APMS 2012
International Conference
Competitive Manufacturing for Innovative Products and Services
24-26 September 2012
Rodos Palace • Rhodes, Greece

FINAL PROGRAM
Welcome Note

Welcome to the IFIP WG5.7 Annual Conference, Advances in Production Management Systems, APMS 2012, being held at Rhodes, Greece, from 24 to 26 September 2012.

Since the first conference that took place in Helsinki back in 1990, APMS is one of the major events and the official conference of the IFIP Working Group 5.7 on Advances in Production Management Systems. Recently, APMS successfully took place in Washington (USA, 2005), Wroclaw (Poland, 2006), Linköping (Sweden, 2007), Espoo (Finland, 2008), Bordeaux (France, 2009), Cernobbio (Italy, 2010), and Stavanger (Norway 2011).

APMS 2012 is sponsored by the IFIP WG 5.7 and co-sponsored by the ATHENA Research & Innovation Centre and the Hellenic Maintenance Society in Greece. In an era of increased globalization and ever pressing needs for improved efficiency, the APMS 2012 theme is “Competitive Manufacturing for Innovative Products and Services”. In this setting, among the key elements of success in modern Manufacturing and Production Management are:

- **Resource efficiency**: the ability to perform in a resource efficient manner throughout the lifecycle of a production process, product use or offered services.
- **Key Enabling Technologies**: the exploitation of the latest materials, manufacturing and production control technologies to support competitive and sustainable production.
- **Networked Enterprise** and **Global Manufacturing and Supply Chains**: the ability to operate as a globally interconnected organization and perform at a global scale, both at intra and inter-organizational scale.
- **Knowledge intensity and exploitation**: the efficient use of the enterprise and human resources tangible and intangible knowledge, including efficient knowledge lifecycle management.
- **Innovation**: the ability to efficiently port R&D results into competitive new forms of production, products or services.

The APMS 2012 Conference brings together leading experts from industry, academia and governmental organizations to present and debate about the latest developments in Production Management Systems and shape up the future of Competitive Manufacturing. It comprises 7 keynote talks and 36 sessions, including a dedicated Industry Panel Session, to offer the practitioners view on linking research to industry, thus efficiently supporting the innovation process.
The keynotes bring up key issues on the:

- Business Perspective of Manufacturing Research
- Sustainable manufacturing to support a competitive industrial base in Europe
- Integration and interoperability as a key enabler of production efficiency
- Energy and resource efficiency in operations
- Governmental and non-governmental initiatives to foster greater co-operation between academia, research and industry for the Factories of the Future.

The conference sessions broadly cover the following thematic areas:

- Energy efficient manufacturing and related global research initiatives
- Sustainability in production process, products and services
- Management of international operations
- Emerging and ICT technologies in manufacturing, services, logistics and production management
- Enterprise integration and interoperability
- Mass customization, including design and supply chains for mass-customized products and services
- Supply networks and supply chain management
- Product and asset lifecycle management
- Services and service manufacturing systems
- Towards the products of the future
- Production management, operations and logistics
- Design of manufacturing systems
- Robotics in manufacturing
- Innovation and sustainability in developing countries
- Performance and risk management
- Human factors, innovation, quality and knowledge management
- Modern learning technologies in manufacturing and production management

Several special sessions are organised in the above areas and ongoing research initiatives and projects are presenting their progress and achieved results. A PhD workshop organised prior to the conference offers the opportunity to PhD researchers to present their research plans, objectives and achieved results to Scientific Discussants and gain valuable feedback to strengthen their research plan and activities.
Approximately 300 academics, researchers, practitioners and scientists from around the globe have joined the APMS 2012 conference, sharing their expertise and providing insight into what constitutes the currently best practice in Manufacturing and Production Management, while also projecting into the future of Competitive Manufacturing for Innovative Products and Services. The conference involved a high quality International Steering and a Scientific Committee of acknowledged excellence, while the review process involved in total 82 experts, all making key contributions to the Conference success.

We wish to acknowledge the support of Intelligent Manufacturing Systems – IMS as the USB Sticks & Lanyards for Badges sponsor. We particularly wish to thank the active members of the IFIP WG5.7 community for their contribution and support to the conference, their support to the papers review process and the promotion of APMS 2012 through their networks and collaborating partners. Particular thanks are due to the ATHENA Research and Innovation Centre and the Hellenic Maintenance Society in Greece for co-sponsoring and supporting the conference.

The conference is hosted in the island of Rhodes, in Greece, a world-class destination, boasting a unique mixture of ancient, modern and holiday attractions, with a continuing history of well over three millennia. According to myth, Rhodes was created by the union of Helios, the sun Titan, and the nymph Rhode. The ancient city of Rhodes hosted one of the ancient wonders of the world, the Colossus of Rhodes, the giant statute of the ancient Greek Titan, Helios. Manufacturing and production management have made giant strides and contributed significantly towards a world of smart, sustainable and inclusive growth but much more needs to be done and a global effort is needed to this end. The APMS 2012 conference constitutes a focused effort to support such aims.

We wish to thank you all for your contribution and participation in APMS 2012.

Christos Emmanouilidis
Conference Chair

Marco Taisch
Co-chair

Dimitris Kiritsis
Co-chair
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GENERAL INFORMATION

CONFERENCE VENUE
The location, for the APMS 2012, is the fascinating Rodos Palace International Convention Center, a five star resort & convention centre in the unique island of Rhodes, Greece.

SPEAKERS’ PREVIEW ROOM
Speakers’ PreView Room is located close to the Secretariat. All powerpoint files must be delivered to the Speakers’ PreView Room at least one hour before the session starts. Data files must be on CD-Rom or USB stick and cannot be delivered in the session rooms in order to avoid delay and projection problems. Opening hours of the Speakers’ PreView Room are the same as the Secretariat’s.

NAME BADGES
You may receive your personal name badge at the Secretariat. For security purposes, delegates must wear their name badges throughout the APMS 2012 Conference and to all social events. There will be different colours in the upper side of the badge indicating special categories.

CERTIFICATES OF ATTENDANCE
Certificates of Attendance will be issued by the Secretariat at the end of the APMS 2012 Conference.

INSURANCE
Registration fees do not include insurance of participants against cancellation, accidents, theft or property loss. Participants should arrange for their own insurance.

APMS 2012 CONFERENCE SECRETARIAT
The official APMS 2012 Conference Secretariat is ZITA Congress S.A. which is located at a central point of the Venue.

SOCIAL PROGRAM

Welcome Reception (included in full registration)
24 SEPTEMBER 2012
20.00 Palace of the Grand Masters (Palazzo dei Grandi Maestri)
Rhodes Old Medieval Town Centre

Conference Dinner (included in full registration)
25 SEPTEMBER 2012
20.00 Rodos Palace International Convention Center
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# PROGRAM OVERVIEW

**Date: Monday, 24/Sep/2012**

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:30am - 9:00am</td>
<td>APR-2: APMS 2012 Registration Open – 2</td>
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<tr>
<td>9:00am - 11:00am</td>
<td><strong>OPS: Opening Plenary Session</strong>&lt;br&gt;Chair: Christos Emmanouilidis&lt;br&gt;APMS 2012 welcome introduction:&lt;br&gt;Christos Emmanouilidis, ATHENA Research &amp; Innovation Centre&lt;br&gt;Marco Taisch, Politecnico di Milano, IFIP WG5.7 Chairman</td>
<td>Keynote talk 1: &quot;A business perspective for manufacturing research&quot;, Jochen Rode, SAP&lt;br&gt;Keynote talk 2: &quot;ICT-driven innovation in the Factories of the Future&quot;, Rolf Riemenschneider, European Commission</td>
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<td>11:00am - 11:15am</td>
<td><strong>COB-1: Coffee Break – 1</strong></td>
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<td>11:15am - 1:15pm</td>
<td><strong>EEM-1: Energy Efficient Manufacturing - 1</strong>&lt;br&gt;R1-NAUSICA-A&lt;br&gt;Session Chair: Christoph Herrmann&lt;br&gt;Session Chair: Gökan May</td>
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<td>11:15am - 1:15pm</td>
<td><strong>ICT-1: ICT for Manufacturing, Services, Logistics and Production Management - 1</strong>&lt;br&gt;R4-NEFELI-B&lt;br&gt;Session Chair: Bernard Grabot&lt;br&gt;Session Chair: Heidi C. Dreyer</td>
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<td>11:15am - 1:15pm</td>
<td><strong>PAL-1: Product and Asset Lifecycle Management - 1</strong>&lt;br&gt;R2-NAUSICA-B&lt;br&gt;Session Chair: Sergio Cavalieri&lt;br&gt;Session Chair: Diego D’Urso</td>
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<td>11:15am - 1:15pm</td>
<td><strong>SNS-1: Supply Networks and Supply Chain Management - 1</strong>&lt;br&gt;R3-NEFELI-A&lt;br&gt;Session Chair: David Sparling</td>
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<td>1:15pm - 2:15pm</td>
<td><strong>LUN-1: Lunch Break – 1</strong></td>
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<td>2:15pm - 3:00pm</td>
<td><strong>PS2: Plenary Session 2</strong>&lt;br&gt;Chair: Marco Taisch&lt;br&gt;Keynote talk 3: &quot;Sustainable Manufacturing: towards a competitive industrial base in Europe&quot;, Filip Geerts, CECIMO</td>
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<tr>
<td>3:00pm - 5:00pm</td>
<td>DMC-1: Design for Mass-Customized Products and Services - 1</td>
<td>R1-NAUSICA-A</td>
<td>Mahnoosh Zebardast, Dimitris Mourtzis</td>
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<td>3:00pm - 5:00pm</td>
<td>IPS: Industry Panel Session</td>
<td>R1-NAUSICA-A</td>
<td>Gregor Alexander von Cieminski, Hermann Loedding</td>
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<td>3:00pm - 5:00pm</td>
<td>MIO-1: Managing International Operations - 1</td>
<td>R2-NAUSICA-B</td>
<td>Donatella Corti, Torbjoern H. Netland</td>
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<td>3:00pm - 5:00pm</td>
<td>SNS-2: Supply Networks and Supply Chain Management - 2</td>
<td>R3-NEFELI-A</td>
<td>Shigeki Umeda</td>
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<td>5:20pm - 7:00pm</td>
<td>EEM-2: Energy Efficient Manufacturing - 2</td>
<td>R1-NAUSICA-A</td>
<td>Mohsen A Jafari, Vittaldas V Prabhu</td>
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<td>5:20pm - 7:00pm</td>
<td>MIO-2: Managing International Operations - 2</td>
<td>R2-NAUSICA-B</td>
<td>Ming Lim, Stanislaw Strzelczak</td>
</tr>
<tr>
<td>5:20pm - 7:00pm</td>
<td>SER-1: Services-1</td>
<td>R3-NEFELI-A</td>
<td>Klaus-Dieter Thoben</td>
</tr>
<tr>
<td>5:20pm - 7:00pm</td>
<td>TPF-1: Towards the Products of the Future - 1</td>
<td>R4-NEFELI-B</td>
<td>Sergio Terzi, Masaru Nakano</td>
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<tr>
<td>8:00pm - 10:00pm</td>
<td>AWR: APMS 2012 Welcome Reception</td>
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</table>
Date: Tuesday, 25/Sep/2012

