



## CALL FOR PAPERS

### **International Conference on Agility at the Helsinki University of Technology July 27–28, 2005**

Agility, as a desirable strategic feature of industrial enterprises, was introduced by the Iacocca Institute at Lehigh University in the 1990's. The main topic at that time was Agile Manufacturing. This involved techniques such as Virtual Enterprises, Lean Manufacturing, Flexible Manufacturing, and Rapid Prototyping.

Because agility is defined as the ability of a system to adapt itself to rapid and unexpected changes, the concept soon was applied to fields beyond manufacturing. The entire production process, starting from the customer order, and passing through product development, procurement, manufacturing, supply chain management, delivery and services, should be agile in order to be competitive. Also, for the software development industries, process industries and services industries, agility either is or will be essential. Agility covers both technical and managerial aspects.

The Conference on Agility is sponsored by the International Society of Agile Manufacturing (ISAM) (<http://www.isamjournals.org/>) together with the Helsinki University of Technology. The International Scientific Committee is concerned with the program and with the quality of the papers to be presented. The Local Organizing Committee will take care of all practical arrangements.

#### **The Conference on Agility welcomes original papers from the following topics:**

##### **•Agile Manufacturing**

Supply Chain Agility \* Manufacturing Agility \* The Agile Production System \* Managing System-wide Change \* Integrated Work Process Redesign \* Implementing Technology to Enhance Agility \* Strategic Direction \* Performance Measures \* Managing in the Agile Organization \* A 21st Century Paradigm \* Agile Manufacturing and Change Management \* Agile Manufacturing Enterprise Design \* Interdisciplinary Design \* Issues, Problems and Future Developments \* Integrating Technology, Organization and People \* Agile Customer-Supplier Relations \* Mass Customization: The New Imperative in Business \* Developing Mass Customized Products \* Agile Product Development for Mass Customization \* Designing Mass Customized Products \* Virtual Manufacturing/Augmented Reality \* Agile Manufacturing Facility \* Synchronous Flow/Agile Manufacturing \* Virtual Design Environment: A Web-based Assessment Tool \* Agile Manufacturing Information Systems \* Agile Practices \* Agile Processes \* Agile Enabling Technologies

### •Advanced Manufacturing Systems

World Class Manufacturing \* Next Generation Manufacturing \* Innovative Processes Micro-manufacturing \* Intelligent Sensors and Controls \* Robotics \* Intelligent Control, Flexible and Agile Assembly in Manufacturing Systems \* Internet-aided Design \* Virtual Environment and Systems \* Nontraditional Computing \* Embedded and Ubiquitous Computing \* Soft Computing in Engineering Design and Manufacturing \* Evolutionary Computing, Neural Network \* Fuzzy Logic \* Genetic Algorithms \* Decision Support Constraints and Optimization \* Best Practices \* Flexible Manufacturing Systems

### •Concurrent Engineering

Collaborative Decision Making \* Planning and Scheduling \* Product and Process Integration \* Organization and Management \* Information and Process Modeling \* Networking and Distribution \* Reasoning and Negotiation \* Concurrent Engineering Framework \* Data Exchange Process \* Practical Applications \* Design Automation \* Design Theory and Methodology \* Rapid Prototyping

### •Integrated Product and Process Development

Product Development into the 21st Century \* Integrated Product & Process Design and Development Team Method \* Product Cost Analysis \* Product Functional Requirements and Decomposition \* Translating Customer Requirements into Products \* Product Conception and Embodiments \* Design for Assembly and Disassembly \* Material Selection \* Manufacturing Process and Design \* Product and Process Improvement

### •Supply Chain Management

Coordination and Collaboration of Supply Chain Networks \* Logistics and Supply Chain Networks \* Global Supply Chain Strategies \* Flexible Supply Chain Networks \* Warehousing and Distribution \* Materials Handling \* Supply Chain Planning and Inventory Management \* Order Distribution and Logistics \* Forecasting and Planning \* Collaborative Planning Replenishment and Forecasting (CPFR) \* Supply Chain Intelligence and Data Mining \* Identity-based Supply Chain Management and RFID \* E-commerce Supply Management \* Transportation and Logistics Issues \* Transport Planning and Management \* Supply Chain Performance and Integration Issues \* Finance Issues for the Supply Chain \* Logistics Metrics \* Performance Measurement for Integrated Supply Chain Management \* Modeling and Simulation in Logistics and Supply Chain Network Design \* Workflow Management for Supply Chains of Services \* Multi-criteria Optimization Approach in Supply Chains \* Procurement and Purchasing \* Supplier Selection \* Innovations in Outsourcing \* Reverse Logistics

