

47th CIRP CONFERENCE ON Manufacturing Systems (CMS2014)
PROGRAM

25 April 2014 (Rev#4)

Sunday 27 April 2014

17:00 - 19:00 Early bird registration at the Waterfront Hotel

Monday 28 April 2014

08:00 - 8:30 REGISTRATION (CEI Main Foyer)

08:30 - 10:30 OPENING PLENARY SESSION (CEI 1100 Auditorium)

Chair: Prof. Waguih ElMaraghy, Director Intelligent Manufacturing Systems Centre (IMSC), Conference Co-Chair

08:30 - 09:30 Introduction

Prof. Hoda ElMaraghy, Canada Research Chair in Manufacturing Systems, Conference Chair

Dr. Alan Wildeman, President, the University of Windsor

The Honourable Gary Goodyear, Minister of State (Federal Economic Development Agency for Southern Ontario) *"Positioning the manufacturing sector in Ontario to be a key driver of Canada's economic prosperity"*

Sandra Pupatello, Chief Executive Officer, the Windsor Essex Economic Development Corporation

Prof. Laszlo Monostori, Budapest University, President, International Academy for Production Engineering (CIRP) *"History of CIRP"*

Prof. Kanji Ueda, the University of Tokyo, Chair, CIRP Manufacturing Systems Conferences *"History of CIRP CMS"*

09:30 - 10:00 Keynote Speaker: Prof. Günther Schuh, Chair of Production Systems at the RWTH Aachen
"Collaboration Moves Productivity to the Next Level"

10:00 - 10:30 Keynote Speaker: Mr. Michael Bastian, Manager, Global Controls Engineering, Power Train Manufacturing, FORD Motor Co. *"Controls Engineering Drives Manufacturing in America"*

10:30 - 11:00 GROUP PICTURE & MORNING BREAK (CEI Main Foyer)

11:00 - 12:40

PARALLEL SESSIONS

	Session 1: Chair: Wilfried Sihl Room: 1101	Session 2: Chair: Rajkumar Roy Room:1102	Session 3: Chair: Ahmed M. Deif Room: 2103	Session 4: Chair: Katsushi Furutani Room: 2104
	Design of Manufacturing Systems I	Life-Cycle and Risk Analysis of Products	Dynamic Analysis of Manufacturing Systems	Manufacturing Technology I
11:00 - 11:20	Symbiotic Assembly Systems - A New Paradigm Pedro Ferreira*, Stefanos Doltsinis, Niels Lohse	Life-Cycle Risk Modeling: Alternate Methods Using Bayesian Belief Networks Joseph Amundson*, Adam Brown, Matthias Grabowski, Fazleena Badurdeen	Planning and Optimization of Changeable Production Systems by Applying an Integrated System Dynamic and Discrete Event Simulation Approach Florian Albrecht*, Oliver Kleine, Eberhard Abele	Exploitation-Optimized Technology Development - Method for Leveraging the Cross-Industry Potential of Manufacturing Technologies Günther Schuh, Myron Graw*, Nico Schön
11:20 - 11:40	Application of the Stage Gate Model in Production Supporting Quality Management Thorsten Wuest*, Ang Liu, Stephen C.-Y. Lu, Klaus-Dieter Thoben	Minimizing Product Liability Risks for Globally Manufacturing Automotive Organizations: Identification of Tasks with Impact on Product Safety Steffen Haefele*, Engelbert Westkämper	Evaluation of Capacity Control and Planned Lead Time Control in a Control-Theoretic Model Mathias Knollmann*, Katja Windt, Neil Duffie	Conditions for Bending of Thin Metal Sheet by Thermal Strain in Electrical Discharge Machining Katsushi Furutani*, Norimichi Yoshida
11:40 - 12:00	Improving Factory Planning by Analyzing Process Dependencies Christian Büscher*, Hanno Voet, Tobias Meisen, Moritz Krunke, Kai Kreisköther, Achim Kampker, Daniel Schilberg, Sabina Jeschke	A Method for Estimating and Evaluating Life Cycle Costs of Decentralized Component-Based Automation Solutions Tobias Helbig*, Johannes Hoos, Engelbert Westkämper	Adaptive Due Date Deviation Regulation using Capacity and Order Release Time Adjustment Ian Falu, Neil Duffie*	Analysis of the Process Dynamics for the Precision Honing of Bores Christina Schmitt*, Dirk Bähre
12:00 - 12:20	Generation of Block Diagonal Forms using Hierarchical Clustering for Cell Formation Problems Simon Li*, Houman Mehrabadi	Managing Product and Production Variety - A Language Workbench Approach Amir H. Ebrahimi*, Pierre E. C. Johansson, Kristofer Bengtsson, Knut Åkesson	Impact Of Dynamic Capacity Policies On WIP Level in Mix Leveling Lean Environment Ahmed M. Deif, Hoda ElMaraghy*	Improvement of Injection Moulding Processes by using Dual Energy Signatures Egon Müller, Rainer Schillig, Timo Stock*, Miriam Schmeiler
12:20 - 12:40	Improvement Heuristics for Manufacturing System Design Using Complex Network Figures Henning Blunck, Victor Vican, Till Becker*, Katja Windt	Consideration of Risk Management in Global Production Footprint Design Günther Schuh, Till Potente, Rawina M. Varandani, Carsten Witthohn*	Investigating Best Capacity Scaling Policies for Different Reconfigurable Manufacturing System Scenarios Shady S. Elmasry, Ayman M. A. Youssef*, Mohamed A. Shalaby	Applying Neural Network based on Fuzzy Cluster Pre-Processing to Thermal Error Modeling for Coordinate Boring Machine Jun Yang*, Hu Shi, Bin Feng, Liang Zhao, Chi Ma, Xue Mei