7:30am - 8:30am APR-3: APMS 2012 Registration Open - 3

8:30am - 10:15am PS3: Plenary Session 3
Chair: Dimitris Kiritsis
Keynote talk 4:
"ICT Integration challenges in manufacturing: from the device to the enterprise level", Thilo Sauter, Austrian Academy of Sciences

Salon des Roses
Keynote talk 5:
"The IMS global platform services for manufacturing research and innovation", Dan Nagy, IMS

10:15am - 10:30am COB-3: Coffee Break - 3

10:30am - 12:50pm ETP-1: Emerging Technologies in Product and Asset Lifecycle Management - 1
R3-NEFELI-A
Session Chair: J.C. Wortmann
Session Chair: Chi-Hyuck Jun

10:30am - 12:50pm GRA-1: Global Research Activities in Energy and Resource Efficient Manufacturing - 1
R1-NAUSICA-A
Session Chair: Andrea Gentili
Session Chair: Bojan Stahl

10:30am - 12:50pm MSC-1: Manufacturing and Supply Chain in a Mass Customization Environment - 1
R2-NAUSICA-B
Session Chair: Golboo Pourabdollahian
Session Chair: Richard Lee Storch

10:30am - 12:50pm SMS-1: Service Manufacturing Systems - 1
R4-NEFELI-B
Session Chair: Toshiya Kiihara
Session Chair: Nobutada Fujii

12:50pm - 2:00pm LUN-2: Lunch Break - 2

2:00pm - 3:40pm DMS-1: Design of Manufacturing Systems - 1
R3-NEFELI-A
Session Chair: Alexandre Dolgui
Session Chair: Olga Battaia

2:00pm - 3:40pm EEM-3: Energy Efficient Manufacturing - 3
R1-NAUSICA-A
Session Chair: Juhani Heilala
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Location</th>
<th>Chair(s)</th>
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<tbody>
<tr>
<td>2:00pm - 3:40pm</td>
<td><strong>PS4: Plenary Session 4</strong>&lt;br&gt;Chair: Marco Garetti&lt;br&gt;Keynote talk 6:&lt;br&gt;&quot;Energy management operations in shipping industry&quot;, Takis Varelas, DANAOS</td>
<td>Salon des Roses</td>
<td>Marco Garetti</td>
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<td>3:40pm - 4:00pm</td>
<td><strong>COB-4: Coffee Break - 4</strong></td>
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<td>4:00pm - 5:30pm</td>
<td><strong>PMO-1: Production Management, Operations &amp; Logistics - 1</strong>&lt;br&gt;Session Chair: Eiji Arai&lt;br&gt;Session Chair: Jan Frick</td>
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<td>Eiji Arai, Jan Frick</td>
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<td>5:30pm - 7:10pm</td>
<td><strong>ADM-1: Advanced Design, Manufacturing and Production Management - 1</strong>&lt;br&gt;Session Chair: Katsuhiko Takahashi&lt;br&gt;Session Chair: Lenka Landryova</td>
<td>R3-NEFELI-A</td>
<td>Katsuhiko Takahashi, Lenka Landryova</td>
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<tr>
<td>5:30pm - 7:10pm</td>
<td><strong>PMO-2: Production Management, Operations &amp; Logistics - 2</strong>&lt;br&gt;Session Chair: Peter Nielsen&lt;br&gt;Session Chair: Hans-Henrik Hvolby</td>
<td>R2-NAUSICA-B</td>
<td>Peter Nielsen, Hans-Henrik Hvolby</td>
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<tr>
<td>5:30pm - 7:10pm</td>
<td><strong>PRM-1: Performance and Risk Management - 1</strong>&lt;br&gt;Session Chair: Peter Almström&lt;br&gt;Session Chair: Stefan Hesse</td>
<td>R4-NEFELI-B</td>
<td>Peter Almström, Stefan Hesse</td>
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<tr>
<td>5:30pm - 7:10pm</td>
<td><strong>SVC-1: Sustainable Value Creation in Manufacturing - 1</strong>&lt;br&gt;Session Chair: Marco Macchi&lt;br&gt;Session Chair: Steve Evans</td>
<td>R1-NAUSICA-A</td>
<td>Marco Macchi, Steve Evans</td>
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<tr>
<td>8:00pm - 11:00pm</td>
<td><strong>ACD: APMS 2012 Conference Dinner</strong>&lt;br&gt;Rodos Palace Hotel</td>
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<td>8:00am - 8:30am</td>
<td>APR-4</td>
<td>APMS 2012 Registration Open - 4</td>
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<tr>
<td>8:30am - 10:50am</td>
<td>ADM-2</td>
<td>Advanced Design, Manufacturing and Production Management - 2</td>
<td>Hajime Mizuyama, Marco Semini</td>
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<td>8:30am - 10:50am</td>
<td>HFI-1</td>
<td>Human Factors, Innovation, Quality and Knowledge Management - 1</td>
<td>Vidosav D. Majstorovic</td>
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<td>R4-NEFELI-B</td>
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<td>8:30am - 10:50am</td>
<td>PAL-2</td>
<td>Product and Asset Lifecycle Management - 2</td>
<td>Agostino Villa</td>
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<td>8:30am - 10:50am</td>
<td>SUS-1</td>
<td>Business Strategies, Models and Sustainability - 1</td>
<td>Vito Albino, Gunduz Ulusoy</td>
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<td>10:50am - 11:10am</td>
<td>COB-5</td>
<td>Coffee Break - 5</td>
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<tr>
<td>11:10am - 1:10pm</td>
<td>AML-1</td>
<td>Application of Modern Learning Technologies in Manufacturing and Production Systems - 1</td>
<td>Borzoo Pourabdollahian, Philippe Pernelle</td>
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<tr>
<td>11:10am - 1:10pm</td>
<td>EII-1</td>
<td>Enterprise Integration and Interoperability - 1</td>
<td>Athanasios P. Kalogeras, Gabriela Patricia Henning</td>
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<td>11:10am - 1:10pm</td>
<td>ROB-1</td>
<td>Robotics in Manufacturing</td>
<td>Rosanna Fornasier, Kenn Steger-Jensen</td>
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<tr>
<td>11:10am - 1:10pm</td>
<td>SIP-1</td>
<td>Sustainable innovations in products and services in developing countries - 1</td>
<td>Irenilza Nääs</td>
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<td>1:10pm - 2:20pm</td>
<td>LUN-3</td>
<td>Lunch Break - 3</td>
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<tr>
<td>2:20pm - 4:00pm</td>
<td>AML-2</td>
<td>Application of Modern Learning Technologies in Manufacturing and Production Systems - 2</td>
<td>Julien Le Duigou</td>
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<td>2:20pm - 4:00pm</td>
<td>ICT-2: ICT for Manufacturing, Services, Logistics and Production Management - 2</td>
<td>Henk Jan Pels, Jinwoo Park</td>
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<td>2:20pm - 4:00pm</td>
<td>PMO-3: Production Management, Operations &amp; Logistics - 3</td>
<td>Nikolaos A. Panayiotou, Ilias Tatsiopoulos</td>
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<td>2:20pm - 4:00pm</td>
<td>SIP-2: Sustainable innovations in products and services in developing countries - 2</td>
<td>Pedro Luiz de Oliveira Costa Neto</td>
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<td>4:00pm - 4:15pm</td>
<td>COB-6: Coffee Break - 6</td>
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<td>4:15pm - 5:00pm</td>
<td>CS: Closing Session</td>
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**Date:** Monday, 24/Sep/2012

**OPS: Opening Plenary Session**

*Time:* Monday, 24/Sep/2012: 09:00am - 11:00am · *Location:* Salon de Roses

*Session Chair:* Christos Emmanouilidis

**OPS**

**PMS 2012 Welcome introduction:**
Christos Emmanouilidis, ATHENA Research & Innovation Centre
Marco Taisch, Politecnico di Milano, IFIP WG5.7 Chairman

**Keynote talk 1:**
"A business perspective for manufacturing research",
Jochen Rode, SAP

**Keynote talk 2:**
"ICT-driven innovation in the Factories of the Future",
Rolf Riemenschneider, European Commission

**EEM-1: Energy Efficient Manufacturing - 1**

*Time:* Monday, 24/Sep/2012: 11:15am - 1:15pm · *Location:* R1-NAUSICA-A

*Session Chair:* Christoph Herrmann

**EEM-1: 1**

*Toward Energy Efficient Manufacturing: A Study on Practices and Viewpoint of the Industry*
Gökan May, Marco Taisch, Bojan Stahl, Vahid Sadr
Politecnico di Milano, Italy

**EEM-1: 2**

*Proposition of an Energy Product Model Integrating Energy-Efficient Production Planning and a communication Framework for the Energy Supply Chain to Improve the Energy Management of Producing Companies*
Volker Stich, Sebastian Kropp, Ulrich Brandenburg, Daniel Batalla-Navarro, Emmanuil Ntzemos, Jorge Sunyer
FIR at RWTH Aachen University, Germany

**EEM-1: 3**

*An Extended Energy Value Stream Approach Applied on the Electronic Industry*
Gerrit Bogdanski, Malte Schönemann, Sebastian Thiede, Stefan Andrew, Christoph Herrmann
Technische Universität Braunschweig, Germany
EEM-1: 4
An ICT Supported Holistic Approach for Qualitative and Quantitative Energy Efficiency Evaluation in Manufacturing Company
Hendro Wicaksono¹, Kiril Aleksandrov¹, Sven Rogalski², Jivka Ovtcharova²
¹ISPE/PDE, FZI Research Center for Information Technology, Karlsruhe, Germany; ²Institute for Information Management in Engineering, Karlsruhe Institute of Technology, Germany

