



APMS 2013 INTERNATIONAL CONFERENCE
ADVANCES IN PRODUCTION MANAGEMENT SYSTEMS

Sustainable Production and Service Supply Chains

September 9 -12, 2013 State College, PA

Date: Monday, 09/Sep/2013

9:00am - 5:15pm	Mon1: APMS Doctoral Workshop (Sponsor: Electro-Optics Center). By Invitation Only Session Chair: Sergio Cavalieri Opening Remarks by Karl Harris, Director, Electro-Optics Center, Penn State
203	
5:30pm - 7:00pm	WG5.7-Assoc.: IFIP Working Group 5.7 Associates Meeting Session Chair: Bojan Stahl Session Chair: Gökan May The IFIP WG5.7 Associates is a platform for PhD students related to Operations and Supply Chain Management to stimulate their talent, networking, and career building.
203	
6:00pm - 7:00pm	WG5.7: IFIP Working Group 5.7 Meeting - By Invitation Only Session Chair: Marco Taisch Session Chair: Dimitris Kiritsis
206	
7:00pm - 8:30pm	Welcome Reception (Sponsor: NABCO, Inc.)
President's Hall 3 and 4	

Date: Tuesday, 10/Sep/2013

7:00am - 9:00am	Continental Breakfast
President's Hall 3 and 4	
8:00am - 9:30am	Tue-Plenary: Plenary Session - Key Note Address Session Chair: Vittal Prabhu Session Chair: Marco Taisch Opening Remarks, Dr. Vittal Prabhu, Conference Chair, and Dr. Marco Taisch, Conference Co-Chair Welcom Address by Dr. Rodney A. Erickson, President of Penn State University "Economy, Efficiency, Sustainability: Drivers to Address the Challenges of Our Time" by Dr. Tom L. Richard, Director, Penn State Institutes of Energy and Environment
President's Hall 3 and 4	
9:30am - 10:00am	Break (Sponsor: Enterprise Integration Consortium)
Break Area	
10:00am - 12:00pm	Tue1-C1: Sustainable Manufacturing and Supply Chain Management for Renewable Energy (Special Session) Session Chair: Guiping Hu Session Chair: Evelyn Thomchick
203	
10:00am - 12:00pm	Tue1-S5: The Art of Balancing Innovation and Efficiency in Service Systems - The Challenge in Ambidextry (Special Session) Session Chair: Gerhard Gudergan Session Chair: Volker Stich
206	
10:00am - 12:00pm	Tue1-S1: Service Manufacturing Systems (Special Session) Session Chair: Toshiya Kaihara Session Chair: Takeshi Shimmura
211	
10:00am - 12:00pm	Tue1-I1: ICT-Enabled Integrated Operations (Special Session) Session Chair: Daryl John Powell Session Chair: Bernard Grabot
218	
12:00pm - 1:00pm	Lunch Break (Sponsor: Center for Supply Chain Research & Master of Professional Studies in Supply Chain Management)
President's Hall 3 and 4	
1:00pm - 3:00pm	Tue2-M2: Energy Efficient Manufacturing

203	Session Chair: Frederic Demoly Session Chair: Gökan May
1:00pm - 3:00pm	Tue2-C2: Interoperability in the Manufacturing and Supply Chain Services (Special Session)
206	Session Chair: Serm Kulvatunyou Session Chair: Christopher Peters
1:00pm - 3:00pm	Tue2-S2: Modeling of Business and Operational Processes
211	Session Chair: Harvey Millar Session Chair: Sergio Cavalieri
1:00pm - 3:00pm	Tue2-I2: Emerging and Innovative Technologies-1
218	Session Chair: Kenn Steger-Jensen Session Chair: Damien Trentesaux
3:00pm - 3:15pm	Break (Sponsor: Enterprise Integration Consortium)
Break Area	
3:15pm - 5:15pm	Sustainability Tour of Penn State Campus
	A guided tour of Penn State's campus highlighting education, research and service in the areas of power generation using natural gas, solar power, recycling, and the Factory for Advanced Manufacturing Education (FAME Lab). Board buses outside of President's Hall (conference wing). After tour, buses will return participants to The Penn Stater and Days Inn.
6:30pm - 10:00pm	Networking Reception and Networking Dinner (Sponsor: Kimberly-Clark Corporation)
	Featured Speaker: Dr. David Wormley, The Harold and Inge Marcus Dean of Engineering, Penn State University Buses will pick up at The Penn Stater (outside of President's Hall, conference wing) and Days Inn (parking lot) @ 6:30 pm to travel to dinner location and return by 10:00 pm.
Date: Wednesday, 11/Sep/2013	
7:30am - 9:00am	Continental Breakfast
President's Hall 3 and 4	
8:30am - 9:30am	Wed-Plenary: Plenary Session - Key Note Address
President's Hall 3 and 4	Session Chair: Dimitris Kiritsis Session Chair: Klaus-Dieter Thoben "Manufacturing Composite Structures: How sustainability drives complexity" by Dr. Vijay Srinivasan, Chief, Systems Integration Division, NIST
9:30am - 10:00am	Break
Break Area	
10:00am - 12:00pm	Wed1-M3: Manufacturing Networks for Mass Customization
202	Session Chair: Pisut Koomsap Session Chair: Stig Brink Taps
10:00am - 12:00pm	Wed1-I9: Emerging and Innovative Technologies-2
203	Session Chair: Jan Frick Session Chair: Rhythm Suren Wadhwa
10:00am - 12:00pm	Wed1-M4: Enablers for Smart Manufacturing-Panel (Special Session)
206	Session Chair: Evan K. Wallace Session Chair: Frank H Riddick
10:00am - 12:00pm	Wed1-S4: Simulation Based Training in Production and Operations Management (Special Session)
211	Session Chair: Avraham Shtub Session Chair: Alexander Sproedt
10:00am - 12:00pm	Wed1-I3: ICT for Manufacturing and Supply Chain Management-1
218	Session Chair: Christos Emmanouilidis Session Chair: Hajime Mizuyama
12:00pm - 1:00pm	Lunch Break (Sponsor: Intelligent Manufacturing Systems & World Manufacturing Forum)
President's Hall 3 and 4	
1:00pm - 3:00pm	Wed2-M6: Intelligent Production Systems and Planning Solutions for Sustainability -1 (Special Session)
202	Session Chair: Ralph Riedel Session Chair: David Jentsch
1:00pm - 3:00pm	Wed2-M5: Enablers for Smart Manufacturing
206	Session Chair: Johan Stahre Session Chair: Bojan Stahl

