadline: Jan. 1, 2024
- Completion of the first-round review: March. 30, 2024
- Completion of the second-round review: May. 30, 2024
- Final submission due: July. 30, 2024
- Tentative publication date: Oct. 30, 2024

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### **Paper Submission**

All papers are to be submitted through the IEEE's Manuscript Central for Transactions on Automation Science and Engineering <http://mc.manuscriptcentral.com/t-ase>. Please select the Manuscript Category "Smart Coordination for Logistics Operational Control in Manufacturing under the Evolution Trend of Digital Economy-Based Special Issue" under "Type" in Step 1 and this specific Special Issue in Step 6 of your article's submission process. **All manuscripts must be prepared according to the IEEE Transactions on Automation Science and Engineering publication guidelines** (<http://www.ieee-ras.org/publications/t-ase>). Please address inquiries to [liwf@whut.edu.cn](mailto:liwf@whut.edu.cn).