EEM-1: 5
An investigation of minimising total energy consumption, total energy cost and total tardiness based on rolling blackout policy in a job shop
Ying Liu¹, Niels Lohse¹, Sanja Petrovic¹, Nabil Gindy²
¹University of Nottingham, United Kingdom; ²University of Nottingham, Ningbo, China

EEM-1: 6
Modeling new energy efficient production technologies in a supply chain context: A case from the dairy industry
Bryndís Stefánsdóttir, Martin Grunow
TUM School of Management, Technical University of Munich, Munich, Germany
ICT-1: ICT for Manufacturing, Services, Logistics and Production Management - 1

Time: Monday, 24/Sep/2012: 11:15am - 1:15pm · Location: R4-NEFELI-B
Session Chair: Bernard Grabot
Session Chair: Heidi C. Dreyer

ICT-1: 1
Investigating the Impact of Information and Communications Technology in Collaborative Planning, Forecasting and Replenishment: a Case Study of an Advanced Planning System in the Norwegian Pharmacy Industry
Maria Kollberg Thomassen¹, Heidi Dreyer², Patrik Jonsson³
¹SINTEF Technology and Society, Department of Industrial Management, Trondheim, Norway; ²Norwegian University of Science and Technology, Department of Production and Quality Engineering, Trondheim, Norway; ³Chalmers University, Department of Technology Management and Economics, Gothenburg, Sweden

ICT-1: 2
Introducing "2.0" functionalities in an ERP
Bernard Grabot¹, Raymond Houé¹, Fabien Lauroua², Anne Mayère³
¹ENIT, France; ²SAP; ³University of Toulouse

ICT-1: 3
The Effect of Temperature on Climacteric Fruit in Cold Chain
YoonSeok Chang¹, Myo Min Aung¹, Charalampos Makatsoris²
¹Korea Aerospace University, Korea, Republic of (South Korea); ²Brunel university

ICT-1: 4
INTEGRATION OF REVERSE ENGINEERING TECHNIQUES AND VIRTUAL PRODUCTION IN THE DEVELOPMENT AND DESIGN OF HYDROTURBINES
Radomir Radiša¹, Srećko Manasijević¹, Vladimir Kvrgić¹, Vesna Mandić²
¹LOLA institute, Serbia; ²University of Kragujevac Mechanical Engineering Faculty

ICT-1: 5
Enabling information sharing in a port
Peter Bjerg Olesen, Hans-Henrik Hvolby, Iskra Dukovska-Popovska
Aalborg University, Denmark

ICT-1: 6
Designing and Implementing a Web Platform to Support SMEs in Collaborative Product Development
Marco Formentini, Michela Lolli, Alberto Felice De Toni
Università degli Studi di Udine, Italy
PAL-1: Product and Asset Lifecycle Management - 1

Time: Monday, 24/Sep/2012: 11:15am - 1:15pm · Location: R2-NAUSICA-B

Session Chair: Sergio Cavalieri
Session Chair: Diego D’Urso

PAL-1: 1
Fourth Party Energy Provider for the Building Value Chain
Stefano Ierace, Sergio Cavalieri, Nicola Pedrali
UNIVERSITà degli STUDI di BERGAMO, Italy

PAL-1: 2
Towards an harmonious and integrated management approach for lifecycle planning
Frédéric Demoly, Samuel Deniaud, Samuel Gomes
Université de Technologie de Belfort-Montbéliard (UTBM), France

PAL-1: 3
Design Support based onto knowledge to increase product reliability and allow optimized abacus development
Jeremy Boxberger¹,², Daniel Schlegel¹, Nadhir Lebaal², Samuel Gomes²
¹Zurfluh-Feller, France; ²UTBM laboratoire M3M, France

PAL-1: 4
Equipment’s Prognostics using Logical Analysis of Data
Alireza Ghasemi¹, Sasan Esmaeili¹, Soumaya Yacout²
¹Dalhousie University, Halifax, Canada; ²cole Polytechnique de Montréal, Montreal, Canada

PAL-1: 5
Designing an optimal-shape warehouse
Diego D’Urso, Lucio Compagno, Natalia Trapani
Università degli Studi di Catania, Italy

PAL-1: 6
Sustainable Layout Planning Requirements by Integration of Discrete Event Simulation Analysis (DES) with Life Cycle Assessment (LCA)
Victor Emmanuel de Oliveira Gomes¹, Durval João De Barba Jr.¹, Jefferson de Oliveira Gomes¹, Karl-Heinrich Grote², Christiane Beyer³
¹ITA - Institute of Aeronautical Technology, Brazil; ²OvG - Universität Magdeburg, Germany; ³California State University Long Beach, USA
SNS-1: Supply Networks and Supply Chain Management - 1

Time: Monday, 24/Sep/2012: 11:15am - 1:15pm · Location: R3-NEFELI-A
Session Chair: David Sparling

SNS-1: 1
Greening manufacturing supply chains – Introducing bio-based products into manufacturing supply chains
David Sparling¹, Fred Pries², Erin Cheney¹
¹Richard Ivey School of Business, Canada; ²University of Guelph, Canada

SNS-1: 2
Improving the application of financial measures in Supply Chain Management
Felix Friemann¹, Matthias Wandfluh¹, Robert Alard², Paul Schönsleben¹
¹ETH Zurich, Switzerland; ²University of Applied Sciences and Arts Northwestern, Switzerland

SNS-1: 3
Chinese SME’s Sourcing Practices and their Impact on Western Suppliers
Matthias Wandfluh, Christian Schneider, Paul Schönsleben
ETH Zurich, Switzerland

SNS-1: 4
Game theory based multi-attribute negotiation between MA and MSAs
Fang Yu, Toshiya kaihara, Nobutada Fujii
kobe university, Japan

SNS-1: 5
Supplier Selection Criteria in Fractal Supply Network
Sameh Saad, Julian Aririguzo, Terrence Perera
Sheffield Hallam University, United Kingdom

SNS-1: 6
A Test-bed system for supply chain management incorporating reverse logistics
Shigeki Umeda
Musashi University, Japan

PS-2: Plenary Session - 2

Time: Monday, 24/Sep/2012: 14:15am - 15:00am · Location: Salon de Roses
Session Chair: Marco Taisch

PS-2
Keynote talk 3:
"Sustainable Manufacturing: towards a competitive industrial base in Europe",
Filip Geerts, CECIMO
IPS: Industry Panel Session

**Time:** Monday, 24/Sep/2012: 3:00pm - 5:00pm  
**Location:** Salon de Roses

**Session Chair:** Gregor Alexander von Cieminski  
**Session Chair:** Hermann Loeding

IPS

**Panel presentations:**

- **Wolfgang Menzel,** Continental  
  "Leadership in Electronics Operations @Continental"

- **Volker Stich,** RWTH Aachen  
  "Integrating industrial needs with academic perspectives - concept and realization of the RWTH Aachen High Tech Campus"

**Panel discussion**

- **Paul Schönleben,** ETH  
- **Dan Nagy,** IMS  
- **Filip Geerts,** CECIMO

**Session Objective**

The aim of this panel session is to give APMS participants from industry an opportunity to share their thoughts about this year’s conference theme and to foster the exchange between academia and industrial practice. Leading experts from Industry and Academia will offer their viewpoints in a lively panel poised to become a springboard for stimulating discussions. The discussion with the panel is open to:

i) practitioners interested in the exchange with academia and

ii) all academic colleagues who would like to share the experiences gained in projects conducted with industrial partners.

While the topics covered do not differ from those of the “academic” sessions of APMS 2012, the Industry Session aims to give particular insight into

- the practical challenges production managers face in industry,
- good practices of Competitive Manufacturing,
- problems remaining unsolved in a practical context and how academia can contribute to solving these practical problems.

Particularly welcome are contributions that also share “bad practices” and “lessons learned” with us. The session aims to pinpoint differentiating factors between those academic ideas offering excellent implementation prospects and those of limited practical relevance. The ultimate aim is to identify key elements of success in the process of linking research to industry.
Session Schedule

15.00-15.10: Introduction by Hermann Lödding and Gregor von Cieminski
15.10-16.00: Presentations by Dr. Wolfgang Menzel and Prof. Volker Stich (25 minutes each)
16.00-16.50: Panel discussion including:
- Personal introduction of panel members and short positioning statements
- Volker Stich
- Filip Geerts
- Paul Schönsleben
- Guided Discussion among panel members
- Open discussion between panel and audience
16.50-17.00: Closing of the session (Lödding / von Cieminski)

Session chairs

Prof. Hermann Lödding,
Institute of Production Management and Technology (IPMT),
Harburg / Hamburg University of Technology
Dr Gregor von Cieminski,
ZF Group, ZF Friedrichshafen AG

Panel presentations

Dr.-Ing. Wolfgang Menzel
Vice President CEP Operations
Company: Continental Automotive GmbH
Title: "Leadership in Electronics Operations @Continental"

Prof. Dr.-Ing. Volker Stich
Managing Director
Institute: FIR - Research Institute for Operations Management at RWTH Aachen
Title: "Integrating industrial needs with academic perspectives - concept and realization of the RWTH Aachen High Tech Campus"

Panel discussion

Prof. Paul Schönsleben
Head of Department of Management, Technology, and Economics,
BWI Center for Industrial Management, ETH Zurich, Switzerland

Dan Nagy
Managing Director
IMS Inter-Regional Secretariat, Switzerland
Filip Geerts
General Director, CECIMO-European Association of the Machine Tool Industries
Chairman of the EC’s Working Group on Advanced Manufacturing Systems (Key Enabling Technologies – KET AMS), Brussels, Belgium
**DMC-1: Design for Mass-Customized Products and Services - 1**

*Time:* Monday, 24/Sep/2012: 3:00pm - 5:00pm  ·  *Location:* R1-NAUSICA-A

**Session Chair:** Mahnoosh Zebardast Donatella Corti

**Session Chair:** Dimitris Mourtzis

**DMC-1: 1**

**The Multiple Faces of Mass Customization: Product Design, Process Design and Supply Chain Design**

Nico J. Vandaele¹, Catherine J. Decouttere¹,²

¹Kuleuven, Belgium; ²FlandersInShape

**DMC-1: 2**

**Modularization - enabler for shop floor involvement in improvement and development**

Bjørnar Henriksen¹, Lars Skjelstad¹, Eva Amdahl Seim², Carl Christian Røstad¹

¹SINTEF, Norway; ²Norwegian University of Science and Technology, Norway

**DMC-1: 3**

**Comparison of criticality of configuration choices for market price and product cost**

Peter Nielsen, Thomas Ditlev Brunoe

Aalborg University, Denmark

**DMC-1: 4**

**Development of a Business Process Matrix for structuring the implications of using configurators in an engineer-to-order environment**