1:00pm - 3:00pm 211	Wed2-S3: Servicization Session Chair: Bruno Vallespir Session Chair: Samuel Gomes
1:00pm - 3:00pm 218	Wed2-I4: Sustainable Initiatives in Developing Countries-I (Special Session) Session Chair: Irenilza de Alencar Nääs Session Chair: Renato Perrotta
3:00pm - 3:15pm Break Area	Break
3:15pm - 5:15pm 202	Wed3-M7: Intelligent Production Systems and Planning Solutions for Sustainability-2 (Special Session) Session Chair: Ralph Riedel Session Chair: Hendrik Hopf
3:15pm - 5:15pm 203	Wed3-C5: Supply Chain Management Session Chair: Ming Lim Session Chair: Jinwoo Park
3:15pm - 5:15pm 206	Wed3-M1: Social Sustainability in Manufacturing (Special Session) Session Chair: Paola Fantini Session Chair: Marco Taisch
3:15pm - 5:15pm 211	Wed3-I6: LCA Methods and Tools Session Chair: El Kadiri Soumaya Session Chair: Barbara Resta
3:15pm - 5:15pm 218	Wed3-I5: Sustainable Initiatives in Developing Countries-2 (Special Session) Session Chair: Robert Ari Waker Session Chair: JOAO GILBERTO MENDES DOS REIS
5:00pm - 6:30pm 133 MRI	3D-Printing: CIMP-3D Tour and Demonstrations Tour and Demonstrations of Additive Manufacturing Technology at the Center for Innovative Materials Processing through Direct Digital Deposition (CIMP-3D) will cover several industrial processes for "3D-printing" including directed laser deposition, directed electron beam deposition, and laser-based powder fusion techniques. Note - meet in room 133, in the Materials Research Institute building across the street from the Presidents Hall on Innovation Blvd.
6:30pm - 10:00pm	Gala Dinner Featured Speaker: Dr. Paul M. Griffin, Head, The Harold and Inge Marcus Department of Industrial and Manufacturing Engineering, Penn State University Buses will pick up at The Penn Stater (outside of President's Hall, conference wing) and Days Inn (parking lot) @ 6:30 p.m. and return by 10:00 p.m. (Note: for participants residing at the Days Inn, a bus is available outside of President's Hall immediately following the 5:15 p.m. session to shuttle to the Days Inn).
Date: Thursday, 12/Sep/2013	
7:30am - 9:00am President's Hall 3 and 4	Continental Breakfast
8:30am - 9:30am President's Hall 3 and 4	Thu-Plenary: Plenary Session - Key Note Address Session Chair: Marco Taisch Session Chair: Vijay Srinivasan "Global Collaborative Research Network and Services Through IMS" by Dan Nagy, Managing Director, Inter-Regional Secretariat of IMS
9:30am - 10:00am Break Area	Break
10:00am - 12:00pm 203	Thu1-C4: Closed Loop Design Session Chair: A. Ravi Ravindran Session Chair: Klaus-Dieter Thoben
10:00am - 12:00pm 206	Thu1-C3: Sustainability Characterization for Product Assembly and Supply Chain (Special Session) Session Chair: Shaw C. Feng Session Chair: Kincho H Law
10:00am - 12:00pm 211	Thu1-I7: ICT for Manufacturing and Supply Chain Management - 2 Session Chair: Dimitris Kiritsis Session Chair: Thorsten Wuest
10:00am - 12:00pm 218	Thu1-I8: Product Design for Sustainable Supply Chains (Special Session) Session Chair: Gul Kremer Session Chair: Mahnoosh Zebardast
12:00pm - 12:30pm 206	CLOSE: Closing Session Session Chair: Vittal Prabhu

1:00pm - 3:00pm

Nanofab: Post Conference - Nanofab Tour (Pre-paid registration)

Pick up from Penn Stater @ 1:00 p.m. (outside of President's Hall, conference wing) and return approximately 3:00 p.m.

Presentations

Mon1: APMS Doctoral Workshop (Sponsor: Electro-Optics Center). By Invitation Only

Time: Monday, 09/Sep/2013: 9:00am - 5:15pm · *Location:* 203
Session Chair: Sergio Cavalieri

A Mathematical Programming Model for Sustainable Supply Chains

Bojan Stahl

Politecnico di Milano, Italy; bojan.stahl@polimi.it

Visual language for user-centred service design

Eunji Lee

SINTEF ICT; eunji.lee@sintef.no

Supply Chain Microfinance with Defaults: Game Theoretical Approach

Jaehun Sim

PSU, United States of America; jus238@psu.edu

Smart energy demand management – A collaborative framework for consumers' active participation

Zaheer Tariq

University of Bergamo, Italy; zaheer.tariq@unibg.it

Management of Sustainability Performance in Manufacturing Providing After-Sales Services: A comparison between B2B and B2C, Large Enterprise and SMEs

Mahnoosh Zebardast

Politecnico di Milano, Italy; mahnoosh.zebardast@mail.polimi.it

Determination of Interdependencies between Energy Efficiency and Production Logistics Using Design-of-Experiments (DoE)

Ulrich Brandenburg

Institute for Industrial Management at RWTH Aachen University, Germany; bb@fir.rwth-aachen.de

A search for sustainability dimensions in manufacturing strategy

Naghmeh Taghavi

Chalmers University of Technology, Sweden; naghmeh.taghavi@chalmers.se

Energy Model of Manufacturing System based on Queueing Network

Hyun Woo Jeon

Pennsylvania State University, United States of America; albert.jeon@psu.edu

Distributed Information Rich Transshipments: Analytical and Simulative Approaches

Avinoam Tzimerman

Technion, Israel; AvinoamT@Technion.ac.il

Tue1-C1: Sustainable Manufacturing and Supply Chain Management for Renewable Energy (Special Session)

Time: Tuesday, 10/Sep/2013: 10:00am - 12:00pm · *Location:* 203

Session Chair: Guiping Hu

Session Chair: Evelyn Thomchick

Governing and Managing Customer-initiated Engineering Change – An in-depth case study of a global industrial supplier

Anita Friis Sommer, Simon Haahr Storbjerg, Iskra Dukovska-Popovska, Kenn Steger-Jensen
Aalborg University, Denmark; sommer@m-tech.aau.dk

Supplier Value of Customer-initiated Collaborative Product Development – An in-depth case study of a European industrial mass-producer

Anita Friis Sommer, Iskra Dukovska-Popovska, Kenn Steger-Jensen
Aalborg University, Denmark; sommer@m-tech.aau.dk

An Optimization Model for Advanced Biofuel production Based on Bio-Oil Gasification

