

CALL FOR PAPERS

Special Session on Industrial Agents

to be held in the frame of
IECON 2013 - The 39th Annual Conference of the IEEE Industrial Electronics Society
10th -13th of November 2013, Austria Center, Vienna, Austria



TOPIC OF THE SPECIAL SESSION

The prevalence of IT and cyber-physical systems in all aspects of life, is currently imposing very strong requirements, demanding personalized/customized products and solutions, that integrate intelligence and are able to handle tasks delegated by the owners. This implies for instance shorter delivery times and shorter life-cycles, forcing companies to adapt their processes by having flexible, reconfigurable production plants. This leads to the challenge of having systems that exhibit better re-configurability, robustness and responsiveness, and at the same time be energy-efficient.

In parallel, increasing complexity of engineering processes of production systems and production system life cycles decrease raise the problem of advanced methodologies for system engineering and start-up.

The agent technology and in its background the agent orientation is a promising approaches to address this current challenge, introducing an alternative way to design management and control systems based on the decentralization of functions over distributed autonomous and cooperative entities. Some preliminary results show that agent technology is highly promising in realizing flexible, reconfigurable and robust industrial applications in a number of application domains such as manufacturing, energy / smart grid, oil & gas, automotive, logistics, smart cities

SPECIAL SESSION ORGANISATION

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The organizers look forward to welcoming you to Vienna, Austria from 10th to 13th November 2013.

Important Dates

Regular Paper submission:	April 01, 2013
Notification of acceptance:	June 15, 2013
Final submission:	August 01, 2013



etc. just to name a few. Nevertheless, there are still open issues related to the applicability of agent technology, its benefits and challenges.

This special session intends to contribute for stimulating the discussion of ideas, concepts, techniques, technologies and projects, based on the application of distributed paradigms, namely agent orientation and agent technology, in the development of modular, reconfigurable and robust industrial systems. Particular attention may be given to the industrial applications of such systems.

Topics of interest include, but are not limited to:

- Intelligent and cooperative cyber-physical systems.
- System of systems and complex systems engineering.
- Concepts, visions and roadmaps for industrial agents.
- Agent in field control.
- Engineering methodologies, techniques and technologies and the changes caused by them within traditional engineering processes.
- Self-* properties in application domains e.g. factory automation, smart grid, etc.
- Standardization and best practices in industrial settings.
- Integration with emerging Internet (fixed & mobile) technologies.
- Lessons Learned from real-world use-cases.
- Infrastructures, Services and Testbeds for Industrial Agents.
- Impact of agent orientation on tooling.
- Economic and market analysis of Industrial Agents and their impact.

SUBMISSION OF PAPERS

The working language of the conference is English. Submit the full paper as PDF following the IEEE layout requirements by using the templates given at the conference web page. Accepted and presented papers will be published in an IEEE Proceedings volume and will be sent to IEEE Xplore. In addition, selected authors are encouraged to submit their papers for publication in the IEEE Transactions on Industrial Electronics or in the IEEE Transactions on Industrial Informatics.

THE CONFERENCE

IECON 2013 is the 39th Annual Conference of the IEEE Industrial Electronics Society, focusing on industrial and manufacturing theory and applications of electronics, controls, communications, instrumentation and computational intelligence. The objectives of the conference are to provide high quality research and professional interactions for the advancement of science, technology, and fellowship.

Papers with new research results are encouraged for submission. IECON 2013

will be held concurrently with the 7th IEEE International Conference on E-Learning in Industrial Electronics (ICE-LIE 2013). Participation in any of these events just requires a single conference registration fee. The world's industry, research, and academia are cordially invited to participate in the wealth of presentations, tutorials, special sessions and social activities, and furthermore, enjoy beautiful Vienna.