12:40 - 13:50

LUNCH (CEI 1100 Auditorium)

13:50 - 15:30

PARALLEL SESSIONS

	Session 5: Chair: Ayman M. A. Youssef Room: 1101	Session 6: Chair: Tim Mielke Room: 1102	Session 7: Chair: Michiko Matsuda Room: 2103	Session 8: Chair: Luc Laperrière Room: 2104
	Changeability, Flexibility and Reconfiguration of Manufacturing Systems I	Beyond Lean Manufacturing	Production Planning and Control I	Materials and Joining
13:50 - 14:10	Method for a situation-based adaptation and validation of the manufacturing capability of assembly systems Michael Neumann, Engelbert Westkämper*	Lean Leadership - 15 Rules for a Sustainable Lean Implementation Uwe Dombrowski, Tim Mielke*	Configuration of a Production Control System through Cooperation of Software Units using their Capability Profiles in the Cloud Environment Michiko Matsuda*, Kiminobu Kodama, Satoshi Noguchi, Sakuyuki Onishi, Toshikatsu Asano, Takuya Horikita, Kousuke Komatsubara	Quality Control in the Production Process of SMC Lightweight Material Alexandra Kraemer*, Song Lin, Daniel Brabandt, Thomas Böhlke, Gisela Lanza
14:10 - 14:30	Adaptability within a Variant Serial Production Uwe Dombrowski, Philipp Krenkel*, David Ebentreich	A New Set of Principles for Pursuing the Lean Ideal in Engineer-to-Order Manufacturers Daryl Powell*, Jan Ola Strandhagen, Iris Tommelein, Glenn Ballard, Monica Rossi	Assessment Methodology to Design an Ergonomic and Sustainable Order Picking System using Motion Capturing Systems Kirsten Weisner*, Jochen Deuse	A Novel Process for the Production of Unidirectional Hybrid Flax/Paper Reinforcement for Eco-Composite Materials Ehsan Ameri*, Gilbert Lebrun, Luc Laperrière
14:30 - 14:50	A Multi-Period Cell Formation Model for Reconfigurable Manufacturing Systems Mohamed Ossama, Ayman M. A. Youssef*, Mohamed A. Shalaby	Dynamic Lean Assessment for Takt Time Implementation Rehab M. Ali, Ahmed M. Deif*	Robust Metaheuristics for Scheduling Cellular Flowshop with Family Sequence-Dependent Setup Times Al-mehdi Ibrahim*, Tarek Elmekawy, Qingjin Peng	Workstation Configuration and Process Planning for RLW Operations Gábor Erdős, Csaba Kardos*, Zsolt Kemény, András Kovács, József Váncza
14:50 - 15:10	Role of Reconfigurable Manufacturing Systems (RMS) in South Africa Mining Machinery Industries Olasumbo Ayodeji Makinde*, Khumbulani Mpofo, Patricia P. Popoola	Transformation-Waves - A Brick for a Powerful and Holistic Continuous Improvement Process of a Lean Production System Carsten Intra, Thimo Zahn*	Increased Robustness of Product Sequencing using Multi-Objective Optimization Anna Syberfeldt*, Patrik Gustavsson	Design Method of Under-Body Platform Automotive Framing Systems Abdo Al-Zaher*, Waguih ElMaraghy
15:10 - 15:30	Structural Modeling of Extended Manufacturing Systems - An Approach to Support Changeability by Reconfiguration Planning Jonas Koch*, Sebastian Maisenbacher, Maik Maurer, Gunther Reinhart, Michael F. Zäh	Evaluation of Work Measurement Concepts for a Cellular Manufacturing Reference Line to enable Low Cost Automation for Lean Machining Stefan Seifermann*, Jörg Böllhoff, Joachim Metternich, Amin Bellaghnach	Adaptive Decision Support for Shop-Floor Operators in Automotive Industry Magnus Holm*, Aimar Cordero Garcia, Göran Adamson, Lihui Wang	Analysis of Friction and Burr Formation in Slot Milling Seyed Ali Niknam*, Victor Songmene

