14th IEEE International Workshop on Factory Communication Systems

Communication in Industry

June 13-15, 2018 - Imperia, Italy

WFCS 2018

Call for Papers

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Scope
WFCS is the largest IEEE conference especially dedicated to industrial communication systems and technologies. The aim of the WFCS series is to provide a forum for researchers, developers and practitioners to review and discuss most recent trends in the area and share innovative research directions.

Focus

- **Real-time in Industrial Communication Systems and Technologies**: wired and wireless industrial networks (fieldbus networks; Industrial Ethernet networks; wireless (industrial) networks; Industrial Wireless Sensor Networks (IWSNs); hybrid wired/wireless industrial networks; Time Sensitive Networks (TSN); Time Triggered (TT) systems and protocols); modeling and specification techniques; hard and soft real-time message scheduling; multimedia support for industrial and process automation; real-time performance and analysis of network protocols and components; support for mobility; configuration tools and network management.

- **Cyber-Physical Systems (Communication meets Control):** control/communication interaction; networked control systems; Wireless Sensor Actuator Networks (WSANs); cooperative industrial systems; multi-agent industrial systems; time synchronization; localization; industry applications and case studies.

- **Networked Embedded Systems**: design and validation of embedded systems; real-time operating systems; multi/many-core systems; middleware design and implementation; real-time performance and analysis; domain-specific design and verification languages; formal methods for verification and certification; model-driven engineering.

- **Dependability and Security of Industrial Networks**: fault-tolerance; safety and certification; cyber-security; risk analysis and assessment; protection and countermeasures; industrial firewalls and intrusion detection systems (IDSs); formal description techniques and verification of industrial protocol and applications.

- **Integration in Industrial Systems**: vertical and life-cycle aspects; data-flow management; plug-and-work and self-mechanisms; interoperability; mixed criticality systems; distributed application platforms; Internet and intranet access; Internetworking; web-based setup; configuration and maintenance; cell networks; high-performance networks, telecommunication networks for geographically distributed industrial applications.

- **Communication Technologies for Industry 4.0**: self-adaption and self-organization for smart factories; self-configurable networks; new paradigms for agile network operations; Software Defined Networking (SDN); Network Function Virtualization (NFV); artificial intelligence and machine (deep) learning; architectures for big data management; industrial cloud computing; Industrial Internet of Things (IIoT)/Industrial Internet of Services (IIoS); Service-Oriented Architectures (SoA); support for m2m and human-machine interaction; reports from experimental testbeds and deployment.

- **Green Communication in Industry**: energy-efficient, resource-saving and environment-friendly networking; energy-saving and energy-harvesting techniques; green design.

- **Recent advances in research domains with similar communication requirements**: smart grid communications; smart home and building automation networks; automotive and train-control networks; automated guided vehicles (AGV) and Intelligent Transportation Systems (ITSs); Wireless Health Care (WHC).

Types of submissions: WFCS 2018 invites two types of submissions: Regular Papers - from 8 to 10 double-column pages and Work-in-Progress Papers (WiP) limited to 4 double-column pages. For further details, please consult the conference web pages.

Submission of papers: manuscripts must be submitted electronically in PDF format, according to the instructions available on the conference web site. Contributions must contain original unpublished work. Papers that have been concurrently submitted to other conferences or journals (double submissions) will be automatically rejected.

Paper acceptance: each accepted paper must be presented at the conference by one of the authors. The final camera-ready manuscript must be accompanied by a registration form and a registration fee payment proof. All conference attendees, including authors and session chairpersons, must pay the conference registration fee, and their travel expenses.

Post-conference publication: Authors of a number of selected papers will be invited to submit extensions of their WFCS 2018 contributions for possible publication in an IEEE transactions journal.

Contacts and information: email: wfcs2018@ieiit.cnr.it; tel. +39 011 090 5425.

Author's Schedule:

Regular Papers:
Extended submission deadline: **March 11, 2018**
Notification for acceptance: April 4, 2018
Deadline for final manuscript: April 30, 2018
Conference: June 13 – 15, 2018

WiP papers:
Extended submission deadline: **April 15, 2018**
Notification for acceptance: April 30, 2018
Deadline for final manuscript: May 10, 2018
Conference: June 13 – 15, 2018

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Further information: http://wfcs2018.ieiit.cnr.it/   Follow us on @wfcs2018