Olga Willner, Manuel Rippel, Matthias Wandfluh, Paul Schönsleben

ETH Zurich, Switzerland

**DMC-1: 5**

**Designing rotationally symmetric products for multi-variant mass production by using production-technical solution space**

Günter Schuh, Till Potente, Stephan Schmitz

Werkzeugmaschinenlabor WZL der RWTH Aachen, Germany

**DMC-1: 6**

**From Mass Customization to Massive Customization in Construction Industry**

Ingrid Paoletti, Roberto Stefano Naboni

Politecnico di Milano, Italy
MIO-1: Managing International Operations - 1

Time: Monday, 24/Sep/2012: 3:00pm - 5:00pm · Location: R2-NAUSICA-B

Session Chair: Donatella Corti
Session Chair: Torbjoern H. Netland

MIO-1: 1
Improving the industrialization of a new product in an international production network: a case study from the machinery industry
Donatella Corti, Saransh Choudhury
Politecnico di Milano, Italy

MIO-1: 2
The Insignificant Role of National Culture in Global Lean Programmes
Torbjoern H. Netland¹, Miguel Mediavilla², Ander Errasti³
¹Norwegian University of Science and Technology, Georgetown University; ²UNED University; ³Tecnun University of Navarra

MIO-1: 3
Methodology to identify SMEs needs of internationalised collaborative non-hierarchical networks
Beatriz Andrés, Raul Poler
Research Centre on Production Management and Engineering (CIGIP), Spain

MIO-1: 4
Proposing an Environmental Excellence Self-Assessment Model
Peter Meulengracht Jensen, Johansen John, Brian Vejrum Waehrens
Aalborg University, Denmark

MIO-1: 5
Framework for Improving the Design and Configuration Process of a Global Production and Logistic Network
Sandra Martinez, Ander Errasti
Tecnun, Spain

MIO-1: 6
Creating an Innovative Culture in a Global Environment
Dan L. Shunk
Arizona State University, United States of America
SNS-2: Supply Networks and Supply Chain Management - 2

Time: Monday, 24/Sep/2012: 3:00pm - 5:00pm · Location: R3-NEFELI-A
Session Chair: Shigeki Umeda

SNS-2: 1
A Dyadic Study of Control in Buyer-Supplier Relationships
Anna Aminoff, Kari Tanskanen
Aalto University, School of Science

SNS-2: 2
A Fuzzy Decision Support System for drawing directions from purchasing portfolio models
Davide Aloini, Riccardo Dulmin, Valeria Mininno
University of Pisa, Italy

SNS-2: 3
An MILP model for transportation planning in the FTL strategy to supply products with unbalanced demand in the JIT context: a case study
Julien Maheut¹, Jose Pedro Garcia-Sabater²
¹Universidad Politecnica de Valencia, Spain; ²Universidad Politecnica de Valencia, Spain

SNS-2: 4
Total Cost of Ownership for Supply Chain Management: a case study in an OEM of the automotive industry
Paulo Afonso
University of Minho, Portugal

SNS-2: 5
Model for Quality Appraisal in Supply Networks
João Gilberto Mendes dos Reis¹², Pedro Luiz de Oliveira Costa Neto¹
¹Federal University of Grande Dourados, Brazil (UFGD); ²Paulista University, Brazil (UNIP)

SNS-2: 6
Opportunistic and Dynamic Reconfiguration of Vehicle Routing Problem Controlled by the Intelligent Product
Rodrigue Tchapnga Takoudjou, Jean-Christophe Deschamps, rémy Dupas
University of Bordeaux, France
EEM-2: Energy Efficient Manufacturing - 2

Time: Monday, 24/Sep/2012: 5:20pm - 7:00pm · Location: R1-NAUSICA-A

Session Chair: Mohsen A Jafari
Session Chair: Vittaldas V Prabhu

EEM-2: 1
Energy implications in the single-vendor single-buyer integrated production inventory model
Simone Zanoni¹, Laura Bettoni¹, Christoph Glock²
¹University of Brescia, Italy; ²Technische Universität Darmstadt, Germany

EEM-2: 2
Analyzing Energy Consumption for Factory and Logistics Planning Processes
Egon Müller, Hendrik Hopf, Manuela Krones
Chemnitz University of Technology, Department of Factory Planning and Factory Management, Germany

EEM-2: 3
Modeling Green Fabs – A Queuing Theory Approach for Evaluating Energy Performance
Vittaldas V Prabhu, Hyun Woo Jeon
Pennsylvania State University, United States of America

EEM-2: 4
Elasticity Measures to Quantify Demand Management in Production Lines
Yan Lu¹, Dong Wei¹, HALIL IBRAHIM GULTEKIN¹, Niloofar Salahi², Mohsen Jafari²
¹Siemens Corporate Research, United States of America; ²Dept. of Industrial & Systems Engineering Rutgers University

EEM-2: 4
How energy recovery can reshape storage assignment in automated warehouses
Antonella Meneghetti, Luca Monti
University of Udine, Italy

MIO-2: Managing International Operations - 2

Time: Monday, 24/Sep/2012: 5:20pm - 7:00pm · Location: R2-NAUSICA-B

Session Chair: Ming Lim
Session Chair: Stanislaw Strzelczak

MIO-2: 1
Idiosyncratic behavior of globally distributed manufacturing
Stanislaw Strzelczak
Warsaw University of Technology, Poland

MIO-2: 2
Optimize Resource Utilization at Multi-site Facilities with Agent Technology
Ming Lim
Aston University, United Kingdom
MIO-2: 3
What to offshore, what to produce at home? A methodology for systematic decision-making
Marco Semini, Borge Sjobakk, Erlend Alfnes
SINTEF, Norway

MIO-2: 4
Dynamic Manufacturing Networks Monitoring and Governance
Panagiotis Kokkinakos, Ourania Markaki, Dimitrios Panopoulos, Sotiris Koussouris, Dimitrios Askounis
National Technical University of Athens, Greece

MIO-2: 5
Benefits and Risks in Dynamic Manufacturing Networks
Ourania Markaki, Panagiotis Kokkinakos, Dimitrios Panopoulos, Sotiris Koussouris, Dimitrios Askounis
National Technical University of Athens, Greece

SER-1: Services-1
Time: Monday, 24/Sep/2012: 5:20pm - 7:00pm · Location: R3-NEFELI-A
Session Chair: Klaus-Dieter Thoben

SER-1: 1
The role of IT for extended products’ evolution into service ecosystems
Klaus-Dieter Thoben¹, J.C. Wortmann²
¹BIBA - Bremer Institut für Produktion und Logistik, Germany; ²University of Groningen, The Netherlands

SER-1: 2
The Value and Management Practices of Installed Base Information in Product-Service Systems
Nicola Saccani¹, Andrea Alghisi¹, Jukka Borgman²
¹University of Brescia, Italy; ²Aalto University, Finland

SER-1: 3
Reference decision models in the medico-social service sector
Henri Kromm¹, Yves Ducq²
¹Acthan Expertises, France; ²Université Bordeaux 1, France

SER-1: 4
Service model for the service configuration
Jose Angel Lakunza, Juan Carlos Astiazaran, Maria Elejoste
Ikerlan, Spain

SER-1: 5
Demand control loops for a global spare parts management
Uwe Dombrowski¹, Sebastian Weckenborg¹, Michael Mederer²
¹Technische Universität Braunschweig, Germany; ²m²hycon, Germany
TPF-1: Towards the Products of the Future - 1

Time: Monday, 24/Sep/2012: 5:20pm - 7:00pm · Location: R4-NEFELI-B

Session Chair: Sergio Terzi
Session Chair: Masaru Nakano

TPF-1: 1
Multi-Objective Optimization of Product Life-Cycle Costs and Environmental Impacts
Daniele Cerri2, Marco Taisch2, Sergio Terzi1
1University of Bergamo, Italy; 2Politecnico di Milano, Italy

TPF-1: 2
Design of a Taxation System to Promote Electric Vehicles in Singapore
Seng Tat Chua, Masaru Nakano
Keio University, Japan

TPF-1: 3
Design of Generalized Ontology for Manufacturing Product Lifecycle Applications
Apostolos Perdikakis1, Ana Milicic1, Soumaya El Kadiri1, Dimitris Kiritsis1, Dimitris Alexandrou2, Kostas Pardalis2
1EPFL, Switzerland; 2Ubitech, Greece

TPF-1: 4
Proposal of an Assessment Model for New Product Development
Monica Rossi1, Sergio Terzi2, Marco Garetti1
1Politecnico di Milano, Italy; 2Università degli studi di Bergamo, Italy

TPF-1: 5
Knowledge Management in Set Based Lean Product Development Process
Robert Furian1, Frank von Lacroix1, Dragan Stokic2, Ana Correia2, Cristina Grama2, Stefan Faltus2, Maksim Maksimovic1, Karl-Heinrich Grote4, Christiane Beyer5
1Volkswagen AG, Germany; 2Institut für angewandte Systemtechnik Bremen, Germany; 3Cranfield University, United Kingdom; 4Otto-von-Guericke-Universität Magdeburg, Germany; 5California State University, Long Beach, USA
**Date: Tuesday, 25/Sep/2012**

**PS-3: Plenary Session 3**
*Time: Tuesday, 25/Sep/2012: 09:00am - 11:00am · Location: Salon de Roses*
*Session Chair: Dimitris Kiritsis*

**PS-3**

**Keynote talk 4:**
"ICT Integration challenges in manufacturing: from the device to the enterprise level",
Thilo Sauter, Austrian Academy of Sciences

**Keynote talk 5:**
"The IMS global platform services for manufacturing research and innovation",
Dan Nagy, IMS

**ETP-1: Emerging Technologies in Product and Asset Lifecycle Management - 1**
*Time: Tuesday, 25/Sep/2012: 10:30am - 12:50pm · Location: R3-NEFELI-A*
*Session Chair: J.C. Wortmann*
*Session Chair: Chi-Hyuck Jun*

**ETP-1: 1**
**Analysis of Manufacturing Process Sequences, using Machine Learning on Intermediate Product States (as Process Proxy Data)**
**Thorsten Wuest¹, Christopher Irgens², Klaus-Dieter Thoben¹**
¹Bremer Institut für Produktion und Logistik GmbH, Germany; ²University of Strathclyde, UK

