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Special Issue on Cybersecurity in Manufacturing

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ASME Journal of Computing and Information Science in Engineering

Special Issue on Cybersecurity in Manufacturing

The manufacturing industry is undergoing drastic digital transformations and revolutions in the Industrial Internet of Things (IIoT). Thanks to new automation, communication, and computation technologies, modern manufacturing systems are becoming smarter, more capable, more flexible, and more connected. However, the introduction of these new technologies also induces new vulnerabilities and exposes manufacturing systems to a variety of cyber and cyber-physical attacks. This poses an urgent need to develop effective attack prevention, detection, and mitigation techniques that are specifically tailored for manufacturing systems.

This Special Issue is focused on novel methodologies, techniques, applications, and investigations for securing modern manufacturing enterprises. Some of the topics in this Special Issue are as follows, but they do not represent an exhaustive list. Please feel free to contact the Guest Editors to ensure that your submission is appropriate for this Special Issue.

 Topic Areas

- Attack detection and process/product authentication for manufacturing
- Data security, privacy, and intellectual property (IP) protection for manufacturing
- Digital twin security for manufacturing
- Legal and policy aspects of manufacturing security
- Manufacturing IoT and IIoT cybersecurity and privacy
- Process/product/system design for cybersecurity
- Resilience and recovery of manufacturing from cyber attacks
- Secure communication protocols and blockchain for manufacturing
- Security architectures and security by design for manufacturing
- Supply chain security of materials and energy
- Threat modeling, vulnerability analysis, and risk management for manufacturing
- Trustworthy products and data for industrial control systems (ICS)

Publication Target Dates

Paper submission deadline: March 31, 2023
Review completed: September 30, 2023
Special Issue publication date: February 2024

Submission Instructions

Papers should be submitted electronically to the journal at journaltool.asme.org. If you already have an account, log in as an author to your ASME account. If you do not have an account, sign up for an account. 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 Cybersecurity in Manufacturing.

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, Professor Yan Wang, at yan.wang@me.gatech.edu, to alert him that your paper is intended for the Special Issue.

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