### •Agile Software Development

Agile Software Development Approaches and Methodologies \* Agile Testing and Quality Assurance \* Requirements Management in Agile Development \* Agile Development for Safety-critical Systems \* Industrial Experiences in Agile Software Development \* Experiments and Quasi-experiments \* Software Architecture in Agile Development \* Scaling up Agile Methodologies \* Benefits of Agile Development \* Transitioning from Traditional to Agile Development \* Agile Software Product Development

### Review Procedure

Scientific papers will undergo a review process before being finally accepted. In addition, papers of a more practical content are welcome, such as case studies and descriptions, experiences with agile systems, etc.

### Proceedings

Preconference Proceedings will be published as an ISBN-numbered book with accompanying CD by a Publisher, and will be printed before the conference to be distributed to the attendants.

### **Invitation for Paper Submission**

We are looking for speakers/participants from government, academia and industry for this conference. Please send first the title and an extended abstract of your presentation, as well as your address, telephone number, fax, and e-mail to the Conference General Chairman.

The abstracts are of free form, but the final papers should be prepared according to the guidelines of <http://ijam.isamjournals.org/instructions.htm>. Selected papers of this conference will be published in the *International Journal of Agile Manufacturing (IJAM)* or the *International Journal of Advanced Manufacturing Systems (IJAMS)*.

### **Important Dates:**

- Submission of extended abstract: 10th December, 2004
- Notification of abstract relevance: 20th December, 2004
- Submission of full paper for review: 1st February, 2005
- Notification of acceptance for authors and reviewers' comments: 1st April, 2005
- Receive final manuscript: 1st June, 2005
- The Conference on Agility in Helsinki: 27-28th July, 2005

### **Invitation for Special Sessions**

Active researchers are invited to organize sessions as part of the main conference. Each session should have five quality papers. If you are interested in organizing a session and wish to chair or co-chair sessions, please contact the Conference General Chairman.

### **Conference Honorary Chairman**

Suren N. Dwivedi, Endowed Chair Professor, University of Louisiana at Lafayette,  
and Past President of the International Society of Agile Manufacturing

### **Conference General Chairman**

Hans Andersin, Professor, Helsinki University of Technology,  
President of the International Society of Agile Manufacturing,  
P.O. Box 9210, FI-02015 HUT, Finland  
e-mail: [hans.andersin@hut.fi](mailto:hans.andersin@hut.fi)  
Telephone: +358 9 451 3315; Fax: +358 9 451 4889

### **Language**

The official language of the Conference is English (no simultaneous translation).

### **Conference Site**

The conference will be held in the new Industrial Engineering building at the Campus Otaniemi of the Helsinki University of Technology, 11 km from the center of Helsinki. Accommodation is available near the campus area. Lunches and coffee will be served in the conference building.

### **Registration**

Information about registration, hotel reservation, tours, etc. will be available early next year at the ISAM web site <http://www.isamjournals.org/>. The registration fee is 475 euro per person for 2 days. Nonparticipating persons pay a reduced fee covering the banquet only. The full conference fee includes the preconference proceedings, coffee breaks, 2 lunches and the Conference Banquet. Tours, accommodations, etc. must be financed separately. A Conference Banquet will be arranged at the end of the first conference day. Before and after the conference, participants will be offered sightseeing tours in Helsinki and surroundings and a one-day boat-trip to the medieval city Tallinn, capital of Estonia. Keep in mind that at the end of July Helsinki is at its best! Plan to be there, not only for an enriching professional experience, but also for fun.