15:30 - 16:00 AFTERNOON BREAK (CEI Main Foyer)

16:00 - 17:40 PARALLEL SESSIONS

	Session 9: Chair: Kristian Martinsen Room:1101	Session 10: Chair: Ahmed M. Deif Room: 1102	Session 11: Chair: Tatsushi Nishi Room: 2103	Session 12: Chair: Horst Meier Room: 2104
	Quality of Products and Processes	Sustainability and Green Manufacturing	Supply Chain	Learning Factories and Manufacturing Education
16:00 - 16:20	Approaching the Devil in the Details; A Survey for Improving Tolerance Engineering Practice Lars Krogstie*, Kristian Martinsen, Bjørn Andersen	Energy Efficient Machining of Titanium Alloys by Controlling Cutting Temperature and Vibration Zhigang Wang*, Shogo Nakashima, Mark Larson [Originally scheduled in session 26]	Configuration of Assembly Supply Chain using Hierarchical Cluster Analysis Simon Li*, Pooya Daie	Mini-Factory - A Learning Factory Concept for Students and Small and Medium Sized Enterprises Dominik T. Matt, Erwin Rauch*, Patrick Dallasega
16:20 - 16:40	Improving Small-Quantity Assembly Lines for Complex Industrial Products by Adapting the Failure Process Matrix (FPM): A Case Study Mark Hillmann*, Sven Stühler, Alexander Schloske, Dirk Geisinger, Engelbert Westkämper	An Integrated Approach to Assess Manufacturing Greenness Level Ahmed H. Salem, Ahmed M. Deif*	Linking Supply Chain Strategy and Processes to Performance Improvement Madani Alomar*, Zbigniew J. Pasek	Holistic Learning Factories - A Concept to Train Lean Management, Resource Efficiency as well as Management and Organization Improvement Skills Dieter Kreimeier, Friedrich Morlock, Christopher Prinz*, Björn Krückhans, Dennis Cüneyt Bakir, Horst Meier
16:40 - 17:00	Integrating Quality and Lean into a Holistic Production System Geir Ringen*, Silje Aschehoug, Halvor Holtskog, Jonas Ingvaldsen	A Semantic Framework for Sustainable Factories Ludovico Danza, Anna Devitofrancesco, Stefano Gagliardo, Matteo Ghellere, Franca Giannini, Marina Monti, Giulia Pedrielli, Marco Sacco, Francesco Salamone, Walter Terkaj*	A Binary Quadratic Optimization Model for Three Level Supply Chain Design Sahand Ashtab*, Richard J. Caron, Esaighani Selvarajah	Integrating Manufacturing Education with Industrial Practice using Teaching Factory Paradigm: A Construction Equipment Application Loukas Rentzos, Michael Doukas, Dimitris Mavrikios, Dimitris Mourtzis, George Chryssolouris*
17:00 - 17:20	Sensory QFD: Matching Sensation with Measurement Björn Falk*, Robert Schmitt	Factory Planning System Considering Energy-Efficient Processes under Cloud Manufacturing Jumyung Um, Yong-Chan Choi*, Ian Stroud	A Supply Chain Planning Model with Supplier Selection under Uncertain Demands and Asymmetric Information Sisi Yin, Tatsushi Nishi*	Product Family Design for Changeable Learning Factories Ulf Wagner*, Tarek AlGeddawy, Hoda ElMaraghy, Egon Müller
17:20 - 17:40	Quality Value Stream Mapping Benjamin Haefner*, Alexandra Kraemer, Torsten Stauss, Gisela Lanza	Prioritizing Barriers to Green Manufacturing: Environmental, Social and Economic Perspectives Varinder Kumar Mittal*, Kuldip Singh Sangwan	Complexity Patterns in the Advanced Complexity Management of Value Networks Jens Jäger*, Andreas Kluth, Anja Schatz, Thomas Bauernhansl	Recipe-based Integrated Semantic Product, Process, Resource Digital Modelling Methodology Kwabena Agyapong-Kodua*, Csaba Haraszko, István Németh