Qi Li, Guiping Hu

Iowa State University, United States of America; gphu@iastate.edu

A sequential fast pyrolysis facility location-allocation model

Yihua Li, Guiping Hu

Iowa State University, United States of America; gphu@iastate.edu

Potential Woody Biomass Supply Chain Scenarios: A Conceptual Study

Evelyn Thomchick, Kusumal Ruamsook

Penn State University, United States of America; ethomchick@psu.edu

Long term analysis of Energy Payback Time for PV Systems

Simone Zanoni, Laura Mazzoldi

Università di Brescia, Italy; zanoni@ing.unibs.it

Tue1-S5: The Art of Balancing Innovation and Efficiency in Service Systems - The Challenge in Ambidexterity (Special Session)

Time: Tuesday, 10/Sep/2013: 10:00am - 12:00pm · *Location:* 206

Session Chair: Gerhard Gudergan

Session Chair: Volker Stich

Finding the optimal Operating Point for Service Production Processes via Simulation

Günther Schuh, Philipp Jussen, Christian Fabry, Gerhard Gudergan

Institute for Industrial Management (FIR), Germany; philipp.jussen@fir.rwth-aachen.de

Information – The Hidden Value of Servitization

David Opresnik¹, Manuel Hirsch², Christian Zanetti¹, Marco Taisch¹

¹Politecnico di Milano, Italy; ²Centre for Management Research, DITF Denkendorf, Germany; cristiano.zanetti@polimi.it

How advances of ICT will impact on service systems and on the delivering of product-related services

Mario Rapaccini, Isabella Porcelli

University of Florence, Italy; mario.rapaccini@unifi.it

Requirements for Servitization in Manufacturing Service Ecosystems

Stefan Wiesner¹, Michele Sesana², Sergio Gusmeroli², Klaus-Dieter Thoben¹

¹BIBA - Bremer Institut für Produktion und Logistik GmbH, Germany; ²TXT e-Solutions S.p.A., Italy; wie@biba.uni-bremen.de

Service supply chain planning for industrial services – design and application of a decision support tool

Philipp Hertz, Alexander Sproedt

BWI, ETH Zurich, Switzerland; phertz@ethz.ch

Mass Customization in Supply Chain Level: Development of a Conceptual Framework to Manage and Assess Performance

Mahnoosh Zebardast, Silvia Malpezi, Marco Taisch

Politecnico di Milano, Italy; mahnoosh.zebardast@mail.polimi.it

Tue1-S1: Service Manufacturing Systems (Special Session)

Time: Tuesday, 10/Sep/2013: 10:00am - 12:00pm · *Location:* 211

Session Chair: Toshiya Kaihara

Session Chair: Takeshi Shimmura

Optimum Allocation Method of Standby Taxi Vehicles at Taxi Stands

Takashi Tanizaki

Kinki University, Japan; tanizaki@hiro.kindai.ac.jp

Improving Labor Productivity and Labor Elasticity at Multiproduct Japanese Cuisine Restaurant Introducing Cell-Production System

Takeshi Shimmura^{1,2}, **Takeshi Takenaka**², **Syuichi Ohura**¹

¹Ganko Food Service co. Ltd, Japan; ²Center for Service Research, National Institute of Advanced Industrial Science and Technology; t-shimmura@gankofood.co.jp

Does the carbon footprint enhance the sustainability food production and transportation service system? Real buying experiment in Japan

Keiko AOKI¹, **Kenju AKAI**²

¹Osaka University, Japan; ²the University of Tokyo, Japan; fuizu43@gmail.com

Does an information service provider improve the market?

Kenju Akai¹, **Keiko Aoki**², **Nariaki Nishino**¹

¹The university of Tokyo, Japan; ²Niigata University, Japan; akai@css.t.u-tokyo.ac.jp

Facility Layout Planning of Central Kitchen in Food Service Industry - Application to the real-scale problem

Nobutada Fujii, **Toshiya Kaihara**, **Minami Uemura**, **Tomomi Nonaka**, **Takeshi Shimmura**

Kobe University, Japan; nonaka@phoenix.kobe-u.ac.jp

Tue1-I1: ICT-Enabled Integrated Operations (Special Session)

Time: Tuesday, 10/Sep/2013: 10:00am - 12:00pm · *Location:* 218

Session Chair: Daryl John Powell

Session Chair: Bernard Grabot

ICT-enabled integrated operations: Towards a framework for the integration of manufacturing- and maintenance planning and control

Daryl John Powell, Harald Rødseth

Norwegian University of Science and Technology, Norway; daryl.j.powell@ntnu.no

Functional Requirements for a Collaborative Order Management Tool for Use in an Engineering Setting

Børge Sjøbakk, Ottar Bakås

SINTEF, Norway; borge.sjobakk@sintef.no

Supporting Rapid Product Development with Sketch-Based Modeling

Natthavika Chansri¹, Pisut Koomsap²

¹Industrial Engineering, Faculty of Engineering at Si Racha, Kasetsart University, Thailand; ²Industrial and Manufacturing Engineering, School of Engineering and Technology, Asian Institute of Technology, Thailand; pisut@ait.ac.th

Lean and Automate Manufacturing and Logistics

Bernardo Nicoletti

Università di Roma Tor Vergata, Italy; info@bernardonicoletti.com

Proposal of an interoperability standard supporting PLM and knowledge sharing

Simone Parrotta¹, Jacopo Cassina¹, Marco Taisch², Sergio Terzi³, David Potter², Kary Framling⁴

¹Holonix, Italy; ²Politecnico di Milano, Italy; ³University of Bergamo, Italy; ⁴Aalto University, Finland; simone.parrotta@holonix.it

Tue2-M2: Energy Efficient Manufacturing

Time: Tuesday, 10/Sep/2013: 1:00pm - 3:00pm · *Location:* 203

Session Chair: Frederic Demoly

Session Chair: Gökan May

A production-state based approach for energy flow simulation in manufacturing systems

Bojan Stahl¹, **Marco Taisch**¹, **Federica Vaccari**¹, **Andrea Cataldo**²

¹Politecnico di Milano, Italy; ²Institute of Industrial Technology and Automation National Research Council, Italy; bojan.stahl@polimi.it

Sustainability Enhancement through Environmental Impacts Evaluation

Matteo Mario Savino, Antonio Mazza

University of Sannio, Department of Engineering, Italy; matteo.savino@unisannio.it

Efficient Energy Performance Indicators for Different Level of Production Organizations in Manufacturing Companies

Hendro Wicaksono¹, **Tim Belzner**², **Jivka Ovtcharova**³

¹Institute for Information Management in Engineering (IMI), Karlsruhe Institute of Technology, Germany; ²Institute for Information Management in Engineering (IMI), Karlsruhe Institute of Technology, Germany; ³Institute for Information Management in Engineering (IMI), Karlsruhe Institute of Technology, Germany; hendro.wicaksono@kit.edu

