



**13th IFAC SYMPOSIUM on
INFORMATION CONTROL
PROBLEMS IN MANUFACTURING
Moscow, 3-5 June 2009**

CALL for papers Invited Session

**Requirements, Techniques and Opportunities for
Engineering and Verification of Enterprise Information
Systems**

Organisers

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Session outline

The enterprise information systems engineering process aims to develop information systems to respond to increasingly complex objectives, to align these information systems with business goals and processes of the company, or simply to adapt and improve them when facing new requirements or opportunities.

First, this process requires sharing and mutual understanding of the needs of each stakeholder i.e. each persons involved or affected by the future information system at each stage of its development and exploitation. This induces to take into account and to assume that functional and non functional requirements (performance, safety, security, constraints ...) are fulfilled. For that, formal approaches may be used.

Second, this process follows the principles of the Model Driven Approach (MDA) which highlights the need for models to facilitate this work, at various abstraction levels ranging from specification to implementation and exploitation on site. These models can represent and handle various artefacts resulting from the activity of each stakeholder: control, decision making process, production, development, innovation and so on. They are therefore a reflection of special purposes, recommendations from references to standards or simply good practices, and finally working hypotheses reflecting objectives or different (possibly inconsistent) viewpoints.

So, it is necessary to provide or to adapt, all along the development process, a set of as formal as possible mechanisms, techniques and tool allowing to help actors involved into this process to assess and ensure:

- The **requirements** are fulfilled all along the information system life cycle.
- The models are **coherent**, if possible **complete** and **consistent** and lastly **relevant**, from a process step to another one, from a view point to another one.

The resulting system may be then qualified for stakeholder usages. The used techniques, concepts or tools should be as formal, as efficient and as independent from any viewpoint or development phase as possible. Indeed, formal verification techniques and validation

techniques provides us a set of tools which can be used in this domain in order to gain *model quality* whatever may be the objective or the aspect covered by this model: incremental development aspects, security aspects, safety aspects, alignment, performance study and evaluation, decision making process support ...

This session intent to present efficient techniques and current research works aiming to improve the information system engineering process by integrating suitable verification and validation techniques.

The session welcomes papers on verification requirements, existing techniques, works in progress, demonstrators ...

Submission

Submitted papers (6 pages in IFAC double column format) will be reviewed by at least two referees. Both academic and industrial oriented communications will be considered. Accepted contributions will be published in INCOM Proceedings 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.

Important dates

Deadline for paper submission: November 15, 2008

Notification of acceptance/reject: January 6, 2009

Deadline for final paper: March 15, 2009