17:45 - 19:00 RECEPTION (CEI Foyer)
19:00 Return from CEI to Hotels

Tuesday 29 April 2014

08:00 - 8:30 REGISTRATION (CEI Main Foyer)

08:30 - 10:30 PLENARY SESSION (CEI 1100 Auditorium)

Chair: Prof. Hoda ElMaraghy, Canada Research Chair in Manufacturing Systems, Conference Chair

08:30 - 09:00 Keynote Speaker: Laszlo Monostori, Budapest University, President, International Academy for Production Engineering (CIRP) *"Cyber-Physical Production Systems: Roots, Expectations and R & D Challenges"*

09:00 - 09:30 Keynote Speaker: Prof. Yoram Koren, James J. Duderstadt Distinguished U. Professor of Manufacturing, the University of Michigan, *"Scalability and Capacity Planning"*

09:30 - 10:00 Keynote Speaker: Prof. Tolio Tullio, Professor of Manufacturing and Production Systems at Politecnico di Milano (TU Milan) *"De-Manufacturing Systems"*

10:00 - 10:30 Keynote Speaker: Ms. Linda Hasenfratz, Chief Executive Officer, Linamar Corporation, Guelph, Ontario, Canada *"Innovation is the Cornerstone of Competitiveness -- How to Turn Canada into a Globally Recognized Hub of Innovation"*

10:30 - 11:00 MORNING BREAK (CEI Main Foyer)