Energy related Key Performance Indicators – State of the art, gaps and industrial needs

GOKAN MAY^{1,2}, **MARCO TAISCH**¹, **VITTAL PRABHU**², **ILARIA BARLETTA**¹

¹Politecnico di Milano, Italy; ²Pennsylvania State University, USA; goekan.may@mail.polimi.it

A Queuing Approach for Energy supply in manufacturing facilities

Lucio Zavanella, Ivan Ferretti, Simone Zanoni, Laura Bettoni

Università di Brescia, Italy; zanoni@ing.unibs.it

Tue2-C2: Interoperability in the Manufacturing and Supply Chain Services (Special Session)

Time: Tuesday, 10/Sep/2013: 1:00pm - 3:00pm · *Location:* 206

Session Chair: Serm Kulvatunyou

Session Chair: Christopher Peters

Supply Chain Interoperability Efforts Missing Key Data

Christopher Peters

The Lucrum Group, United States of America; cpeters@thelucrumgroup.com

A Framework for Developing Manufacturing Service Capability Information Model

Yunsu Lee, Yun Peng

University of Maryland, Baltimore County, United States of America; kx78971@umbc.edu

Semantic Web-based Supplier Discovery Framework

Jaehun Lee¹, Kiwook Jung¹, Bo Hyun Kim², Hyunbo Cho¹

¹POSTECH(Pohang University of Science and Technology), Korea, Republic of (South Korea); ²KITECH(Korea Institute of Industrial Technology), Korea, Republic of (South Korea); jaehun_lee@postech.ac.kr

A Consilience-based Approach to Engineering Services in Global Supply Chains

Albert Jones

NIST, United States of America; albert.jones@nist.gov

Manufacturing Capability Inference and Supplier Classification Based on a Formal Thesaurus

Farhad Ameri, Stan Thornhill

Texas State University, United States of America; ameri@txstate.edu

Excellent Manufacturer Scouting System (EMSS) for Korean Mold Industry

Moonsoo Shin¹, Sangil Lee², Kwangyeol RYU², Hyunbo Cho³

¹Hanbat National University, Daejeon, Republic of (South Korea); ²Pusan National University, Korea, Republic of (South Korea);

³Pohang University of Science and Technology, Pohang, Gyeongbuk, Republic of (South Korea); hcho@postech.ac.kr

Use Case Analysis for Standard Manufacturing Service Capability Model

Yunsu Lee, Boonserm Kulvatunyou, Marko Vujasinovic, Nenad Ivezić

National Institute of Standards and Technology, United States of America; kx78971@umbc.edu

Tue2-S2: Modeling of Business and Operational Processes

Time: Tuesday, 10/Sep/2013: 1:00pm - 3:00pm · *Location:* 211

Session Chair: Harvey Millar

Session Chair: Sergio Cavalieri

Empirical Evidence of an Efficient Formulation for the Multi-Period Setup Carryover Lot Sizing Problem

Harvey Millar¹, Suzana Russell²

¹Saint Mary's University, Canada; ²University of trinidad and Tobago; harvey.h.millar@gmail.com

Multi-level service approach for flexible support of design processes

Safa Hachani¹, Lilia Gzara¹, Herve Verjus²

¹Grenoble Institute of Technology, G-SCOP Lab; ²University of Savoie, LISTIC Lab; lilia.gzara@g-scop.inpg.fr

Simulated annealing for a vehicle routing problem with simultaneous pickup-delivery and time windows

Chao Wang^{1,2}, Fu Zhao², Dong Mu¹, John W Sutherland²

¹School of Economics and Management, Beijing Jiaotong University, China; ²College of Engineering, Purdue University, United State; chaowang.hn@gmail.com

Development of a decision support system to facilitate multi-criteria decision making during humanitarian operations within a project life cycle

Krittiya Saksrisathaporn, Aurelie Charles

Universite Lumière Lyon 2, France; krittiya28@gmail.com

Interactive Business Models to deliver Product-Services to Global Markets

Sergio Cavalieri¹, David Romero², Paul Schoensleben³, Jan Ola Strandhagen⁴

¹University of Bergamo, Italy; ²Tecnológico de Monterrey, Mexico; ³ETH Zurich, Switzerland; ⁴Norges Teknisk-Naturvitenskapelige Universitet (NTNU), Norway; sergio.cavalieri@unibg.it

Tue2-12: Emerging and Innovative Technologies-1

Time: Tuesday, 10/Sep/2013: 1:00pm - 3:00pm · *Location:* 218

Session Chair: Kenn Steger-Jensen

Session Chair: Damien Trentesaux

Research on Recognition Algorithm of Track Substructure Defects Based on Vehicle Dynamic Responses

Hongmei Shi

Beijing Jiaotong University, China, People's Republic of; shihongmei7308@163.com

Critical analysis of management system of hazardous solid waste generated in the city of Santos in the state of São Paulo

Ulysses Martins Moreira Filho¹, Pedro Luiz de Oliveira Costa Neto²

¹Paulista University - UNIP, Brazil; ²Paulista University - UNIP, Brazil; moreiraf@uol.com.br

Relevance of Kotter's Model for Change in successfully implementing Lean

Shovan Mishra

Auburn University, United States of America; shovanmishra@auburnalum.org

Determinants of Smart Energy Demand Management: An Exploratory Analysis

Zaheer Tariq¹, Sergio Cavalieri², Roberto Pinto²

¹University of Bergamo, Department of Management, Economics and Quantitative Methods, Bergamo, Italy; ²University of Bergamo, Department of Engineering, CELS – Research Group on Industrial Engineering, Logistics and Service Operations, Bergamo, Italy; zaheer.tariq@unibg.it

A Model Based Continuous Improvement Methodology for Sustainable Manufacturing

Sanjay Jain¹, Gordon Shao², Alexander Brodsky³, Frank Riddick²

¹George Washington University, United States of America; ²National Institute of Standards and Technology, Gaithersburg, MD, USA; ³George Mason University, Fairfax, VA, USA; jain@gwu.edu

Wed1-M3: Manufacturing Networks for Mass Customization

Time: Wednesday, 11/Sep/2013: 10:00am - 12:00pm · *Location:* 202

Session Chair: Pisut Koomsap

Session Chair: Stig Brink Taps

Sustainability Evaluation of Mass Customization

Thomas Ditlev Brunoe, Kjeld Nielsen, Stig B. Taps, Kaj A. Joergensen

Aalborg University, Denmark; taps@m-tech.aau.dk

Assessment of Process Robustness for Mass Customization

Kjeld Nielsen, Thomas Ditlev Brunoe

Aalborg University, Denmark; kni@m-tech.aau.dk

Conception of technology chains in battery production

Achim Kampker¹, Heiner Hans Heimes², Christian Sesterheim³, Marc Schmidt⁴

¹RWTH Aachen University, Germany; ²RWTH Aachen University, Germany; ³RWTH Aachen University, Germany; ⁴RWTH Aachen University, Germany; h.heimes@wzl.rwth-aachen.de

