

CALL FOR PAPERS



IEEE Transactions on Industrial Informatics

Special Section on:

“Industrial Communication Systems”



Special Section Guest Editors

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Background: Industrial Communication Systems are increasingly deployed in many different fields of applications such as, for example, factory automation, motion control, process automation, networked control systems, building automation, automotive systems, etc.

Fieldbuses have been the networks traditionally employed in these applications. However, in the last years real-time Ethernet (RTE) networks have begun to be profitably adopted as well, thanks to their impressive performance figures. Moreover, wireless communication systems currently represent a viable solution even for industrial applications. Such a considerable availability of communication technologies provides significant benefits, since it allows the implementation of configurations even more tailored to the specific application requirements. For example, it will be possible to realize mixed configurations comprising all types of the aforementioned networks.

The goal of this Special Section on “Industrial Communication Systems” is to present some significant contributions reporting the state of the art in this field as well as addressing future research issues.

Topics are concerned with theoretical analysis, practical applications and case studies relevant to the following:

- **Communication systems for industrial applications:**
Fieldbuses; Real-Time Ethernet networks; Wireless networks; Hybrid (wired/wireless) networks.
- **Networks with technical requirements similar to those of industrial communication systems:**
Automotive networks; Building automation networks .
- **Formal description techniques for the verification, validation and test of industrial communication systems.**
- **Middleware and Vertical Integration of Industrial Communication Systems**
Web-based setup; Maintenance and configuration; Internetworking.
System design and architecture; Self-configurable systems.

Submissions to this Special Section must represent original material not submitted to, nor published in any other journal. Extended versions of papers previously published in conference proceedings, digests or preprints may be eligible for consideration, provided that the authors inform the Special Section Guest Editors at the time of submission.

Results obtained by simulations must be validated in bounds by experiments and/or analytical results.

Manuscript preparation and submission: Follow the guidelines in “Information for Authors” in <http://iee-ies.org/tii/> and the “General Publication Policies” document (<http://iee-ies.org/tii/GenPublPolicies.shtml>), which outlines the publication requirements: substantial novelty, technical correctness, and proper validation of the results.

Submit using Manuscript Central only
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Paper submission deadline: October 31, 2009

Expected publication date: November 2010 (tentative)

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