11:00 - 12:40

PARALLEL SESSIONS

	Session 13: Chair: Olga Battaïa Room: 1101	Session 14: Chair: Tarek AlGeddawy Room: 1102	Session 15: Chair: Kirsten Tracht Room: 2103	Session 16: Chair: Pawel Pawlewski Room:2104
	Design of Manufacturing Systems II	Co-Development and Product Platform	Production Planning and Control II	Manufacturing Technology II
11:00 - 11:20	Lagrangian Relaxation for Stochastic Disassembly Line Balancing Problem Mohand Lounes Bentaha, Olga Battaïa*, Alexandre Dolgui	Integrated Product and Assembly Configuration Using Systematic Modularization and Flexible Integration Martin Landherr*, Engelbert Westkämper	Varying Repair Capacity in a Repairable Item System Kirsten Tracht, Lars Funke, Daniel Schneider*	CAD Kernel Based Simulation of Milling Processes Philipp Klimant*, Marco Witt, Michael Kuhl
11:20 - 11:40	Grouping Product Variants Based on Alternate Machines for Each Operation Javad Navaei, Hoda ElMaraghy*	Performance Measurement of Modular Product Platforms Günther Schuh, Stefan Rudolf, Till Vogels*	Combining a SysML-Based Modeling Approach and Semantic Technologies for Analyzing Change Influences in Manufacturing Plant Models Stefan Feldmann*, Konstantin Kernschmidt, Birgit Vogel-Heuser	Multimodal Approach to Modeling of Manufacturing Processes Pawel Pawlewski*
11:40 - 12:00	Cognitive Automation Strategies - Improving Use-Efficiency of Carrier and Content of Information Åsa Fast-Berglund*, Magnus Åkerman, Malin Karlsson, Vanesa Garrido-Hernández	Procedure to Match the Supply Chain Network Design with a Products' Architecture Florian G. H. Behncke*, Florian M. A. Walter, Udo Lindemann	Synchronization of the Manufacturing Process and On-Site Installation in ETO Companies Dominik T. Matt, Patrick Dallasega, Erwin Rauch*	An Application Case Study on Multi-sensor Data fusion System for Intelligent Process Monitoring Zhi-Jun Lu*, Qian Xiang , Lan Xu
12:00 - 12:20	Max-Plus Modeling of Manufacturing Flow Lines Abdulrahman Seleim, Hoda ElMaraghy*	Linking Product and Machine Network Structure using Nested Pattern Analysis Mirja Meyer*, Alexandra Brintrupb, Katja Windt	Multicriteria Inventory ABC Classification in an Automobile Rubber Components Manufacturing Industry K.Balaji, V.S.Senthil Kumar*	Using the TRL-Methodology to Design Supporting ICT-Tools for Production Operators Åsa Fast-Berglund*, Lars-Ola Bligård, Magnus Åkerman, Malin Karlsson
12:20 - 12:40	Grouping and Sequencing of Machining Operations for High Volume Transfer Lines Soumitra Bhale*, M. Fazle Baki, Ahmed Azab	Co-design of Products and Systems using a Bayesian Network Mohammad Hanafy, Hoda ElMaraghy*	Methodology for the Evaluation of Forecast Reliability of Production Planning Systems Günther Schuh, Till Potente, Annika Hauptvogel*	Process Planning For CNC Machining of Swedish Subcontractors - A Web Survey Staffan Anderberg, Tomas Beno*, Lars Pejryd

12:40 - 13:50

LUNCH (CEI 1100 Auditorium)

13:50 - 15:30

PARALLEL SESSIONS

	Session 17: Chair: Onur Kuzgunkaya Room: 1101	Session 18: Chair: Eric Sundin Room: 1102	Session 19: Chair: Dimitris Mourtzis Room: 2103	Session 20: Chair: Jill Urbanic Room: 2104
	Changeability, Flexibility and Reconfiguration of Manufacturing Systems II	Design of Products	Performance Analysis and Evaluation of Manufacturing Systems	Digital and Rapid Manufacturing
13:50 - 14:10	Matrix Structures for High Volumes and Flexibility in Production Systems Peter Greschke*, Malte Schönemann, Sebastian Thiede, Christoph Herrmann	A Method for Traceability and “As-Built Product Structure” in Aerospace Industry Erdal Tekin	Simulation-Based Performance Analysis of a Miniload Multishuttle Order Picking System Mustafa Güller*, Tobias Hegmanns	An Optimization Approach for Components Built by Fused Deposition Modeling with Parametric Internal Structures Luis Villalpando, Hasti Eiliat, Ruth Jill Urbanic*
14:10 - 14:30	Capacity Scalability in Robust Design of Supply Flow Subject to Disruptions Alireza E. Nejad, Onur Kuzgunkaya*	Involvement of Procurement in the Product Creation Process: A Systematization Scheme of Measures Florian G. H. Behncke*, Jonas Eichinger, Udo Lindemann	Development of a Method for Visualization and Evaluation of Production Logistics in a Multi-Variant Production Wilhelm Bauer, Oliver Ganschar*, Stefan Gerlach	Approaches for Additive Manufacturing of 3D Electronic Applications Johannes Hoerber*, Johannes Glasschroeder, Michael Pfeffer, Johannes Schilp, Michael Zaeh, Joerg Franke
14:30 - 14:50	An Integrated Approach to Analyze Change-Situations in the Development of Production Systems Konstantin Kernschmidt*, Florian Behncke, Nepomuk Chucholowski, Martina Wickel, Gülden Bayrak, Udo Lindemann, Birgit Vogel-Heuser	Design for Manufacturing of Structural Parts in Carbon Fiber Composite Materials - The Development of a DFM-Strategy for SAAB Aerostructures Frida Andersson, Astrid Hagqvist, Erik Sundin*, Mats Björkman	Development of an Assessment Framework for Operations Excellence (OsE) Based on the Paradigm Change in Operational Excellence (OE) Andreas Jaeger*, Kurt Matyas, Wilfried Sihh	Use of Artificial Neural Networks for the Development of an Inverse Kinematic Solution and Visual Identification of Singularity Zone(s) Luv Aggarwal*, Kush Aggarwal, Ruth Jill Urbanic
14:50 - 15:10	Deriving a Systematic Approach to Changeable Manufacturing System Design Emmanuel Francalanza*, Jonathan Borg, Carmen Constantinescu	Modular Sensor Platform for Service-oriented Cyber-Physical Systems in the European Tool Making Industry Günther Schuh, Martin Pitscha, Stefan Rudolf, Wilhelm Karmann*, Martin Sommer	Approach for Predicting Production Scenarios Focused on Cross Impact Analysis Nicole Menck*, Christian Weidig, Jan C. Aurich	Study on Impact of CAD / CAM Tools on Production of Punched Cards by Indian Silk Saree Designers for Handloom Industry K. Shanmuga Sundaram, M. Prakash*
15:10 - 15:30	Approach for Measuring Change-Induced Complexity Based on the Production Architecture Florian Schoettl*, Max-Christian Paefgen, Udo Lindemann	Integrating Product Characteristics into Extended Value Stream Modeling Malte Schönemann*, Sebastian Thiede, Christoph Herrmann	Knowledge-Based Estimation of Manufacturing Lead Time for Complex Engineered-to-Order Products Dimitris Mourtzis*, Michael Doukas, Katerina Fragou, Kostas Efthymiou, Violeta Matzourou	Analysis of Laser Cladding Bead Morphology for Developing Additive Manufacturing Travel Paths Syed Saqib, Ruth J. Urbanic*, K. Aggarwal