**ETP-1: 2**
**A Critical Evaluation of RFID in Manufacturing**
**Wei Zhou²,³, Selwyn Piramuthu¹,³**
¹University of Florida, United States of America; ²ESCP Europe, France; ³RFID European Lab, France

**ETP-1: 3**
**Seamless access to sensor networks for enhanced manufacturing processes**
**Kostas Kalaboukas¹, Borislav Jerabek², Rok Lah²**
¹Singular Logic SA, Greece; ²Gorenje DD, Slovenia

**ETP-1: 4**
**Wireless Sensor Network Technologies for Condition Monitoring of Industrial Assets**
**Spilios Giannoulis¹, Christos Koulamas¹, Christos Emmanouilidis², Petros Pistofidis², Dimitris Karampatzakis²**
¹ISI / "ATHENA" R.C., Greece; ²ILSP / "ATHENA" R.C., Greece
ETP-1: 5
Semantic Data Model for Operation and Maintenance of the Engineering Asset
Andreas Koukias, Dražen Nadoveza, Dimitris Kiritsis
École Polytechnique Fédérale de Lausanne (EPFL), Switzerland

ETP-1: 6
Improving Tree-based Classification Rules Using a Particle Swarm Optimization
Chi-Hyuck Jun, Yun-Ju Cho, Hyeseon Lee
POSTECH, Korea, Republic of (South Korea)

ETP-1: 7
Profiling context awareness in mobile and cloud based engineering asset management
Petros Pistofidis, Christos Emmanouilidis
ATHENA Research & Innovation Centre, Greece

GRA-1: Global Research Activities in Energy and Resource Efficient Manufacturing - 1
Time: Tuesday, 25/Sep/2012: 10:30am - 12:50pm · Location: R1-NAUSICA-A
Session Chair: Andrea Gentili
Session Chair: Bojan Stahl

GRA-1: 1
Requirements analysis and definition for eco-manufacturing systems: the case of EMC2
Bojan Stahl, Marco Taisch
Politecnico di Milano, Italy

GRA-1: 2
Factory modelling: combining energy modelling for buildings and production systems
Peter Ball¹, Melanie Despeisse¹, Steve Evans², Rick Greenough³, Steve Hope⁴, Ruth Kerrigan⁵, Andrew Levers⁶, Peter Lunt⁶, Mike Oates³, Richard Quincey⁵, Li Shao³, Timothy Waltniel³, Craig Wheatley⁵, Andrew Wright⁶
¹Cranfield University, United Kingdom; ²Cambridge University, United Kingdom; ³De Montfort University, United Kingdom; ⁴Toyota Motor Europe, Belgium; ⁵IES Ltd, United Kingdom; ⁶Airbus Operations Ltd, United Kingdom
GRA-1: 3

Energy Efficient Process Planning System - The ENEPLAN Project
John Pandremenos¹, Paolo Calefati², Apostolos Fysikopoulos³, George Chryssolouris¹
¹Laboratory for Manufacturing Systems and Automation, University of Patras, Rio, Patras 26500, Greece; ²PRIMA INDUSTRIE S.p.A., Via Antonelli 32, 10097 Collegno (TO), Italy

GRA-1: 4

Energy efficiency optimisation in heat treatment process design
Inigo Mendikoa¹, Mikel Sorli¹, Alberto Armijo¹, Laura Garcia¹, Luis Erausquin², Mario Insunza³, Jon Bilbao³, Hakan Friden⁴, Anders Björk⁴, Linus Bergfors⁴, Romualdas Skema⁵, Robertas Alzbutas⁵
¹TECNALIA Research & Innovation, Spain; ²Fundiciones del Estanda; ³Sisteplant S.L.; ⁴IVL Svenska Miljoeinsti-Tutet AB; ⁵Lietuvos Energetikos Institutas

GRA-1: 5

Discrete Part Manufacturing Energy Efficiency Improvements With Modelling and Simulation
Juhani Heilala¹, Marja Paju¹, Jari Montonen¹, Reino Ruusu¹, Mikel Sorli², Alberto Armijo², Pablo Bermell-Garcia³, Simon Astwood³, Santiago Quintana³
¹VTT, Finland; ²Tecnalia, Spain; ³EADS Innovation Works, UK

GRA-1: 6

Evaluation and Calculation of Dynamics in Environmental Impact Assessment
Björn Johansson, Jon Andersson, Erik Lindskog, Jonatan Berglund, Anders Skoogh
Production Systems, Chalmers University of Technology, Sweden

GRA-1: 7

A parallelizable heuristic for solving the Generic Materials & Operations Planning in a Supply Chain Network: a case study from the automotive industry
Julien Maheut¹, Jose Pedro García-Sabater²
¹Universidad Politecnica de Valencia, Spain; ²Universidad Politecnica de Valencia, Spain
MSC-1: Manufacturing and Supply Chain in a Mass Customization Environment - 1

Time: Tuesday, 25/Sep/2012: 10:30am - 12:50pm · Location: R2-NAUSICA-B
Session Chair: Golboo Pourabdollahian
Session Chair: Richard Lee Storch

MSC-1: 1
Modeling a Large Scale Production System Considering Mass Customization and Learning Curve
KuoWei Chen, Richard Lee Storch
University of Washington, United States of America

MSC-1: 2
Event-Driven Order Rescheduling Model for Just-In-Sequence Deliveries to a Mixed-Model Assembly Line
Georg Heinecke1,2, Jonathan Köber3, Steffen Lamparter1, Raffaello Lepratti1, Andreas Kunz2
1Siemens AG, Germany; 2ETH Zurich, Switzerland; 3CLAAS Selbstfahrende Erntemaschinen GmbH, Germany

MSC-1: 3
An Empirical Based Proposal for Mass Customization Business Model in Footwear Industry
Golboo Pourabdollahian, Donatella Corti, Chiara Galbusera, Julio Cesar Kostycz Silva
Politecnico di Milano, Italy

MSC-1: 4
Support to order management and collaborative production of customised goods for specific target groups
Eva Alessandra Coscia1, Michele Sesana1, Rosanna Fornasiero2
1TXT e-solutions, Italy; 2ITIA-CNR, Italy

MSC-1: 5
Modeling and simulation tool for sustainable MC supply chain design and assessment
Paolo Pedrazzoli, Marino Alge, Andrea Bettoni, Luca Canetta
SUPSI, Switzerland

MSC-1: 6
Simulation-based design of production networks for manufacturing of personalised products
Dimitris Mourtzis, Michalis Doukas, Foivos Psarommatas
Laboratory for Manufacturing Systems and Automation (LMS), University of Patras, Greece, Greece

MSC-1: 7
Agent Based Resources Allocation in Job Shop with Re-entrant Features: A Benchmarking Analysis
Matteo Savino, Antonio Mazza
University of Sannio, Italy
SMS-1: Service Manufacturing Systems - 1

Time: Tuesday, 25/Sep/2012: 10:30am - 12:50pm · Location: R4-NEFELI-B
Session Chair: Toshiya Kaihara
Session Chair: Nobutada Fujii

SMS-1: 1
Multiagent System-based Simulation Method of Service Diffusion in Consumer Networks --
Application to repeatedly purchased plural services --
Nobutada Fujii, Toshiya Kaihara, Tomoya Yoshikawa
Kobe University, Japan

SMS-1: 2
A Choice Experiment for Air Travel Services
Kenju Akai¹, Keiko Aoki², Nariaki Nishino³
¹The University of Tokyo, Japan; ²Osaka University, Japan

SMS-1: 3
Improvement Method of Service Productivity for Taxi Company
Takashi Tanizaki
Kinki University, Japan

SMS-1: 4
PSS Production Systems: a simulation approach for change management
Guillaume Marquès, Xavier Boucher, Malik Chalal
Ecole Nationale Supérieure des Mines de Saint-Etienne, France

SMS-1: 5
Improving Customer’s subjective waiting time using Digital Signage
Takeshi Shimmura¹, Toshiya Kaihara², Nobutada Fuzii², Takeshi Takenaka¹
¹National Institute of Advanced Industrial Science and Technology, Japan; ²Graduate School of
System Informatics, Kobe University, Japan

SMS-1: 6
Do Consumers Select Food Products Based on Carbon Dioxide Emissions?
Keiko Aoki, Kenju Akai
Osaka University, Japan

SMS-1: 7
The “Servitization” of manufacturing: A methodology for the development of after-sales services
Daryl Powell¹, Ottar Bakås², Barbara Resta³, Paolo Gaiardelli³
¹Norwegian University of Science and Technology, Norway; ²SINTEF Operations Management,
Norway; ³Università degli studi di Bergamo, Italy
DMS-1: Design of Manufacturing Systems - 1

Time: Tuesday, 25/Sep/2012: 2:00pm - 3:40pm · Location: R3-NEFELI-A
Session Chair: Alexandre Dolgui
Session Chair: Olga Battaia

DMS-1: 1
A Stochastic Formulation of the Disassembly Line Balancing Problem
Mohand Lounes Bentaha, Olga Battaia, Alexandre Dolgui
EMSE, France

DMS-1: 2
Incorporating Regularity of Required Workload to the MMSP-W with Serial Workstations and Free Interruption of the Operations
Joaquin Bautista Valhondo, Rocio Alfaro Pozo, Alberto Cano Perez
Universitat Politècnica de Catalunya, Spain

DMS-1: 3
Incorporating Ergonomics Factors into the TSALBP
Joaquin Bautista Valhondo, Cristina Batalla Garcia, Rocio Alfaro Pozo
Nissan Chair, Universitat Politècnica de Catalunya, Spain

DMS-1: 4
Critical factors for successful user-supplier integration in the production system design process
Jessica Bruch, Monica Bellgran
Mälardalen University, Sweden
EEM-3: Energy Efficient Manufacturing - 3

Time: Tuesday, 25/Sep/2012: 2:00pm - 3:40pm  ·  Location: R1-NAUSICA-A

Session Chair: Juhani Heilala

EEM-3: 1
Energy-efficient machining via energy data integration
Tao Peng¹, Xun Xu¹, Juhani Heilala²
¹University of Auckland, New Zealand; ²VTT, Finland

EEM-3: 2
An approach for energy saving in the compound feed production
Marc Redecker
University of Bremen, Germany