Application of Design by Customer in Tile Decoration Business

Supimmas Thienhirun, Pisut Koomsap

Industrial and Manufacturing Engineering, School of Engineering and Technology, Asian Institute of Technology, Thailand;
pisut@ait.ac.th

A novel framework for technological evolution within product architecture

Yannick CHAPUIS, Frédéric DEMOLY, Samuel GOMES

UTBM, France; yannick.chapuis@utbm.fr

Wed1-I9: Emerging and Innovative Technologies-2

Time: Wednesday, 11/Sep/2013: 10:00am - 12:00pm · *Location:* 203

Session Chair: Jan Frick

Session Chair: Rhythm Suren Wadhwa

Engineering product-service solutions: an application in the power and automation industry

Giuditta Pezzotta, Roberto Pinto, Fabiana Pirola, Sergio Cavalieri, Fumiya Akasaka, Yoshiki Shimomura

Università degli Studi di Bergamo, Italy; sergio.cavalieri@unibg.it

Business Model Canvas as tool for SME

Jan Frick, Murshid Mikael Ali

University of Stavanger, Norway; jan.frick@uis.no

Methodology for internal traceability support in foundry manufacturing

Rhythm Suren Wadhwa

NTNU Valgrinda, Norway; rhythm.s.wadhwa@ntnu.no

Reverse Logistics: network design based on life cycle assessment

Joanna Daaboul, Julien Le Duigou, Diana Penciu, Benoît Eynard

Université de Technologie de Compiègne, France; joanna.daaboul@utc.fr

Is healthy eating, healthy for the environment? Barilla Center for Food and Nutrition Double Food Pyramid

Luca Ruini¹, Roberto Ciatì¹, Carlo Alberto Pratesi², Ludovica Principato², Massimo Marino³, Sonia Pignatelli³

¹Barilla G.e R. Fratelli S.p.A., Italy; ²Roma Tre University, Italy; ³StudioLCE, Italy; luca.ruini@barilla.com

Wed1-S4: Simulation Based Training in Production and Operations Management (Special Session)

Time: Wednesday, 11/Sep/2013: 10:00am - 12:00pm · *Location:* 211

Session Chair: Avraham Shtub

Session Chair: Alexander Sproedt

Development of a Training System for Lathe Operation using a Simulator

Tatsuya Yamaguchi¹, Takashi Kawashimo¹, Toshiyuki Matsumoto¹, Daisuke Doyo²

¹Aoyama Gakuin University, Japan; ²Kanagawa University, Japan; c5612135@aoyama.jp

Using Serious Game in Sustainable Global Manufacturing Education

Borzoo Pourabdollahian Tehran, Marco Taisch, Manuel Fradinho

Politecnico di Milano, Italy; borzoo.pourabdollahian@mail.polimi.it

Simulator Based Training to Improve Tradeoffs Analysis and Decision Making in Lean Development Environment

Michal Iluz, Avraham Shtub

Technion - Institute of Technology in Israel, Israel; shtub@ie.technion.ac.il

A Simulation Enabled Procedure for Eco-Efficiency Optimization in Production Systems

Alexander Sproedt, Johannes Plehn, Philipp Hertz

ETH Zurich, Switzerland; asproedt@ethz.ch

Teaching Supply Chain Management: Mixed vs. Pure Strategies in Simulation Based Training

Avinoam Tzimerman, Yale Herer, Avraham Shtub

Technion, Israel; AvinoamT@Technion.ac.il

Performance analysis of reverse supply chain systems by using simulation

Shigeki Umeda

Musashi University, Japan; shigeki@cc.musashi.ac.jp

Wed1-I3: ICT for Manufacturing and Supply Chain Management-1

Time: Wednesday, 11/Sep/2013: 10:00am - 12:00pm · *Location:* 218

Session Chair: Christos Emmanouilidis

Session Chair: Hajime Mizuyama

A Prototype Crowdsourcing Approach for Document Summarization Service

Hajime Mizuyama, Keishi Yamashita, Kenji Hitomi, Michiko Anse

Aoyama Gakuin University, Japan; mizuyama@ise.aoyama.ac.jp

Intelligent products: a spinal column to handle information exchanges in supply chains

Damien Trentesaux¹, Bernard Grabot², Yves Sallez¹

¹UVHC, France; ²ENIT, France; damien.trentesaux@univ-valenciennes.fr

Integrating Lean and MRP: A Taxonomy of the Literature

Daryl John Powell, Ilker Bas, Erlend Alfnes

Norwegian University of Science and Technology, Norway; daryl.j.powell@ntnu.no

Supply chain integration for sustainability faces sustaining ICT problems

Johan Wortmann, Alex Alblas, Paul Buijs, Kristian Peters

University of Groningen, Netherlands, The; k.peters@rug.nl

Physical Asset Management Practices in Industry: Comparisons between Greece and other EU Countries

Christos Emmanouilidis¹, Kari Komonen²

¹ATHENA Research & Innovation Centre, Greece; ²Promaint, Finland; christosem@ieee.org

Wed2-M6: Intelligent Production Systems and Planning Solutions for Sustainability -1 (Special Session)

Time: Wednesday, 11/Sep/2013: 1:00pm - 3:00pm · *Location:* 202

Session Chair: Ralph Riedel

Session Chair: David Jentsch

Modeling Energy Performance of Manufacturing Systems using Gi/M/1 Queues

Hyun Woo Jeon, Vittal Prabhu

Pennsylvania State University, United States of America; albert.jeon@psu.edu

Energy-Efficiency Concept for the Manufacturing Industry

Volker Stich, Niklas Hering, Christian Paul Starick, Ulrich Brandenburg

Institute for Industrial Management at RWTH Aachen University, Germany; bb@fir.rwth-aachen.de

Attacking the Critical Parts in Product Development. Marin Platform - Building Flexible Structural Elements for Boats

Bjørnar Henriksen, Carl Christian Røstad

SINTEF, Norway; bjornar.henriksen@sintef.no

Chance Constrained Programming Model for Stochastic Profit-Oriented Disassembly Line Balancing in the Presence of Hazardous Parts

Mohand Lounes Bentaha, Olga Battaïa, Alexandre Dolgui

Ecole des Mines de Saint-Etienne, France; bentaha@emse.fr

From EcoDesign to Industrial Metabolism. Redefinition of Sustainable Innovation and Competitive Sustainability.