15:30 - 16:00

AFTERNOON BREAK (CEI Main Foyer)

16:00 - 17:40

PARALLEL SESSIONS

	Session 21: Chair: Sameh Badrous Room: 1101	Session 22: Chair: Zbigniew J. Pasek Room: 1102	Session 23: Chair: Guoqing Zhang Room: 2103	Session 24: Chair: Elsayed Orady Room: 2104
	Complexity Management	Managing Product Variety	Logistics	Automation and Control
16:00 - 16:20	Complexity Analysis for Problem Definition in an Assemble-to-Order Process: Engaging Emic and Etic Perspectives Victoria Townsend*, Jill Urbanic	Similarity-based Product Configuration Günther Schuh, Stefan Rudolf, Michael Riesener*	Towards Definition of Synchronization in Logistics Systems Stanislav M. Chankov*, Till Becker, Katja Windt	Communication Mechanisms for Cloud Based Machine Controls Jan Schlechtendahl*, Felix Kretschmer, Armin Lechler, Alexander Verl
16:20 - 16:40	Cyber Physical Systems for Life Cycle Continuous Technical Documentation of Manufacturing Facilities André Barthelmey*, Denis Störkle, Bernd Kuhlenkötter, Jochen Deuse	Impact of Product Variety on Supply Chain in Fast Fashion Apparel Industry Marzieh Mehrjoo*, Zbigniew J. Pasek	Planning of Logistics for Large-Scale Production of Metal-Plastic-Hybrid Components Ulf Wagner*, Ralph Riedel, Egon Müller, Friedrich Kimme	Control System for Electro-Hydraulic Synchronization on RBPT Olukorede Adenuga*, Khumbulani Mpfu
16:40 - 17:00	Managing Production Complexity by Empowering Workers: Six Cases Sandra Mattsson*, Malin Karlsson, Åsa Fast-Berglund and Ida Hansson	Product Family Formation for Reconfigurable Assembly Systems Mohamed Kashkoush, Hoda ElMaraghy*	Facility Location Decisions Within Integrated Forward/Reverse Logistics under Uncertainty Hamid Ashfari, Masoud Sharifi*, Tarek Y. ElMekkawy, Qingjin Peng	Control Parameters Auto-Tuning for Bi-Axial Servo Feed System Bin Feng*, Dongsheng Zhang, Jun Yang, Jiangong Ren
17:00 - 17:20	Complexity Analysis of Two Methods for Calculating Jacobian Matrix of 6DOF Reconfigurable Machinery System Monika Z. Filiposka*, Ana M. Djuric, Waguih ElMaraghy	Grouping Parts for Multiple Parts Production in Additive Manufacturing Yicha Zhang*, Alain Bernard	Effectuation in Manufacturing: How Entrepreneurial Decision-Making Techniques can be used to Deal with Uncertainty in Manufacturing Malte Brettel, David Bendig, Michael Keller, Niklas Friederichsen, Marius Rosenberg*	Towards 100% in-situ 2D/3D Quality Inspection of Metallic Micro Components using Plenoptic Cameras Daniel Weimer*, Hendrik Thamer, Carolin Fellmann, Michael Lütjen, Klaus-Dieter Thoben, Bernd Scholz-Reiter
17:20 - 17:40	Evaluation of Complexity Management Systems - Systematical and Maturity-Based Approach Andreas Kluth*, Jens Jäger, Anja Schatz, Thomas Bauernhansl	Convertibility Indicator For Manual Mixed-Model Assembly Lines Meriem Lafou*, Luc Mathieua, Stéphane Pois, Marc Alochet	Dual-Channel Supply Coordination in Online Shopping Guoqing Zhang*, Xuan Wang	A Reconfigurable Tooling System for Producing Plastic Shields Dominik Simon*, Lisa Kern, Julia Wagner, Gunther Reinhart

