

Special Issue on “Industrial Applications of Distributed Intelligent Systems”**Scope**

Industrial systems in the manufacturing, power and energy and the logistics sectors are becoming more complex. Actuators, sensors and control devices from different vendors have to work together, sometimes in heterogeneous communication environments. Recent trends in research and development indicate that these devices are becoming increasingly intelligent so that they can perform tasks autonomously, and are usually equipped with computing resources. In order to master the complexity of such highly interconnected and collaborative devices that can be considered as “Distributed Intelligent Systems,” advanced methods and concepts encompassing their life cycle of planning/engineering, operation, and reconfiguration/adaptation are needed.

This special issue focuses on recent research results, trends, and practical developments of distributed intelligent systems in industrial systems that accomplish advanced tasks in manufacturing, power and energy, and logistics.

Topics to be considered in this special issue include but are not limited to the following:

- Collaborative systems
- High-level control concepts (e.g., multi-agent and holonic systems, service-oriented architectures)
- Low-level control concepts (e.g., IEC 61131-3 and IEC 61499-based control)
- Advanced system engineering concepts (e.g., model-driven development, component-based design)
- Execution concepts
- Simulation, test and validation concepts
- Improved reconfiguration and reusability methods
- Application development practices and experiences
- Standardisation issues
- Future trends

Schedule

Deadline for submissions: *August 31, 2012*
Notification of initial reviews: *December 31, 2012*
Revised submissions due: *February 28, 2013*
Notification of final reviews: *April 30, 2013*
Final manuscripts due: *May 31, 2013*
Expected publication: *2013*

Submission Details

All manuscripts must be submitted electronically to the IEEE SMCC Submission System at <http://mc.manuscriptcentral.com/smca-ieee>. Authors should include the following text in a cover letter to the Editor-in-Chief: “This manuscript is submitted for the Special Issue on Industrial Applications of Distributed Intelligent Systems (editors: Thomas Strasser, Alois Zoitl, William A. Gruver)”. For detailed submission information, refer to Information for Authors at <http://www.ieee-smc.org/publications/index.html>.

Guest Editors

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| Thomas Strasser | Alois Zoitl | William A. Gruver |
| Energy Department | Automation and Control Institute | School of Engineering Science |
| Electric Energy Systems | | Simon Fraser University |
| AIT Austrian Institute of Techn. | Vienna University of Technology | Canada |
| Austria | Austria | w.gruver@ieee.org |
| thomas.i.strasser@ieee.org | zoitl@acin.tuwien.ac.at | |

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