FIRST ANNOUNCEMENT & CALL FOR PAPERS

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ETFA 2006
11th IEEE International Conference on
Emerging Technologies and Factory Automation

ETFA 2006

September 20 – 22, 2006   •   Diplomat Hotel Prague   •   Czech Republic

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http://www.action-m.com/etfa2006

Aim: The aim of the conference is to bring together researchers and practitioners from the industry and academia and provide them with a platform to report on recent advances and developments in the newly emerging areas of technology, as well as actual and potential applications to industrial and factory automation.

Solicited Papers: Research papers reporting on new developments in technological sciences. Industry and development papers reporting on actual developments of technology, products, systems and solutions. Tutorial and survey papers. Work-in-progress papers. In addition, ETFA 2006 solicits special session proposals to stimulate in-depth discussions in special areas relevant to the conference theme. Please consult the conference web page for more details.

TOPICS WITHIN THE SCOPE OF THE WORKSHOP INCLUDE:
Information Technology in Automation: Development Platforms and Frameworks: .NET, J2EE; Programming languages: Java, C#, etc.; Operating Systems; Databases and Web Interfaces; Mobile Computing, Network Computing, Client/Server Computing; Distributed Objects and Components: CORBA, COM, COM+, DCOM, etc.; Groupware.

Industrial Communication Systems: Real-time Communication and Applications; Dependability aspects: Safety / Security; Middleware for Industrial Communication Systems; Vertical Integration aspects: webbased setup, maintenance and configuration; Internetworking; Formal Description Techniques; Fieldbus Networks; Cell Networks; High Speed Networks; Wireless Networks; Intranet and Internet Access; Factory Applications and Case Studies.

Real-Time and (Networked) Embedded Systems: Design and Implementation; Environments and Tools; Models of Computation and Formal Methods; Hw/Sw Co-Design; IP Cores and Platforms; System on Chip; Network Embedded Systems Technology; Real-Time Executives and Operating Systems; Languages; Case studies.

Intelligent Sensors and Sensor Networks: Design and Implementation; Development Environments and Tools; Energy Control; Hardware/Software; Data Integration and Fusion; Algorithms; Wireless Integrated Networked Sensors; Wideband Networked Sensors; MEMS Sensors; System Architecture; Power Supplies; Communication Modes; Case Studies.

Automated Manufacturing Systems and Enterprise Integration: Architectures and Operations: FMS, CIM, IMS, ADS, MES, ERP, SCM, CAD/CAE/CAM, Scheduling, Reliability, Human Factors, Simulation, Queuing Networks, Perturbation Analysis, Concurrent Engineering, Rapid Prototyping, Data base technologies, Data Mining, Data Warehouses.

Continuous Automation Systems: Continuous Manufacturing; Industrial Automation; Process Automation; Virtual Reality and Telesensation; Multimedia; Prototyping; Rapid Prototyping; Advanced control: intelligent control, adaptive and optimal control, robust control, computational advances in industrial process control; Model based predictive control; Failure detection, diagnosis, and appropriate control strategies; Integrated control and supervision; Synergy of different control strategies.

Distributed Intelligent Control for Flexible Manufacturing: Modular and incremental approaches for formal modelling of manufacturing and process systems; Synthesis methods for flexible logic control; New applications of discrete event simulation; Supervisory control; Batch Process Control; Integration of different aspects of automation, and control, supervision, human operation, diagnostics, visualization, etc.; Logic programming and verification of control systems; Design methodologies and design patterns for re-configurable systems; Design and implementation of distributed control systems; Recent developments in standardization; Test cases, benchmarks, tools; Applications and experiences in practice.

Computational Intelligence in Automation: Expert Systems, Fuzzy Systems, Neural Networks, Genetic Algorithms, Petri Nets, Chaos, Artificial Intelligence and Expert Systems, Industrial Applications of Intelligent Systems.

Intelligent Robots & Systems: Machine Vision and Intelligence, Actuators and Motion Control, Multisensor Fusion and Integration, Intelligent Robots and Systems.

Emerging Issues: Recent advances in fields not covered by the tracks listed above which might nevertheless be interesting for the conference; new trends, new technologies, new application domains (e.g., Automotive, X-by-Wire Technologies, Building Automation, Traffic Control, Security and Survivability, etc.).

Conference Format: The conference will comprise multi-track sessions for regular papers, to present significant and novel research results with a prospect for a tangible impact on the research area and potential implementations; work-in-progress (WIP) sessions; panel discussions on the state-of-the-art and emerging trends, involving leading experts from industry and academia; and public discussion sessions moderated by leading experts in the field of industrial automation systems.

Submission of Papers: The working language of the conference is English. Two types of submissions are solicited. Long Papers – limited to 8 double column pages in a font no smaller than 10-points. Work-in-Progress and Industry practice – limited to 4 double column pages in a font no smaller than 10-points. Manuscripts must be submitted electronically in PDF format, according to the instructions contained in the Conference web site.

Best Paper Award: Best paper awards in Factory Automation and Emerging Technologies will be presented at the conference dinner. Authors of outstanding papers will be invited to submit a revised version of their papers for publication in a special section in IEEE Transactions on Industrial Informatics.

Paper Acceptance: Each accepted paper must be presented at the conference by one of the authors. The final manuscript must be accompanied by a registration form and a registration fee payment proof. All conference attendees, including authors and session chairpersons, must pay the conference registration fee, and their travel expenses.

IMPORTANT DEADLINES:
Deadline for submission of long papers:	**March 31, 2006**
Notification of acceptance of long papers:	**May 25, 2006**
Deadline for submission of work-in-progress papers Cand Industry practice:	**June 1, 2006**
Notification of acceptance of work-in-progress papers and Industry practice:	**July 1, 2006**
Deadline for submission of final manuscripts:	**July 1, 2006**
Early registration at reduced fee:	**July 20, 2006**
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