## **International Scientific Committee (as of 9/27/2004)**

**Chairman:** Eero Eloranta, Professor, Industrial Engineering and Management, Helsinki University of Technology, Finland, [eero.eloranta@hut.fi](mailto:eero.eloranta@hut.fi)

Pekka Abrahamsson, Senior Scientist, VTT Electronics, Finland, [Pekka.Abrahamsson@vtt.fi](mailto:Pekka.Abrahamsson@vtt.fi)

Ahmed Al-Ashaab [A.Al-ashaab2@wlv.ac.uk](mailto:A.Al-ashaab2@wlv.ac.uk)

Ali Allahverdi, Professor, Department of Industrial and Management Systems Engineering, College of Engineering and Petroleum, Kuwait University, Kuwait, [allahverdi@kuc02.kuniv.edu.kw](mailto:allahverdi@kuc02.kuniv.edu.kw)

Dr. Subra Arunachalam, School of Computing and Technology, University of East London, UK, [S.Arunachalam@uel.ac.uk](mailto:S.Arunachalam@uel.ac.uk)

Dr. Emin Aydin , London South Bank University, UK, [aydinme@lsbu.ac.uk](mailto:aydinme@lsbu.ac.uk)

Dr. Adil Baykasoglu, Associate Professor of Industrial Engineering, University of Gaziantep, Turkey, [baykasoglu@gantep.edu.tr](mailto:baykasoglu@gantep.edu.tr)

Dr. Gulcin Buyukozkan, IGalatasaray University, Turkey, [gbuyukozkan@gsu.edu.tr](mailto:gbuyukozkan@gsu.edu.tr)

Emmanuel Caillaud, Professor, IPST/Université Louis Pasteur Strasbourg, France, [emmanuel.caillaud@ipst-ulp.u-strasbg.fr](mailto:emmanuel.caillaud@ipst-ulp.u-strasbg.fr)

Kai Cheng, Professor, Manufacturing Engineering, Director of the Advanced Manufacturing Technology Research Group, Leeds Metropolitan University, UK, [K.Cheng@leedsmet.ac.uk](mailto:K.Cheng@leedsmet.ac.uk)

Walter Chung, Professor, Hong Kong Polytechnic University, Hong Kong, [Walter.Chung@inet.polyu.edu.hk](mailto:Walter.Chung@inet.polyu.edu.hk)

Dr. Alistair Cockburn, President, Humans and Technology, Salt Lake City , USA, [acockburn@aol.com](mailto:acockburn@aol.com)

Türkay Dereli, Associate Professor of Industrial Engineering, University of Gaziantep, Turkey, [dereli@gantep.edu.tr](mailto:dereli@gantep.edu.tr)

Alexandre Dolgui, Professor, Director of Division "Industrial Engineering and Computer Sciences, Ecole des Mines de Saint Etienne, France, [dolgui@emse.fr](mailto:dolgui@emse.fr)

Dr. Heidi Dreyer, Norwegian University of Science and Technology, Department of Production and Quality Engineering, Norway, [heidi.c.dreyer@sintef.no](mailto:heidi.c.dreyer@sintef.no)

Dr. Jerry Fuh Ying Hsi, PE, Associate Professor, Department of Mechanical Engineering National University of Singapore, Singapore, [mpefuyh@nus.edu.sg](mailto:mpefuyh@nus.edu.sg)

Shuichi Fukuda, Professor, Tokyo Metropolitan Institute of Technology, Japan, [fukuda@tmit.ac.jp](mailto:fukuda@tmit.ac.jp)

Mickael Gardoni, Assistant Professor, INPG - ENSGI - Laboratoire GILCO, Grenoble, France, [Mickael.Gardoni@gilco.inpg.fr](mailto:Mickael.Gardoni@gilco.inpg.fr)

Dr. Michele Germani, Università Politecnica delle Marche, Ancona, Italy, [m.germani@mta01.unian.it](mailto:m.germani@mta01.unian.it)

Ricardo Goncalves, UNINOVA, Campus da FCT/UNL, Caparica, Portugal, [rg@uninova.pt](mailto:rg@uninova.pt)

John Griffiths, Senior Lecturer in Supply Chain Management, University of Central England, UK, [john.griffiths@tic.ac.uk](mailto:john.griffiths@tic.ac.uk)

Robert W. Grubbström, Professor, Department of Production Economics, Linköping Institute of Technology, Sweden, [rwg@ipe.liu.se](mailto:rwg@ipe.liu.se)