EEM-3: 3
Bridging the gap between energy management systems and machine tools – Embedded energy efficiency in production planning and control
Manuel Rippel, Olga Willner, Johannes Plehn, Paul Schoensleben
ETH Zurich, Switzerland

EEM-3: 4
Energy Efficient Production Planning: A Joint Cognitive Systems Approach
Connor Upton¹, Fergus Quilligan², Carlos A. García-Santiago³, Asier González-González³
¹Intel Labs Europe; ²Irish Centre for Manufacturing Research; ³Tecnalia

EEM-3: 5
Using Internet of Things to improve eco-efficiency in Manufacturing: a review on available knowledge and a framework for IoT adoption
Fadi Moh’d Shrouf, Giovanni Miragliotta
Politecnico di Milano, Italy
PMO-1: Production Management, Operations & Logistics - 1

Time: Tuesday, 25/Sep/2012: 2:00pm - 3:40pm  ·  Location: R2-NAUSICA-B
Session Chair: Eiji Arai
Session Chair: Jan Frick

PMO-1: 1
Tactical and Operational Issues in a Hybrid MTO-MTS Production Environment; the Case of Food Production
Anita Romsdal¹, Emrah Arica¹, Jan Ola Strandhagen², Heidi Carin Dreyer¹
¹Norwegian University of Science and Technology, Norway; ²SINTEF Technology and Society, Norway

PMO-1: 2
A Basic Study on Highly Distributed Production Scheduling
Eiji Arai, Eiji Morinaga, Hidefumi Wakamatsu
Osaka University, Japan

PMO-1: 3
One-of-a-Kind Production (OKP) planning & control: an empirical framework for the Special Purpose Machines Industry
Federico Adrodegari¹, Andrea Bacchetti¹, Alessandro Sicco¹, Fabiana Pirola², Roberto Pinto²
¹University of Brescia, Italy; ²CELS - Department of Industrial Engineering, University of Bergamo, Italy

PMO-1: 4
A note on the simple exponential smooth non-optimal predictor, the order-up-to policy and how to set a proper bullwhip effect
Erland Hejn Nielsen
Aarhus University, Faculty of Business and Social Sciences, Denmark

PMO-1: 5
A concept for project manufacturing planning and control for engineer-to-order companies
Pavan Kumar Sriram, Erlend Alfnes, Emrah Arica
Norwegian University of Science and Technology, Norway
SMS-2: Service Manufacturing Systems - 2

Time: Tuesday, 25/Sep/2012: 2:00pm - 3:40pm · Location: R4-NEFELI-B
Session Chair: Bruno Vallespir

SMS-2: 1
Framework for Lean Management in Industrial Services
Günter Schuh, Philipp Christoph Stüer
FIR Institute for Industrial Management at the RWTH Aachen University, Germany

SMS-2: 2
Contribution to the development of a conceptual model of service and service delivery
Wael Touzi, Thecle Alix, Bruno Vallespir
IMS University of Bordeaux, France

SMS-2: 3
Manufacturing Service Innovation Ecosystem
Marco Taisch, Mohammadreza Heydari Alamdari
Politecnico di Milano, Italy

SMS-2: 4
Manufacturing Service Ecosystems: Towards a new model to support service innovation based on Extended Products
Stefan Wiesner¹, Ingo Westphal¹, Manuel Hirsch², Klaus-Dieter Thoben¹
¹Bremer Institut für Produktion und Logistik GmbH, Germany; ²DITF-MR, Germany

SMS-2: 5
Product-Service Systems modeling and simulation as a strategic diagnosis tool
Thecle Alix, Gregory Zacharewicz
IMS University of Bordeaux, France

PS-4: Plenary Session 4

Time: Tuesday, 25/Sep/2012: 09:00am - 11:00am · Location: Salon de Roses
Session Chair: Marco Garetti

PS-4
Keynote talk 5:
"Energy management operations in shipping industry",
Takis Varelas, DANAOS

Keynote talk 6:
"The FoF PPP call in WP2013 and future opportunities for manufacturing R&I in Horizon2020",
Andrea Gentili, European Commission
ADM-1: Advanced Design, Manufacturing and Production Management - 1

Time: Tuesday, 25/Sep/2012: 5:30pm - 7:10pm · Location: R3-NEFELI-A
Session Chair: Katsuhiko Takahashi
Session Chair: Lenka Landryova

ADM-1: 1
Universal simulation model in Witness software for verification and following optimization of the handling equipment
Jiri Holik, Lenka Landryova
VSB - Technical University of Ostrava, Czech Republic

ADM-1: 2
Understanding Product State Relations within Manufacturing Processes
Benjamin Knoke, Wuest Thorsten, Thoben Klaus-Dieter
BIBA - Bremer Institut für Produktion und Logistik GmbH, Germany

ADM-1: 3
An Adaptive Kanban and Production Capacity Control Mechanism
Léo Le Pallec Marand, Yo Sakata, Daisuke Hirotani, Katsumi Morikawa, Katsuhiko Takahashi
Hiroshima University, Japan

ADM-1: 4
Current state and future perspective research on the lean remanufacturing – focusing on the automotive industry
Elzbieta Pawlik, Winifred Ijomah, Jonathan Corney
University of Strathclyde, United Kingdom

ADM-1: 5
Cost management practices in collaborative product development processes
Carlos Barbosa, Paulo Afonso, Manuel Nunes
University of Minho, Portugal
A Design of Experiments Approach to Investigating the Sensitivity of the Re-Order Point Method

Peter Nielsen¹, Giovanni Davoli², Izabela Nielsen¹, Niels Gorm Rytter¹
¹Aalborg University, Denmark; ²University of Modena and Reggio, Italy

Perishable Inventory Control

Cecilie M. Damgaard, Vivi T. Nguyen, Hans-Henrik Hvolby, Kenn Steger-Jensen
Centre for Logistics, Aalborg University, Denmark

Practical considerations about error analysis for discrete event simulations model

Giovanni Davoli¹, Peter Nielsen², Gabriele Pattarozzi¹, Riccardo Melloni¹
¹University of Modena and Reggio Emilia, Italy; ²Aalborg University, Denmark

Challenges of Measuring Revenue, Margin and Yield Optimization in Container Shipping

Albert Gardon¹, Peter Nielsen¹, Niels Gorm Maly Rytter²
¹Aalborg University, Denmark; ²Aalborg University Copenhagen, Denmark

Improving port terminal operations through information sharing

Peter Bjerg Olesen, Iskra Dukovska-Popovska, Hans-Henrik Hvolby
Aalborg University, Denmark
PRM-1: Performance and Risk Management - 1

Time: Tuesday, 25/Sep/2012: 5:30pm - 7:10pm · Location: R4-NEFELI-B

Session Chair: Peter Almström
Session Chair: Stefan Hesse

PRM-1: 1
Reference model concept for structuring and representing performance indicators in manufacturing
Bernhard Wolf¹, Stefan Hesse¹, Martin Rosjat¹, George Pintzos², Drazen Nadoveza³
¹SAP AG, Germany; ²University of Patras; ³cole polytechnique fédérale de Lausanne EPFL

PRM-1: 2
Modeling and Presentation of Interdependencies between Key Performance Indicators for Visual Analysis Support
Stefan Hesse, Volodymyr Vasyutynskyy, Martin Rosjat, Christian Hengstler
SAP Research Dresden, SAP AG, Germany

PRM-1: 3
Performance Measurement and Decision support systems for Craft oriented small enterprises
Inger Gamme¹, Eva Amdahl Seim², Eirin Lodgaard³
¹Høgskolen i Gjøvik, Norway / NTNU - Norwegian University of Science and Technology; ²NTNU - Norwegian University of Science and Technology; ³SINTEF Raufoss Manufacturing / NTNU - Norwegian University of Science and Technology

PRM-1: 4
State-of-the-art review on operational resilience: concept, scope and gaps
Seyoum Eshetu Birkie¹,², Paolo Trucco¹, Matti Kaulio²
¹Politecnico di Milano, Italy; ²Royal Institute of Technology, Sweden

PRM-1: 5
Productivity measurement and improvements: A theoretical model and applications from the manufacturing industry
Peter Almström
Chalmers University of Technology, Sweden
SVC-1: Sustainable Value Creation in Manufacturing - 1

Time: Tuesday, 25/Sep/2012: 5:30pm - 7:10pm · Location: R1-NAUSICA-A
Session Chair: Marco Macchi
Session Chair: Steve Evans

SVC-1: 1
Toward sustainability governance in manufacturing networks
Teuvo Uusitalo, Markku Reunanen, Katri Valkokari, Pasi Valkokari, Katariina Palomäki
VTT Technical Research Centre of Finland, Finland

SVC-1: 2
Implementation of Sustainability in Ongoing Supply Chain Operations
Liliyana J. Makarova, Peter M. Jensen, Brian V. Waehrens
Aalborg University, Denmark

SVC-1: 3
Embedding sustainability in business modelling through multi-stakeholder value innovation
Samuel Short, Padmakshi Rana, Nancy Bocken, Steve Evans
University of Cambridge, United Kingdom

SVC-1: 4
Business Modelling for Sustainable Manufacturing
Padmakshi Rana¹, Sam Short¹, Steve Evans¹, Maria Holgado Granados², Donatella Corti², Marco Macchi²
¹University of Cambridge, UK; ²Politecnico di Milano, Italy

SVC-1: 5
Modular framework for reliable LCA-based indicators supporting supplier selection within complex supply chains
Carlo Brondi¹, Rosanna Fornasiero¹, Manfredi Vale², Ludovico Vidali¹, Federico Brugnoli³
¹ITIA-CNR, Italy; ²Aghetera Environment & Development; ³Synesis Consortium

Time: Wednesday, 26/Sep/2012: 8:30am - 10:50am · Location: R2-NAUSICA-B
Session Chair: Hajime Mizuyama
Session Chair: Marco Semini

ADM-2: 1
Design and Simulation-Based Testing of a Prediction Market System Using SIPS for Demand Forecasting
Hajime Mizuyama
Aoyama Gakuin University, Japan

ADM-2: 2
Optimisation of Flexible Assembly Systems for Electrical Motors
Mirlind M Bruti1, Ramë Likaj1, Jorgaq Kaqani2
1Faculty of Mechanical Engineering, Kosovo; 2Polytechnic University of Tirana

ADM-2: 3
Flexible and Reconfigurable Layouts in Complex Manufacturing Systems
Maria Manuela Azevedo1,2, José António Crispim2,3, Jorge Pinho de Sousa1,2
1Faculty of Engineering, University of Porto, Porto, Portugal; 2INESC TEC, Porto, Portugal; 3School of Economics and Management, University of Minho, Braga, Portugal

