IEEE EMBEDDED SYSTEMS LETTERS seeks to provide a forum of quick dissemination of research results in the domain of embedded systems with a target turnaround time of no more than three months. The journal is currently published quarterly consisting of new, short and critically refereed technical papers. This special issue is about digital manufacturing that is enabled by embedded processors, cyber-physical systems (CPS) and IoT devices. The special issue covers several aspects ranging from security and privacy of digital manufacturing systems, to resilience metrics, computer-aided design innovations and reliability issues.

A new aspect of embedded and cyber-physical systems is manufacturing applications. As new technologies, such as additive manufacturing, are moving to the digital domain, embedded processors are integrated into critical parts of the process. As a result, the skills of the operators are augmented by embedded computers, and the chance of human error is minimized. Likewise, traditional manufacturing methods, such as computer numerical control (CNC) machines, are transformed into Internet of Things (IoT) nodes, enabling remote operation and control. Nevertheless, this digital transition comes with security and reliability concerns, as well as new threats unique to digital manufacturing domain. From undetectable defects in manufactured parts causing in-service failures, to reverse engineering of embedded firmware and counterfeit production. As digital manufacturing applications rely more and more on programmable processors, the potential for cyberattacks becomes a fundamental concern.

Topics include:

- Security and privacy for cyberphysical systems in digital manufacturing
- Machine learning methods for embedded digital manufacturing systems
- Signal processing and robotics for manufacturing systems
- Intrusion and anomaly detection for embedded systems in digital manufacturing
- Threat models and resilience metrics for digital manufacturing
- Encryption and authentication methods for manufacturing systems
- Security of additive manufacturing as a Cyber-physical system
- Signal processing and robotics for digital manufacturing
- Economics of cyberphysical systems in future manufacturing technologies
- Resilient cyberphysical systems for digital manufacturing with Human in the loop
- Side-channel attacks in embedded systems for digital manufacturing

Schedule:

- **Submission deadline:** September 10, 2021
- **Author notification:** October 10, 2021
- **Revised Manuscript submission:** November 10, 2021
- **Final Manuscript submission:** December 10, 2021

Manuscripts should adhere to the technical requirement for IEEE Embedded Systems Letters (IEEE ESL). To guarantee a fast review and publication process; we require a strict page limit for all papers in this journal, without any exception. This strict limit is 4 pages, and the format is required to be exactly as stated in this guideline. Submitted papers to the special issue must conform to the technical requirements of IEEE ESL. They should be original and unpublished. Note that 3-minute Video Previews will be required later for accepted papers.

**Guest Editors:** Ramesh Karri (NYU), Nikhil Gupta (NYU), Nektarios Tsoutsos (UD)