Angappa Gunasekaran, Professor of Operations Management, Charlton College of Business, University of Massachusetts, [agunasekaran@UMassD.Edu](mailto:agunasekaran@UMassD.Edu)

Harri Haapasalo, Director, University of Oulu, Learning and Research Services, Finland, [harri.haapasalo@oulu.fi](mailto:harri.haapasalo@oulu.fi)

Dr. Remko van Hoek, Visiting Professor, Cranfield School of Management, UK, [vanhoekr@hotmail.com](mailto:vanhoekr@hotmail.com)

Ann Kjellberg, Docent, Royal Institute of Technology (KTH), Sweden, [ann.kjellberg@iip.kth.se](mailto:ann.kjellberg@iip.kth.se)

Torsten Kjellberg, Professor, Royal Institute of Technology (KTH), Sweden, [Torsten.Kjellberg@iip.kth.se](mailto:Torsten.Kjellberg@iip.kth.se)

John H. Kleinsmith, MPS, Cornell University, USA, [Jh33k@aol.com](mailto:Jh33k@aol.com)

Wolfgang H. Koch, Professor, Norwegian University of Science and Technology, Norway, [wolfgang.h.koch@ntnu.no](mailto:wolfgang.h.koch@ntnu.no)

Dr. Muammer Koc, University of Michigan, USA, [mkoc@umich.edu](mailto:mkoc@umich.edu)

Dr S. C. Lenny Koh, Deputy Director of MBA in EcoBusiness, University of Sheffield, UK, [S.C.L.Koh@sheffield.ac.uk](mailto:S.C.L.Koh@sheffield.ac.uk)

Casper Lassenius, Associate Professor, Software Business and Engineering, Helsinki University of Technology, Finland, [Casper.Lassenius@hut.fi](mailto:Casper.Lassenius@hut.fi)

Dr. Jos P. van Leeuwen, Associate Professor, Fac. of Architecture, Building, and Planning, Eindhoven University of Technology, Holland, J.P.v.Leeuwen@tue.nl

Bengt Lindberg, Professor, Institute of Industrial Production, Royal Institute of Technology (KTH), Sweden, [bengt@iip.kth.se](mailto:bengt@iip.kth.se)

Alan MacCormack, Associate Professor of Business Administration, Harvard Business School, USA, [amaccormack@hbs.edu](mailto:amaccormack@hbs.edu)

Dr. Shreyes N. Melkote, Associate Professor, Georgia Institute of Technology, USA,  
[shreyes.melkote@me.gatech.edu](mailto:shreyes.melkote@me.gatech.edu)

Dr. István Mezgár, Senior Research Associate, CIM Research Laboratory, Computer and Automation Research Institute, Hungarian Academy of Sciences, Hungary, [mezgar@sztaki.hu](mailto:mezgar@sztaki.hu)

Farrokh Mistree, Georgia Institute of Technology, USA, [farrokh.mistree@me.gatech.edu](mailto:farrokh.mistree@me.gatech.edu)

Bjørn Moseng, Senior Scientist, SINTEF Industrial Management, Production Engineering, Norway,  
[Bjorn.Moseng@sintef.no](mailto:Bjorn.Moseng@sintef.no)

Dr. Mohamed M. Naim, Professor, Cardiff Business School, Cardiff University, UK, [NaimMM@cf.ac.uk](mailto:NaimMM@cf.ac.uk)

Christine Nitsche, Fraunhofer-Institut für Produktionstechnik und Automatisierung IPA, Stuttgart, Germany,  
[chn@ipa.fraunhofer.de](mailto:chn@ipa.fraunhofer.de)

Jan Olhager, Professor, Department of Production Economics, Linköping Institute of Technology, Sweden,  
[jan.olhager@ipe.liu.se](mailto:jan.olhager@ipe.liu.se)

Dr. Jerry D. Parish, CSIT, Associate Dean, College of Business & Technology, Texas A&M University-Commerce, USA, [Jerry\\_Parish@TAMU-Commerce.edu](mailto:Jerry_Parish@TAMU-Commerce.edu)