Stig Brink Taps, Thomas D. Brunoe, Kjeld Nielsen

Aalborg University, Denmark; taps@m-tech.aau.dk

Resource-Efficient Production Planning through Flexibility Measurements in Value Creation Systems

Sven Rogalski¹, Hendro Wicaksono¹, Konstantin Krahtov²

¹Karlsruhe Institute of Technology (KIT), Germany; ²Open Experience GmbH; hendro.wicaksono@kit.edu

Wed2-M5: Enablers for Smart Manufacturing

Time: Wednesday, 11/Sep/2013: 1:00pm - 3:00pm · *Location:* 206

Session Chair: Johan Stahre

Session Chair: Bojan Stahl

Towards an approach to identify the optimal instant of time for information capturing in supply chains

Thorsten Wuest, Dirk Werthmann, Klaus-Dieter Thoben

BIBA - Bremer Institut für Produktion und Logistik GmbH, Germany; wue@biba.uni-bremen.de

Exploring Different Faces of Mass Customization in Manufacturing

Golboo Pourabdollahian, Marco Taisch, Gamze Tepe

Politecnico di Milano, Italy; golboo.pourabdollahian@mail.polimi.it

State-oriented productivity analysis in one-of-a-kind-production

Florian Tietze, Hermann Lödding

Hamburg University of Technology, Germany; florian.tietze@tuhh.de

A Study on the Effect of Inspection Time on Defect Detection Rate in Visual Inspection

Ryosuke Nakajima¹, Keisuke Shida², Toshiyuki Matsumoto¹

¹Aoyama Gakuin University, Japan; ²Nagaoka University of Technology, Japan; ryosh.12.3@gmail.com

Toward Automated Design for Manufacturing Feedback

Wonmo Kim, Timothy William Simpson

The Pennsylvania State University, United States of America; wzk106@psu.edu

Wed2-S3: Servicization

Time: Wednesday, 11/Sep/2013: 1:00pm - 3:00pm · *Location:* 211

Session Chair: Bruno Vallespir

Session Chair: Samuel Gomes

Word of Mouth in Hospitality Management: The Case of Luxury Hotels in China

Maria Jose Alvarez Gil, Wei Yan

Universidad Carlos III de Madrid, Spain; wei.yan@uc3m.es

Service delivery process based on service composition mechanisms

Thecle Alix, Bruno Vallespir

IMS University of Bordeaux, France; thecele.alix@ims-bordeaux.fr

Towards a knowledge-intensive framework for top-down design context definition

Nicolas Petrazoller, Frédéric Demoly, Samuel Deniaud, Samuel Gomes

UTBM, France; n.petrazoller@laposte.net

Servitization of the Manufacturer's Value Chain

David Opresnik, Christian Zanetti, Marco Taisch

Politecnico di Milano, Italy; david.opresnik@polimi.it

Monitoring & Controlling in an Industrial Service Ecosystem

Marco Taisch, Mohammadreza Heydari Alamdari, Christian Zanetti

POLITECNICO DI MILANO, Italy; mohammadreza.heydari@polimi.it

Wed2-I4: Sustainable Initiatives in Developing Countries-I (Special Session)

Time: Wednesday, 11/Sep/2013: 1:00pm - 3:00pm · Location: 218

Session Chair: Irenilza de Alencar Nääs

Session Chair: Renato Perrotta

Sustainable initiatives in developing countries

Antonio René Camargo Aranha Paula Leite¹, **Jayme de Aranha Machado**², **José Benedito Sacomano**³

¹Paulista University - UNIP, Brazil; ²Paulista University - UNIP, Brazil; ³Paulista University - UNIP, Brazil; arcapale@unip.br

Prioritization of Research Proposals using the Analytic Hierarchy Process

Deise Rocha Martins dos Santos Oliveira¹, **Irenilza de Alencar Nääs**², **Flávio Margarito Martins Barros**³

¹Embrapa Informática Agropecuária, Brazil; ²Paulista University - Unip, Brazil; ³State University of Campinas - Unicamp, Brazil; deise.oliveira@gmail.com

Sustainability issues in Brazilian housing construction industry: the role of workers' education

Carla Caprara Parizi, **Irenilza de Alencar Nääs**, **Solimar Garcia**, **Eder Moreno Ferragi**, **Denise Simões Dupont Bernini**

Paulista University, Brazil; irenilza@gmail.com

An innovative way to add value to organizations: people relationship modeling

Robert Ari Waker, **Mario Mollo Neto**, **Antonio Henrique Queiroz Conceição**

UNIP - Universidade Paulista, Brazil; bobwaker@gmail.com

Reaching Energetic Sustainability through a Self-Oriented Battery Charger, based on Paraconsistent Annotated Evidential Logic Et.

Álvaro André Colombero Prado, **Cristina Corrêa de Oliveira**, **Liliam S. Sakamoto**, **Jair Minoro Abe**, **Marcelo Nogueira**

Universidade Paulista - UNIP, Brazil; py2alv@gmail.com

Program Inovar-Auto, Initiatives toward Innovation and Competitiveness in the Automotive Sector in Brazil

Renato Perrotta, **Oduvaldo Vendrametto**, **Rodrigo Franco Gonçalves**, **Adilson Rocha**, **Jorge Monteiro Junior**

UNIP - Paulista University, Brazil; renato.perrotta@uol.com.br

Wed3-M7: Intelligent Production Systems and Planning Solutions for Sustainability-2 (Special Session)

Time: Wednesday, 11/Sep/2013: 3:15pm - 5:15pm · *Location:* 202

Session Chair: Ralph Riedel

Session Chair: Hendrik Hopf

Modeling of Energy-Efficient Factories with Flow System Theory

Hendrik Hopf, Egon Müller

Chemnitz University of Technology, Germany; hendrik.hopf@mb.tu-chemnitz.de

Agile Planning Processes

Ralph Riedel, David Jentsch, Sebastian Horbach, Joerg Ackermann, Egon Mueller

Chemnitz University of Technology, Germany; david.jentsch@mb.tu-chemnitz.de

Multi-stage parallel machines and lot-streaming scheduling problems – A case study for solar cell industry

Chen-Yang Cheng

Tunghai University, Taiwan, Republic of China; chengcy@thu.edu.tw

An exact method for the assembly line re-balancing problem

Fatme Makssoud, Olga Battaia, Alexandre Dolgui

Ecole des Mines de Saint-Etienne, France; makssoud@emse.fr

Green Factory Planning: Framework and modules for a flexible approach

Florian Mueller¹, Alessandro Cannata¹, Sebastian Thiede², Christoph Herrmann², Marco Taisch³, Bojan Stahl³

¹Siemens AG Corporate Technology, Germany; ²Institute of Machine Tools and Production Technology, Technische Universität Braunschweig; ³Politecnico di Milano; bojan.stahl@polimi.it