ADM-2: 4
The multidisciplinary virtual product development integrates the influence of die casting defects in the mechanical response
Nicola Gramegna1, Íñigo Loizaga2, Susana Berrocal Ovejero2, Franco Bonollo3, Giulio Timelli3, Stefano Ferraro3
1Enginsoft S.p.A., Italy; 2FUNDACION CIE, Spain; 3University of Padova - DTG, Italy

ADM-2: 5
Splitting or sharing resources at the process level: An automotive industry case study
Dag E. Gotteberg Haartveit1, Marco Semini1, Erlend Alfløes2
1SINTEF Industrial Management, Norway; 2Norwegian University of Science and Technology, Department of Production and Quality Engineering, Norway

ADM-2: 6
Evaluation of Lean Thinking Based Production Control Systems: A Literature Survey
Canan Ağlan
İstanbul Technical University, Turkey

ADM-2: 7
Intelligent Manufacturing Systems: Controlling Elastic Springback in Bending
Torgeir Welo
NTNU, Norway
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<th>Session</th>
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<td>HFI-1</td>
<td>Innovating business model for services with storytelling</td>
<td>Morten Lund, Aalborg Universitet, Denmark</td>
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<td>HFI-1</td>
<td>The Internet of Experiences –Towards an Experience-Centred Innovation Approach</td>
<td>Stefan Wellsandt¹, Thorsten Wuest¹, Christopher Durugbo², Klaus-Dieter Thoben¹</td>
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<td>¹Bremer Institut für Produktion und Logistik GmbH - BIBA, Germany; ²University of Bristol, United Kingdom</td>
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<td>HFI-1</td>
<td>Analysis of the effects of quality management system on the business performances: case study on pharmaceutical industry in Serbia</td>
<td>Vidosav Majstorovic¹, Tatjana Sibalija², Valentina Marinkovic³</td>
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<td>¹Faculty of Mechanical Engineering, University of Belgrade; ²Faculty of Engineering International Management, European University, Belgrade, Serbia; ³Faculty of Pharmacy, University of Belgrade</td>
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<td>HFI-1</td>
<td>Measurement, classification and evaluation of the innovation process and the identification of indicators regarding the assessment of a company’s innovation zone</td>
<td>Peter Kubičko¹, Lenka Landryová², Roman Mihal¹, Iveta Zolotová¹</td>
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<td>¹Department of Cybernetics and Artificial Intelligence, Technical University Kosice, Letná 9/A, Kosice, the Slovak Republic; ²Department of Control Systems and Instrumentation, VSB Technical University Ostrava, 17.listopadu 15, Ostrava, the Czech Republic</td>
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<tr>
<td>HFI-1</td>
<td>Success factors for PDCA as continuous improvement method in product development</td>
<td>Eirin Lodgaard¹, Inger Gamme²</td>
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<td>¹SINTEF Raufoss Manufacturing AS, Norway; ²Gjøvik University College</td>
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<td>HFI-1</td>
<td>International R&amp;D and manufacturing networks: Dynamism, Structure and Absorptive Capacity</td>
<td>Patricia Deflorin¹, Maike Scherrer-Rathje², Helmut Dietl¹</td>
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<td>¹University of Zurich, Switzerland; ²University of St.Gallen</td>
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<td>HFI-1</td>
<td>Supporting production system development through the Obeya concept</td>
<td>Siavash Javadi, Sasha Shahbazi, Mats Jackson</td>
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<td>Mälardalen university, Sweden</td>
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PAL-2: Product and Asset Lifecycle Management - 2

Time: Wednesday, 26/Sep/2012: 8:30am - 10:50am · Location: R1-NAUSICA-A
Session Chair: Agostino Villa

PAL-2: 1

Enterprise information systems’ interoperability: Focus on PLM challenges
Dorsaf Elheni-Daldoul1,2, Julien Le Duigou1, Benoît Eynard1, Sonia Hajri-Gabouj2
1Université de Technologie de Compiegne, France; 2Institut National des Sciences Appliquées et de Technologie, Tunisie

PAL-2: 2

Concept and Modelling of Closed-Loop Life Cycle Management for Lightweight Solution
Fatih Karakoyun, Dimitris Kiritsis
EPFL, Switzerland

PAL-2: 3

Full exploitation of Product Lifecycle Management by integrating static and dynamic viewpoints
Dario Antonelli1, Giulia Bruno1, Antonia Schwichtenberg2, Agostino Villa1
1Politecnico di Torino, Italy; 2Ontoprise GmbH, Germany

PAL-2: 4

Implementing Sustainable Supply Chain in PLM
Maria Bonveh Rosich1, Julien Le Duigou2, Magali Bosch-Mauchand2
1Universitat Politècnica de Catalunya – ETSEIB, Spain; 2Université de Technologie de Compiegne, France

PAL-2: 5

MDE approach for PLM system reconfiguration
Onur Yildiz2, lilia Gzara2, Philippe Pernelle1, Michel Tollenaere2
1laboratory DISP - University of Lyon 1, France; 2laboratory G-SCOP - INP Grenoble, France

PAL-2: 6

Dynamic Alarm Management in Next Generation Process Control Systems
Eva Jerhotova, Petr Stluka, Marek Sikora
Honeywell, Czech Republic

PAL-2: 7

Review of implementation of FMEA methodology in the development of information systems
Marcelo Henrique, Jose Abel Baptista, Paulo Cristiano Oliveira, Paulo Ramirez, Luciane Ribeiro
Unip, Uninove e Unicastelo University, Brazil
SUS-1: Business Strategies, Models and Sustainability - 1

Time: Wednesday, 26/Sep/2012: 8:30am - 10:50am · Location: R3-NEFELI-A
Session Chair: Vito Albino
Session Chair: Gunduz Ulusoy

SUS-1: 1
Sustainable Food Supply Chains: Towards a Framework for Waste Identification
Lukas Chabada¹, Heidi Carin Dreyer¹, Daryl John Powell¹, Anita Romsdal²
¹Norwegian University of Science and Technology, Trondheim, Norway; ²SINTEF Technology & Society, Trondheim, Norway

SUS-1: 2
Classification of Industrial Symbiosis Systems: A focus on materials and energy recovery
Vincenzo Alessio Romano, Vito Albino, Achille Claudio Garavelli
Polytechnic of Bari, Italy

SUS-1: 3
Sizing energy efficiency research opportunities in the ceramic tile production system
Jose Antonio Heredia Alvaro
Universitat Jaume I, Spain

SUS-1: 4
Performance Evaluation in Sustainability Conscious Manufacturing Companies by Using TOPSIS Method
Merve Kilic, Seren Ozmehmet Tasan
Dokuz Eylul University, Turkey

SUS-1: 5
Design of controlling for supporting continuous improvement and sustainability of manufacturing enterprises
Eryk Głodziński
Warsaw University of technology, Poland

SUS-1: 6
Business Strategy and Innovativeness: Results from an Empirical Study
Gunduz Ulusoy¹, Gurhan Gunday¹, Kemal Kilic¹, Lutfihak Alpkan²
¹Sabanci University, Turkey; ²Gebze Insitute of Technology
AML-1: Application of Modern Learning Technologies in Manufacturing and Production Systems - 1

Time: Wednesday, 26/Sep/2012: 11:10am - 1:10pm · Location: R1-NAUSICA-A
Session Chair: Borzoo Pourabdollahian
Session Chair: Philippe Pernelle

AML-1: 1
The Use of Serious games in the education of Engineers
Jannicke Madeleine Baalsrud Hauge, Borzoo Pourabdollahian, Johann c.k.h. Riedel
1University of Bremen, Bremen, Germany; 2Politecnico di Milano, Milan, Italy; 3Nottingham University Business School, Nottingham, UK

AML-1: 2
Using Behavioural Indicators to Assess Competences in a Sustainable Manufacturing Learning Scenario
Heiko Duin, Gregor Cerinsek, Manuel Oliveira, Michael Bedek, Slavko Dolinsek
1BIBA - Bremer Institut für Produktion und Logistik GmbH, Germany; 2IRI UL; 3SINTEF; 4Graz University of Technology

AML-1: 3
Applying serious games in lean manufacturing training
Mourad Messaadia, Ahmed Bufardi, Julien Le-Duigou, Hadrien Szigeti, Benoît Eynard, Dimitris Kiritsis
1UTC, France; 2EPFL, Switzerland; 3Dassault Système, France

AML-1: 4
Flow and Physical Objects in Experiential Learning for Industrial Engineering Education
David Jentsch, Riedel Ralph, Egon Müller
Chemnitz University of Technology, Germany

AML-1: 5
Learning PLM system with a Serious Game
Philippe Pernelle, Thibault Carron, Jean-Charles Marty, Stephane Talbot
1laboratory DISP - University of Lyon 1, France; 2Laboratory LIP6 - Paris, France; 3Laboratory LIRS - Lyon, France; 4University of Savoie, France

AML-1: 6
Model of skills development at the operational level applied to the steel industry
Ulysses Martins, Ulysses Moreira Filho, Pedro Luiz Oliveira Costa Neto
1Universidade Paulista, Brazil; 2Universidade Paulista, Brazil
EII-1: Enterprise Integration and Interoperability - 1

Time: Wednesday, 26/Sep/2012: 11:10am - 1:10pm · Location: R2-NAUSICA-B
Session Chair: Athanasios P. Kalogeras
Session Chair: Gabriela Patricia Henning

EII-1: 1
Towards Changeable Production Systems – Integration of the Internal and External Flow of Information as an Enabler for Real-Time Production Planning and Controlling
Volker Stich, Niklas Hering, Stefan Kompa, Ulrich Brandenburg
FIR at RWTH Aachen University, Germany

EII-1: 2
Integrated model-based manufacturing for rapid product and process development
Vesna Mandic1, Radomir Radisa2, Vladan Lukovic1, Milan Curcic1
1Faculty of Engineering, University of Kragujevac, Serbia; 2Lola Institute, Belgarde, Serbia

EII-1: 3
Real-time production monitoring in large heterogeneous environments
Arne Schramm, Bernhard Wolf, Raik Hartung, André Preußner
SAP, Germany

EII-1: 4
Ontology-based flexible multi agent systems design and deployment for vertical enterprise integration
Christos Alexakos1, Manos Georgoudakis2, Athanasios Kalogeras2, Spiridon Likothanassis1
1University of Patras, Greece; 2Industrial System Institute, Greece

