
Invitation to the Special Session on

The IEC 61499 Function Block Model in Factory Automation

12th IEEE International Conference on Emerging Technologies and
Factory Automation; September 25-28, 2007, Patras, Greece

Conference web site: <http://www.etfa2007.org/>

Technical outline of the session / Topics of the special session

Today's rapidly changing market requirements impose the need of improving the agility of manufacturing systems. The International Electro-technical Commission (IEC) in order to improve productivity in terms of re-use, reliability, flexibility and interoperability has defined the IEC 61499 function block (FB) model. The proposed model attempts to reduce engineering cost and system implementation time as well as to increase the reliability and maintainability of the whole system through the simplified migration from existing systems and adoption of current software engineering technologies.

The interest from academia and industry for this model that has recently been accepted as IEC 61499 standard, is growing last years and a lot of approaches that utilize the model are in evolution (see the [report](#) of the 1st in the world Special Session on the IEC61499 during ETFA 06, that was very successful). The focus of this 2nd special session is again on the FB model and its use in factory automation. Theoretical issues related to the specification as well as its use in practice will be presented and discussed.

This special session aims to provide a significant insight into the FB model's specification and its ability to support the whole development process of distributed control applications. Papers covering theoretical issues regarding the FB model as well as its application in control and automation are welcome. More specifically **topics** include but are not limited to the following:

- System architectures, development methodologies, design alternatives,
- Verification of FB models
- FB allocation & execution scheduling
- Extensions and modifications to the IEC model
- Integration of FB with UML
- Support for reconfigurability and real time constraints
- Engineering support Systems
- FB implementation environments,
- Experimental developments, real-world examples, experience reports,
- Industrial acceptance.

AUTHOR'S SCHEDULE

Authors should contact the Special Session Organizers, as soon as possible

Deadline for submission:	April 20, 2007
Notification of papers acceptance:	May 25, 2007
Final manuscripts due:	July 1, 2007

SUBMISSION OF PAPERS

Papers are to be submitted electronically. For further details, please consult the conference web pages.

SESSION ORGANIZERS

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