Wed3-C5: Supply Chain Management

Time: Wednesday, 11/Sep/2013: 3:15pm - 5:15pm · Location: 203

Session Chair: Ming Lim

Session Chair: Jinwoo Park

Development of a Strategic Model for Freight Transportation with a Case Study of the Far East

Louis Coulet¹, Sungbum Jun², Jinwoo Park³

¹Thales Services, Sophia-Antipolis, France; ²Dept. of Industrial Engineering at Seoul National University, Seoul, Republic of Korea;

³Dept. of Industrial Engineering at Seoul National University, Seoul, Republic of Korea; autofact@snu.ac.kr

Simulating the Dominant Effect of a Few Critical Sites on Supply Chains Using the Inter-industry Relations Table

Sadao Suganuma, Masaru Nakano

The Graduate School of System Design and Management, Keio University, Japan; suganuma235@a6.keio.jp

Dependability a Key Element for Achieving Sustainable Competitive Advantage: A Study of Information Service Firms

Vikas Kumar², Archana Kumari³, Jose Arturo Garza-Reyes¹, Ming Lim¹

¹University of Derby, United Kingdom; ²Dublin City University, Dublin; ³University of Delhi, New Delhi, India; m.lim@derby.ac.uk

Selection and Ranking of Low Cost Countries for Outsourcing and Offshoring in the Manufacturing Sector

Rahul Ulhas Pai², Sujit Banerji³, Jose Arturo Garza-Reyes¹, Ming Lim¹, Vikas Kumar⁴

¹University of Derby, United Kingdom; ²Cummins Ltd, Darlington, UK; ³Warwick Manufacturing Group, The University of Warwick, Coventry, UK; ⁴Dublin City University Business School, Dublin City University, Dublin; m.lim@derby.ac.uk

Wed3-M1: Social Sustainability in Manufacturing (Special Session)

Time: Wednesday, 11/Sep/2013: 3:15pm - 5:15pm · *Location:* 206

Session Chair: Paola Fantini

Session Chair: Marco Taisch

Game Theoretical Approach to Supply Chain Microfinance

Jaehun Sim, Prabhu Vittal

PSU, United States of America; jus238@psu.edu

Surplus Product Donation and Sustainability Strategy: Channels and Challenges for Corporate Product Donations

Md. M. Islam, John Vande Vate

School of Industrial and Systems Engineering, Georgia Tech, USA; mislam6@gatech.edu

Social sustainability: perspectives on the role of manufacturing

Paola Fantini¹, Marco Taisch², Claudio Palasciano²

¹Fondazione Politecnico di Milano; ²Politecnico di Milano, Italy; marco.taisch@polimi.it

Information Flows in Future Advanced Manufacturing Ecosystems

Minna Lanz, Matti Majuri, Reijo Tuokko

Tampere University of Technology, Finland; minna.lanz@tut.fi

Social Sustainability Challenges for European Manufacturing Industry: Attract, Recruit and Sustain

Cecilia Berlin, Caroline Dederig, Guðbjörg Rist Jónsdóttir, Johan Stahre

Chalmers University of Technology, Sweden; gubjorg@student.chalmers.se

Wed3-I6: LCA Methods and Tools

Time: Wednesday, 11/Sep/2013: 3:15pm - 5:15pm · *Location:* 211

Session Chair: El Kadiri Soumaya

Session Chair: Barbara Resta

Linked Data exploration in Product life-cycle management

Ana Milicic, Soumaya El Kadiri, Dimitris Kiritsis

Ecole Polytechnique Federale da Lausanne, Switzerland; ana.milicic@epfl.ch

Towards a fast evaluation of environmental impacts.

Daniele Cerri¹, Marco Taisch¹, Sergio Terzi², Simone Parrotta³

¹Politecnico di Milano, Italy; ²Università degli Studi di Bergamo, Italy; ³Holonix S.R.L., Italy; daniele.cerri@polimi.it

A DECISION MAKING PROCESS FOR SUSTAINABILITY IN THE TEXTILE SECTOR

Barbara Resta, Stefano Dotti, Roberto Pinto, Paolo Gaiardelli

CELS – Research Group on Industrial Engineering, Logistics and Service Operations, Department of Engineering, University of Bergamo, Italy; barbara.resta@unibg.it

Sustainability Assessment Tools – State of Research and Gap analysis

MARCO TAISCH, VAHID SADR, GOKAN MAY, BOJAN STAHL

Politecnico di Milano, Italy; gokan.may@polimi.it

Increasing the sustainability of pasta production through a life cycle assessment approach

Luca Ruini¹, Emilio Ferrari¹, Pierluigi Meriggi², Massimo Marino³, Filippo Sessa³

¹Barilla G.e R. Fratelli S.p.A, Italy; ²Horta Srl, Italy; ³StudioLCE, Italy; luca.Ruini@barilla.com

Wed3-I5: Sustainable Initiatives in Developing Countries-2 (Special Session)

Time: Wednesday, 11/Sep/2013: 3:15pm - 5:15pm · *Location:* 218

Session Chair: Robert Ari Waker

Session Chair: JOAO GILBERTO MENDES DOS REIS

Is environmental innovation worth it? The case of civil aviation industry in emerging markets

Maria Jose Alvarez Gil, Wei Yan

Universidad Carlos III de Madrid, Spain; wei.yan@uc3m.es

Technological innovation ethics and legislation as factors for quality of life

ALINE RODRIGUES SACOMANO, ODUVALDO VENDRAMETTO, PEDRO LUIZ OLIVEIRA COSTA NETO

UNIVERSIDADE PAULISTA - UNIP, Brazil; aline.sacomano@uol.com.br

Sustainability Impacts in the IT Strategic Alignment

Antônio Palmeira Araujo Neto, Ivanir Costa, Andréa Martins Cristóvão, Nilo Serpa

Universidade Paulista, Brazil; niloserpa@gmail.com

Development of Agile Supply Chains in Brazil

**JOAO GILBERTO MENDES DOS REIS^{1,2}, PEDRO LUIZ DE OLIVEIRA COSTA NETO², JOSÉ PAULO ALVES FUSCO³,
SIVANILZA TEIXEIRA MACHADO⁴**

¹Federal University of Grande Dourados, School of Engineering and Graduate Studies Program in Agrobusiness; ²Paulista University, Graduate Studies Program in Production Engineering; ³Paulista State University, School of Engineering, Bauru, Brazil;

⁴Federal University of Grande Dourados, Graduate Studies Program in Agricultural Engineering; betomendesreis@msn.com

A Technical Noncompliance Evaluation Criteria for Sustainable Production in IT Support Services

