

2022 IEEE International Conference on Industrial Informatics (INDIN'22)

Special Session/ Organized Session on Deterministic Communication and Computing for Advanced Industrial Systems

organized by

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Call for Papers

Recent advances in computing and communication empower industrial systems' network and intelligence transformation to realize system-wide interactions and effective collaboration. Growing applications require deterministic computing and communications, such as remote industrial control systems, autonomous vehicles, AR/VR, holoportation. These applications are expected to utilize efficient computing across deterministic networks for the time-critical and high-reliable requirements. This special session solicits state-of-art research related to the latest challenges, new technologies, and novel solutions involving deterministic communication and computing technologies to support the time-critical requirements in future advanced industrial systems. Topics of interest include, but are not limited to:

- Resource allocation and scheduling in TSN and Deterministic Networking
- Switching and queuing mechanisms in TSN and Deterministic Networking
- Time synchronization in TSN and Deterministic Networking
- Low-latency high-reliability mechanisms and algorithms in Wi-Fi, 5G, and 6G

- Deterministic compute-communication co-design
- Learning-based optimization of deterministic computing and communication
- Performance evaluation and measurement methodologies for deterministic networking systems
- Applications and testbeds for deterministic networking systems

Submissions Procedure and Deadlines: All the instructions for paper submission and deadlines are included in the conference website <https://2022.ieee-indin.org/>