17:45

Return from CEI to Hotels

19:00 - 22:00

CONFERENCE BANQUET & BEST PAPER AWARD (Caesars Windsor Ballroom)

Wednesday 30 April 2014

08:00 - 8:30 REGISTRATION (CEI Main Foyer)

08:30 - 10:30 PLENARY SESSION (CEI 1100 Auditorium)

Chair: Prof. Waguih ElMaraghy, Director Intelligent Manufacturing Systems Centre (IMSC), Conference Co-Chair

08:30 - 09:00 Keynote Speaker: Prof. Neil Duffie, Professor and past Chair, Department of Mechanical Engineering, College of Engineering, University of Wisconsin-Madison, *"Control Theoretical Modeling of Transient Behavior of Production Planning and Control: A Review"*

09:00 - 09:30 Panel: *"Manufacturing Systems Outlook"*; Prof. Hoda ElMaraghy, Prof. Kanji Ueda, and Prof. Michael Abramovici

09:30 - 10:30 Guided Tour of the *iFactory*, Intelligent Manufacturing Systems Centre (IMSC) (CEI 1212)

10:30 - 11:00 MORNING BREAK (CEI Main Foyer)

11:00 - 12:40 PARALLEL SESSIONS

	Session 25: Chair: Fazleena Badrurdeen Room: 1101	Session 26: Chair: Egon Müller Room: 1102	Session 27: Chair: Daryl Powell Room: 2103	Session 28: Chair: Ibrahim Deiab Room: 2104
	Design of Manufacturing Systems III	Energy-Efficient Processes and Systems	Production Networks	Manufacturing Technology III
11:00 - 11:20	Efficient Multi-Objective Optimization Method for the Mixed-Model-Line Assembly Line Design Problem Jonathan Oesterle*, Lionel Amodeo	An Approach for Reducing Energy Consumption in Factories by Providing Suitable Energy Efficiency Measures Manuela Kroner*, Egon Müller	Distribution-Service Network Design: An Agent-Based Approach Hamid Afshari*, Robert D. McLeod, Tarek ElMekkawy, Qingjin Peng	New Trajectories in EBM Manufacturing to Reduce Curling Effect Nicolas Béraud*, Frédéric Vignat, François Villeneuve, Remy Dendievel