EII-1: 5
MANU Building – bringing together manufacturing automation and building automation
Aleksey Bratuhkin, Albert Treytl, Thilo Sauter
Austrian Academy of Sciences, Austria

EII-1: 6
Formal specification of batch scheduling problems: A step toward integration and benchmarking
Gabriela Patricia Henning
Universidad Nacional del Litoral, Argentine Republic
ROB-1: Robotics in Manufacturing

Time: Wednesday, 26/Sep/2012: 11:10am - 1:10pm · Location: R4-NEFELI-B
Session Chair: Rosanna Fornasiero
Session Chair: Kenn Steger-Jensen

ROB-1: 1
New automated production system for the footwear industry and impact on production performance and on company organization
Silvio Cocuzza¹, Rosanna Fornasiero², Stefano Debei¹
¹CISAS - University of Padova, Padova, Italy; ²ITIA-CNR, Milan, Italy

ROB-1: 2
Multi-objective Mobile Robot Scheduling Problem with Dynamic Time Windows
Quang-Vinh Dang, Izabela Nielsen, Kenn Steger-Jensen
Aalborg University, Denmark

ROB-1: 3
Safety-guided design concerning standardization’s requirements of mowing robots
Spyridon Mouroutsos, Eleftheria Mitka
Democritus University of Thrace, Greece

ROB-1: 4
Multi-camera 3D object reconstruction for industrial automation
Malamati Bitzidou, Dimitrios Chrysostomou, Antonios Gasteratos
Democritus university of Thrace, Greece

ROB-1: 5
Multimodal processes rescheduling
Grzegorz Bocewicz¹, Zbigniew Banaszak³, Peter Nielsen², Vinh Quang Dang²
¹Koszalin University of Technology; ²Aalborg University, Dept. of Mechanical and Manufacturing Engineering; ³Warsaw University of Technology, Faculty of Management
SIP-1: Sustainable innovations in products and services in developing countries - 1

Time: Wednesday, 26/Sep/2012: 11:10am - 1:10pm · Location: R3-NEFELI-A

Session Chair: Irenilza Nääs

SIP-1: 1

Building a conceptual model for analyzing sustainability projects aiming at technology transfer: a terminological approach
Deise Rocha Martins dos Santos Oliveira¹², Irenilza de Alencar Nääs¹, Ivo Pierozzi Júnior², Oduvaldo Vendrametto¹
¹Paulista University - UNIP, Brazil; ²Embrapa Agricultural Informatics, Brazil

SIP-1: 2

A case study on the benefits that virtualization provides the IT and its positive impact on the environment
Andréa Martins Cristóvão¹, Ivanir Costa¹, Antonio Palmeira Araujo Neto¹, Cao Ji Can²
¹Universidade Paulista, Brazil 1; ²Universidade de São Paulo 2

SIP-1: 3

The Influence of the Sustainability over the Information Technology Governance Process
Antônio Palmeira Araújo Neto, Ivanir Costa, Andréa Martins Cristóvão, Valdir Morales
Paulista University, Brazil

SIP-1: 4

Impact of the tasks of maintenance function in corporate sustainability: An empirical study on Brazilian steel mills
José Barrozo de Souza¹, José Benedito Sacomano², Fábio Paparlado³
¹Universidade Paulista - UNIP, Brazil; ²Universidade Paulista - UNIP, Brazil; ³Universidade Paulista - UNIP, Brazil

SIP-1: 5

Development of Engineering Competences in Brazil and Innovation Policies, an Overview of the Automotive Sector
Renato Perrotta, Oduvaldo Vendrametto
UNIP - Paulista University, Brazil

SIP-1: 6

Issues of sustainability on the Brazilian broiler meat production chain
Irenilza Nääs, Deise Oliveira, Mario Mollo Neto, Simone Canuto, Robert Waker, Oduvaldo Vendrametto
Paulista University-UNIP, Brazil
AML-2: Application of Modern Learning Technologies in Manufacturing and Production Systems - 2

*Time:* Wednesday, 26/Sep/2012: 2:20pm - 4:00pm · *Location:* R1-NAUSICA-A

*Session Chair:* Julien Le Duigou

AML-2: 1

**Beware of the robot: a highly interactive and immersive Virtual Reality training application in robotic manufacturing systems**

Elias Matsas¹, Dimitrios Batras², George-Christopher Vosniakos¹

¹NATIONAL TECHNICAL UNIVERSITY OF ATHENS, Greece; ²ARTS ET METIERS PARISTECH, LAVAL, France

AML-2: 2

**Lean Product Development: Serious Game Design and Evaluation of the Learning Outcomes**

Endris Kerga¹, Marco Tasich¹, Sergio Terzi², Monica Rossi¹

¹POLIMI, Italy; ²Università degli Studi di Bergamo, Italy

AML-2: 3

**Educational framework of Product Lifecycle Management issues for Master and PhD study programmes**

Milan EDL

University of West Bohemia, Czech Republic

AML-2: 4

**Context Aware E-Support in E-Maintenance**

Nikos Papathanasiou¹, Christos Emmanouilidis², Petros Pistofidis¹, Dimitris Karampatzakis²

¹Democritus University of Thrace, Greece; ²ATHENA Research & Innovation Centre, Greece

AML-2: 5

**Integrating competence management into a coupled project-system design management**

Arz Wehbe¹, Christophe Merlo¹,², Veronique Pilniere²,³

¹IMS - Bordeaux University, France; ²ESTIA, France; ³CREG-UPPA, France
ICT-2: ICT for Manufacturing, Services, Logistics and Production Management - 2

Time: Wednesday, 26/Sep/2012: 2:20pm - 4:00pm · Location: R2-NAUSICA-B
Session Chair: Henk Jan Pels
Session Chair: Jinwoo Park

ICT-2: 1
Analysing IT supported production control by relating Petri Nets and UML static structure diagrams
Henk Jan Pels
Technische Universiteit Eindhoven, Netherlands, The

ICT-2: 2
MES Support for Lean Production
Daryl Powell, Emrah Arica, Andreas Binder
Norwegian University of Science and Technology, Norway

ICT-2: 3
Analysis of the Underlying Factors for Applicability and Practicality of the Production Control Systems
EMRAH ARICA¹, JAN OLA STRANDHAGEN¹, HANS HENRIK HVOLBY²
¹Norwegian University of Science and Technology, Norway; ²Aalborg University

ICT-2: 4
Designing Integrated Data System for Remanufacturing with Radio Frequency Identification Technology
Young-woo Kim, Jinwoo Park
Seoul National University, Korea, Republic of (South Korea)

ICT-2: 5
Emerging Smart Engineering: An Integrated Manufacturing and Management System
Jozef Bogdan Lewoc¹, Antoni Izworski Izworski², Slawomir Feliks Skowronski², Antonina Kieleczawa³, Peter Kopacek⁴
¹BPBiT Leader (Leading Designer), Poland; ²Wroclaw University of Technology; ³IASE, Wroclaw; ⁴Vienna University of Technology
PMO-3: Production Management, Operations & Logistics - 3

Time: Wednesday, 26/Sep/2012: 2:20pm - 4:00pm · Location: R4-NEFELI-B

Session Chair: Nikolaos A. Panayiotou
Session Chair: Ilias Tatsiopoulos

PMO-3: 1
Assessing the impact of management concerns in e-business requirements planning in manufacturing organisations
Ashok Kumar Kochhar
Aston University, United Kingdom

PMO-3: 2
Supporting the Design of a Management Accounting System of a Company Operating in the Gas Industry with Business Process Modeling
Nikolaos A. Panayiotou, Ilias P. Tatsiopoulos
National Technical University of Athens, Greece

PMO-3: 3
Base stock inventory systems with compound Poisson demand: case of partial lost sales
M. Zied BABAI, Zied Jemai, Yves Dallery
1BEM-Bordeaux Management School, France; 2LGI-Ecole Centrale Paris

PMO-3: 4
Improved Spare Parts Demand Management via Aggregation
Z. Babai, Yiannis Polychronakis, B.T. Rostami, N. Saccani, A.A. Syntetos
1Bordeaux Management School, France; 2University of Salford, United Kingdom; 3University of Brescia, Italy
SIP-2: Sustainable innovations in products and services in developing countries - 2

Time: Wednesday, 26/Sep/2012: 2:20pm - 4:00pm · Location: R3-NEFELI-A
Session Chair: Pedro Luiz de Oliveira Costa Neto

SIP-2: 1
Private and public partnership: sustainable green actions in Brazil
Dalton Oswaldo Buccelli, Pedro Luiz de Oliveira Costa Neto
Paulista University, Production Engineering Graduate Program

SIP-2: 2
Marcelo Nogueira¹, Ricardo J. Machado²
¹Software Engineering Research Group, University Paulista, UNIP, Brazil; ²ALGORITMI Center, School of Engineering, University of Minho, Portugal

SIP-2: 3
Finding Optimal Resources for IT Services
Sumit Raut, Muralidharan Somasundaram
TCSL, India

SIP-2: 4
The importance of Brazilian legislation for the improvement of Quality of Life
Aline Rodrigues Sacomano, Pedro Luiz de Oliveira Costa Neto
Paulista University Production Engineering Graduate Program

SIP-2: 5
Holistic Vision of Sustainability in the Production Chain in Oil Exploration Pre-Salt Layer
Alessandro Luiz da Silva, Mônica Franchi Carniello, Jose Luis Gomes da Silva
Universidade of Taubaté, Brazil

CS: Closing Session - Awards

Time: Wednesday, 26/Sep/2012: 16:15am - 17:00am · Location: NAUSICA-A
Christos Emmanouilidis: Closing Remarks
Marco Taisch and Dimitris Kiritsis: Burbidge Awards
Professor John Burbidge was an active and prominent member of the IFIP WG 5.7 group. In order to celebrate a lifetime of achievement and contribution to the field of Integrated Production Management, in 1995 the group decided to institute the Burbidge Award in recognition of excellence in research.

The Burbidge Awards are awarded at the group’s annual conferences

- to the author(s) of the best paper
- the person(s) made the best presentation

In making the awards the following criteria is used:

**The best paper**

- news value and interest
- relevance in relation to practice
- argumentation, evidence
- scope of the paper regarding the conference
- typography and aesthetics

**The best presentation**

- winning the audience
- structuring the presentation
- clearness and understandability
- quality of AV-aids
- answering questions
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