Nilo Costa Serpa, Ivanir Costa, Antônio Palmeira Araújo Neto

UNIP - Universidade Paulista, Brazil; niloserpa@gmail.com

Education mediated by technology: strategy to spread high school learning in Piauí State, Brazil

Reinaldo Araujo Lopes, Dalton Oswaldo Buccelli, Herbert Gonçalves Espuny, Jean Carlos Cavaleiro, Pedro Luiz de Oliveira Costa Neto, Simone Maria Viana Romano

Universidade Paulista, Brazil; mestradoua@bol.com.br

Thu1-C4: Closed Loop Design

Time: Thursday, 12/Sep/2013: 10:00am - 12:00pm · *Location:* 203

Session Chair: A. Ravi Ravindran

Session Chair: Klaus-Dieter Thoben

Closed Loop Supply Chains for Sustainable Mass Customization

Kjeld Nielsen, Thomas Ditlev Brunoe

Aalborg University, Denmark; kni@m-tech.aau.dk

An Effective Policy for Recycling Parts for the Production Management of Consumable Supplies

Satoshi Ito, Tatsuya Komuro, Tomoaki Yamazaki, Toshiyuki Matsumoto

Aoyama Gakuin University, Japan; c5612120@aoyama.jp

Modeling and Simulation of Closed-Loop Supply Chains Considering Economic Efficiency

Yoshitaka Tanimizu, Yusuke Shimizu, Koji Iwamura, Nobuhiro Sugimura

Osaka Prefecture University, Japan; tanimizu@me.osakafu-u.ac.jp

Determination of the Spare Parts Demand for Maintenance, Repair and Overhaul Service Providers

Uwe Dombrowski, Sebastian Weckenborg

Technische Universität Braunschweig, Germany; s.weckenborg@tu-bs.de

Using Cloud, Modularity, and Make-to-Upgrade Strategy for Integrating Customized-Oriented Supply Networks

Afshin Mehrsai¹, Hamid-Reza Karimi², Klaus-Dieter Thoben¹

¹BIBA – Bremer Institut für Produktion und Logistik GmbH, Germany; ²University of Agder, Norway; afshin.mehrsai@gmail.com

Thu1-C3: Sustainability Characterization for Product Assembly and Supply Chain (Special Session)

Time: Thursday, 12/Sep/2013: 10:00am - 12:00pm · *Location:* 206

Session Chair: Shaw C. Feng

Session Chair: Kincho H Law

An Information Reporting Web Service Framework for Integration of Gate-to-Gate Process-to-Energy Metrics

Lewis John McGibbney, Mark Peng, Kincho Law

Stanford University, United States of America; lewis2@stanford.edu

The reverse logistics technology and development trend of retired home appliances

Xin Zhao, Yonggao Fu, Jiaqi Hu, Ling Wang

China National Electric Apparatus Research Institute Co. Ltd, China, People's Republic of; zhx075@126.com

Warehousing Sustainability Standards Development

Richard Bank¹, Richard Murphy²

¹Sustainable Supply Chain Foundation, United States of America; ²Murphy Warehouse Company, United States of America;
rbanke@sustainable-scf.org

Energy Savings Opportunities and Energy Efficiency Performance Indicators for a Serial Production Line

Michael Brundage¹, Qing Chang¹, Shiyao Wang¹, Shaw Feng², Guoxian Xiao³, Jorge Arinez³

¹Stony Brook University, United States of America; ²NIST; ³GM R&D; michael.brundage@stonybrook.edu

Modeling Energy Information for Integrated Product Assembly Processes and Supply Chains

Shaw C. Feng¹, Senthilkumaran Kumaraguru¹, Kincho Law², Kyeongrim Ahn¹, Nenad Ivezic¹, Boonserm Kulvantunyou¹

¹NIST, United States of America; ²Stanford University, USA; shaw.feng@nist.gov

Thu1-I7: ICT for Manufacturing and Supply Chain Management - 2

Time: Thursday, 12/Sep/2013: 10:00am - 12:00pm · *Location:* 211

Session Chair: Dimitris Kiritsis

Session Chair: Thorsten Wuest

Ontology-Based Dynamic Forms for Manufacturing Capability Information Collection

Yan Kang, Yun Peng

University of Maryland Baltimore County, United States of America; kangyan2003@gmail.com

On the development of a reference framework for ICT for manufacturing skills

Ahmed Bufardi, Dimitris Kiritsis

EPFL, Switzerland; dimitris.kiritsis@epfl.ch

A Concept for Graph-based LCA Analysis Tool

Drazen Nadoveza, Andreas Koukias, Fatih Karakoyun, Dimitris Kiritsis

EPFL, Switzerland; dimitris.kiritsis@epfl.ch

Cyber-physical Production Management

Günther Schuh, Till Potente, Christina Thomas, Annika Hauptvogel

Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, Germany; A.Hauptvogel@wzl.rwth-aachen.de

Parameter management in configuration for the design of products families

Coraline DEFFRENNE, Mathieu BETTWY, Aurélie ROBERT, Samuel GOMES

IRTES-M3M, France; mathieu.bettwy@gmail.com

Thu1-18: Product Design for Sustainable Supply Chains (Special Session)

Time: Thursday, 12/Sep/2013: 10:00am - 12:00pm · *Location:* 218

Session Chair: Gul Kremer

Session Chair: Mahnoosh Zebardast

Process alignment for Sustainable Product Development: The essential role of supplier and customer involvement processes

Alex Alblas, Kristian Peters, Hans Wortmann

University of Groningen, Netherlands, The; a.a.alblas@rug.nl

Global Product Development: Organization and Links with the Supply Chain

Francesca Faggioli¹, Riccardo Franzini¹, Margherita Pero¹, Monica Rossi¹, Sergio Terzi²

¹Politecnico di Milano, Italy; ²Università degli Studi di Bergamo, Italy; monica.rossi@polimi.it

A Study of Sustainability Adoption Trends in the Transportation Market

Carlos Parra, Christine Toh, Marta Jaen Ventura

Penn State University, United States of America; mxv176@psu.edu

Sustainability Adoption Trend Analysis

Simon W Miller, Paolo Pecorario, Lisa M Ulan

The Pennsylvania State University, United States of America; swm154@psu.edu

Eliciting a Mode of Transportation to Improve Product Life Cycle Performance

Paolo Pecorario

Pennsylvania State University, United States of America; pwp5155@psu.edu

SET BASED CONCURRENT ENGINEERING INNOVATION ROADMAP

Endris Temam Kerga¹, Marco Taisch¹, Sergio Terzi²

¹Politecnico di Milano, Italy; ²Università degli studi di Bergamo, Italy; endris.kerga@mail.polimi.it