Kenneth (Kenny) Preiss, Professor, The Sir Leon Bagrit Professor: Technology & Global Competitiveness, Ben Gurion University of the Negev, Israel, [preiss@bgumail.bgu.ac.il](mailto:preiss@bgumail.bgu.ac.il)

Jahangir S. Rastegar, Mechanical Engineering Department, State University of New York at Stony Brook, USA,  
[Jahangir.Rastegar@sunysb.edu](mailto:Jahangir.Rastegar@sunysb.edu)

Dr. Jens O. Riis, Professor of Industrial Management Systems, Aalborg University, Denmark, [riis@iproduct.aau.dk](mailto:riis@iproduct.aau.dk)

Asbjørn Rolstadas, Professor, Norwegian University of Science and Technology, Department of Production and Quality Engineering, Norway, [asbjorn.rolstadas@ipk.ntnu.no](mailto:asbjorn.rolstadas@ipk.ntnu.no)

Dr. Sameh Saad, School of Engineering, Sheffield Hallam University, UK, [s.saad@shu.ac.uk](mailto:s.saad@shu.ac.uk)

Dr. Weiming Shen, University of Western Ontario, Canada, [weiming.shen@nrc-cnrc.gc.ca](mailto:weiming.shen@nrc-cnrc.gc.ca)

Dr. Wilfried. Sihm, Fraunhofer-Institut fuer Produktionstechnik und Automatisierung (IPA) Stuttgart, Germany,  
[whs@ipa.fhg.de](mailto:whs@ipa.fhg.de)

Gunnar Sohlenius, Professor, Royal Institute of Technology (KTH), Sweden, [gunnar.sohlenius@iip.kth.se](mailto:gunnar.sohlenius@iip.kth.se)

Reijo Sulonen, Professor, Software Business and Engineering, Helsinki University of Technology, Finland,  
[Reijo.Sulonen@hut.fi](mailto:Reijo.Sulonen@hut.fi)

Harun Taskin, Professor, Head of Department of Industrial Engineering, Sakarya University, Turkey,  
[taskin@sakarya.edu.tr](mailto:taskin@sakarya.edu.tr)

Jukka Tuomi, Research Director, Helsinki University of Technology, Finland, [jukka.tuomi@hut.fi](mailto:jukka.tuomi@hut.fi)

Dr. Richard Turner, George Washington University in Washington, DC, USA, [Rich.Turner.CTR@osd.mil](mailto:Rich.Turner.CTR@osd.mil)

Alok K. Verma, Associate Professor, Engineering Technology Department, KH-214, Old Dominion University, Norfolk, USA, [averma@odu.edu](mailto:averma@odu.edu)

## **Local Organizing Committee**

**Chairman:** Reijo Sulonen, Professor, Software Business and Engineering, Helsinki University of Technology,  
[Reijo.Sulonen@hut.fi](mailto:Reijo.Sulonen@hut.fi)

Kalevi Aaltonen, Professor, Production Engineering, Helsinki University of Technology, [kalevi.aaltonen@hut.fi](mailto:kalevi.aaltonen@hut.fi)

Eero Eloranta, Professor, Industrial Engineering and Management, Helsinki University of Technology,  
[eero.eloranta@hut.fi](mailto:eero.eloranta@hut.fi)

Dr. Jussi Heikkilä, Chief Research Scientist, VTT, [jussi.heikkila@vtt.fi](mailto:jussi.heikkila@vtt.fi)

Dr. Jan Holmström, Industrial Engineering and Management, Helsinki University of Technology, [jholm@cc.hut.fi](mailto:jholm@cc.hut.fi)

Markku Kangas, Kangama Consulting, [markku.kangas@pp.inet.fi](mailto:markku.kangas@pp.inet.fi)

Casper Lassenius, Associate Professor, Software Business and Engineering, Helsinki University of Technology,  
[Casper.Lassenius@hut.fi](mailto:Casper.Lassenius@hut.fi)

Esko M. Niemi, Professor, Production Engineering, Tampere University of Technology, [esko.m.niemi@tut.fi](mailto:esko.m.niemi@tut.fi)

Martin Ollus, Chief Research Scientist, VTT Industrial Systems, [martin.ollus@vtt.fi](mailto:martin.ollus@vtt.fi)