11:20 - 11:40	Architecture Framework for Manufacturing System Design Nadège Benkamoun*, Waguih ElMaraghy, Anne-Lise Huyet, Khalid Kouiss	Exergy Analysis as a Developed Concept of Energy Efficiency Optimized Processes: The Case of Thermal Spray Processes Kamran Taheri, Rainer Gadow, Andreas Killinger*	Agility Enablers in Production Networks - Pooling and Allying of Manufacturing Resources Max Monauni*	Digital Modelling Methodology for Effective Cost Assessment Kwabena Agyapong-Kodua*, Ken B. Asare, Darek J. Ceglarek
11:40 - 12:00	Cloud-Based Manufacturing: Old Wine in New Bottles? Dazhong Wu, David W. Rosen, Lihui Wang, Dirk Schaefer*	Discrete Event Simulation of Individual Energy Consumption for Product-Varieties Johannes Kohl*, Simon Spreng, Jörg Franke	Globally Distributed Engineering Processes: Making the Distinction between Engineer-to-Order and Make-to-Order Olga Willner*, Daryl Powell, Aldo Duchi, Paul Schönsleben	A Coupled FE and CFD Approach to Predict the Cutting Tool Temperature Profile in Machining Salman Pervaiz*, Ibrahim Deiab, Essam Moustafa Wahba, Amir Rashid, Mihai Nicolescu
12:00 - 12:20	Mental Strain as Field of Action in the 4th Industrial Revolution Uwe Dombrowski, Tobias Wagner*	Handling Hazardous Part Variety: Metalcasting as a Case Point Rhythm S. Wadhwa* [Originally scheduled in session 10]	Analyzing Single and Multiple Customer Order Decoupling Point Positioning based On Customer Value: A Multi-Objective Approach Hesam Shidpour*, Catherine Da Cunha, Alain Bernard	Analysis of Lubrication Strategies for Sustainable Machining during Turning of Titanium Ti-6Al-4V Alloy Ibrahim Deiab, Syed W. Raza*, Salman Pervaiz
12:20 - 12:40	Model-Based Approach for Assessing Value Creation to Enhance Sustainability in Manufacturing Pinar Bilge*, Fazleena Badurdeen, Günther Seliger, I.S. Jawahir	A Reduced Model for Energy Consumption Analysis in Milling Stefano Borgia*, Stefania Pellegrinelli, Giacomo Bianchi, Marco Leonasio	Optimizing Multi-Objective Dynamic Facility Location Decisions within Green Distribution Network Design Hamid Afshari*, Masoud Sharafi, Tarek ElMekkawy, Qingjin Peng	Determination of Machinability Considering Degradation of Accuracy over Machine Tool Life Cycle Behnood Afsharizand, Xianzhi Zhang, Stephen T. Newman, Aydin Nassehi*

12:40 - 12:50 CLOSING SESSION & Announce the 48th CMS 2015 Conference (CEI 1100 Auditorium)

12:50 - 13:50 LUNCH (CEI 1100 Auditorium)

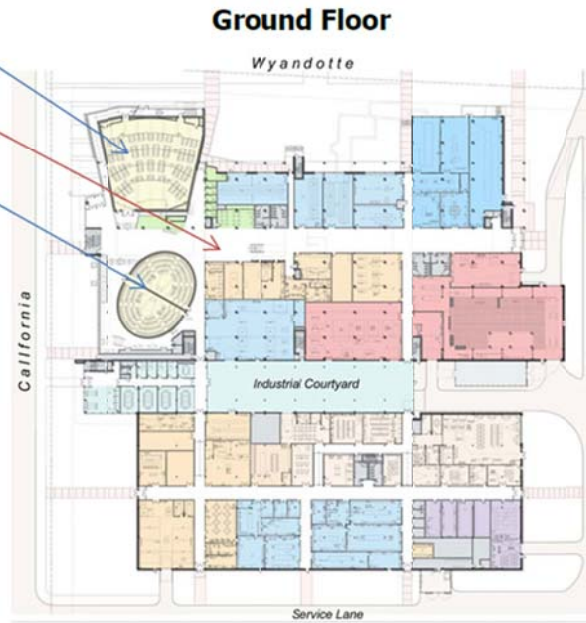
13:50 Return from CEI to Hotels

Meeting Rooms in the Venue – CEI (Centre for Engineering Innovation)

CEI 1100
Registration & Breaks in Foyer
CEI 1101 & CEI 1102



Ground Floor Auditoria



Second Floor
CEI 2103 CEI 2104 CEI 2100



Third Floor
Room CEI 3000 Roof Garden

