IEEE Transactions on Industrial Informatics CALL FOR PAPERS



for Special Section on



In Special Section on the industrial environments in the industrial environment, mainly driven by business and societal needs towards production and the digitalization of the econowy, i.e., digitalization and interconnection of products, services, enterprises, and people. This mechatronics technology-driven approaches in traditional industrial systems. In this industrial context, industrial Cyber-Physical Systems (ICPS) combine the progress achieved by the application of large distributed computing systems on product and production system planning, engineering, and operation with the power of digital data that are produced during manufacturing processes and also the data collected by the Internet of Things such as sensors and actuators embedded into the products. All these are strong signs that a new generation of networked smart systems. In this industrial systems, is embedded into the products. All these are strong signs that a new generation of networked smart systems. Future ICPS applications are expected to be more transformative than the IT revolution of the past three decades.

This special section will focus on (but not limited to) the following topics:

•ICPS Frameworks: Industry Architectures; Industry Standards; RAMI 4.0; SGAM; Industrial IoT; Big Data Reference Models and Architectures.

• ICPS Technologies: Core ICPS Technologies; Interoperability; Connectivity OT/IT; Edge Technology; Semantics; Standard digitalized Data and Information Models; Digital Threads; IoT/IoS; Machine Learning, Cloud-Fog Computing; Smart Big Data; Block Chain; Security.

• ICPS Engineering: Engineering Methods and Tools; Lifecycle Management and Value Stream; Engineering Digital Threads; ICPS Digitalization; ICPS Virtualization and Digital Twins; HMI, Safety and ICPS Integration; Engineering Systems of ICPS; Migration of legacy industrial systems to ICPS-based digitalized eco-systems.

 ICPS Applications: Smart Manufacturing and Digital Factory; Robotics; Smart Cities; Energy / Smart Grid; Smart Living; Smart Framing; Water Management; Minerals and Mining; Oil & Gas; Intelligent Enterprise; Mobility and Smart

- Transportation; Autonomous Systems; Internet of Underwater Things; Smart Medical Systems.
- ICPS Management and Ecosystems: Innovation Management; Business based on digitalized Services; IoS and SLA;
- Innovation Ecosystems for ICPS; Industry Digitalization; Strategies & Markets in a Digital Economy, and Entrepreneurship.
- ICPS Education and Social Aspects: Educating, learning, teaching, training students, technicians and engineers for working with ICPS; Future of Work (Work 4.0); Social Aspects and the Digital Industry; ICPS Ethics.

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Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages.

Note: The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

Timetable: Deadline for manuscript submissions

Expected publication date (tentative)

May 30, 2021 February 2022

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