

**Special session on
“Advanced Software Engineering in Industrial Automation”
INCOM2009**

Code of session:

June 3-5, 2009, Moscow, Russia

<http://incom09.org/>

<http://ifac.papercept.net/>

Session Chairs:

- *Victor Dubinin, University of Penza, Russia, victor_n_dubinin@yahoo.com*
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- *Valeriy Vyatkin, University of Auckland, New Zealand, v.vyatkin@auckland.ac.nz*
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The aim of this session is to present new approaches and methods for the design of automation systems software which follow the latest trends from the software engineering domain. Software becomes the most complex, expensive, error-prone and inflexible part of industrial systems and trends are observed at all layers of enterprise IT, from the factory floor, up to the business logic and management support.

Advanced software engineering solutions have a great impact on the efficiency of automation systems design. In particular, the session will be focusing on (but not limited to) the following topics:

- New programming languages and tools
- Visual programming
- Artificial intelligence methods in languages
- Model-based engineering
- Equivalent code transformations, Refactoring
- Extreme programming
- Quality assurance methods: testing, simulation, formal verification
- Automatic code synthesis
- Execution semantics of automation software
- Latest developments of standards (IEC 61131-3, IEC 61499)

Submission

Submitted papers (6 pages in IFAC double column format) will be reviewed by at least two referees, see submission site <http://ifac.papercept.net/>. Both academic and industrial oriented communications will be considered. All papers accepted for presentation will appear in the Preprints and will be distributed to the participants. Papers duly presented at the Symposium will be archived in the form of Proceedings published at IFAC-PapersOnline.net by Elsevier. Further submission instructions are available on the IFAC website www.ifac-control.org. Several international journals are associated with the symposium for publication of special issues.

For a submission to this session, please use “invited paper” option of the system <http://ifac.papercept.net/>, and then assign your paper (as invited paper) to the session *Advanced Software Engineering in Industrial Automation* (the code is **6pEC9**).

Important dates:

November 15, 2008: deadline for paper submission
January 26, 2009: notification of acceptance/reject
March 15, 2009: deadline for final paper.