

**6<sup>th</sup> CIRP CONFERENCE ON  
Industrial Product Service Systems (IPSS 2014)  
PROGRAM**

22 April 2014 (Rev#3)

**Wednesday 30 April 2014**

- 14:00 - 17:00**      **Early Bird Registration (CEI Foyer)**
- 14:15 - 15:30**      **Educational Games Event (I) - (CEI 2102, 2103 and 2104)**  
*- Indication of interest in participation is needed a priori.*
- Three (3) Game Themes will be played in parallel (total 42 participants):**
- 1. Edutainment for Designing Integrated Product-Service Systems (EDIPS)*  
Two teams of 10 players each, Prof. Y. Shimomura (CEI 2104)
  - 2. Manufacturing Systems & Variety Games*  
Two teams of 6 players each, Prof. H. ElMaraghy (CEI 2103)
  - 3. Cost Effective Games for Large Classes*  
Two teams of 5 players each, Prof. Z. Pasek (CEI 2102)
- 15:30 - 16:00**      **AFTERNOON BREAK (CEI Foyer)**
- 16:00 - 17:20**      **Educational Games Event (II): Panel on Use of Educational Games in Education and Business (CEI 1101); Chair: Prof. Waguih ElMaraghy, University of Windsor, Canada**  
**Panel Members:** Business Game "Holistic", Mr. M. Schönemann, Germany, Edutainment Games, Prof. Y. Shimomura, Japan; Games for Large Classes, Prof. Z. Pasek, Canada; Manufacturing Systems Games, Prof. H. ElMaraghy, Canada  
**Open Discussion, All are welcome.**
- 17:30 - 19:30**      **REGISTRATION & RECEPTION (CEI 3000 & Roof Garden)**

## Thursday 1 May 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)
- 08:30 – 09:00           Introduction  
Prof. Hoda ElMaraghy, Canada Research Chair in Manufacturing Systems, Conference Co-Chair  
Dr. R. Robert Orr, Provost and Vice-President Academic (Acting)  
Prof. Jay Lee, University of Cincinnati, Conference Co-Chair
- 09:00 – 09:30           Keynote Speaker: Prof. Jay Lee, L.W. Scott Alter Chair Professor, and Distinguished Univ. Professor at the Univ. of Cincinnati, *“Service Innovation and Smart Analytics for Industry 4.0 and Big Data Environment”*
- 09:30 – 10:00           Keynote Speaker: Prof. Rajkumar Roy, Head of Manufacturing & Materials Department, Cranfield University, *“Service Knowledge Capture and Reuse”*
- 10:00 – 10:30           Keynote Speaker: Prof. Yoshiki Shimomura, Department of System Design, Tokyo Metropolitan, *“The State-of-the-Art Product-Service Systems in Japan - The Latest Japanese Product-Service Systems Development”*
- 10:30 – 11:00           **GROUP PICTURE & MORNING BREAK (CEI Main Foyer)**

11:00 - 12:40

PARALLEL SESSIONS

	Session 1: Chair: Daniel Battaglia Room: CEI 1101	Session 2: Chair: Horst Meier Room: CEI 1102	Session 3: Chair: Rainer Stark Room: CEI 2104
	Value Creation	Performance Indicators and Assessment	Knowledge Generation, Training and Education
11:00 - 11:25	<p>Creating Value through Services and Relationships: The Perception of Purchasing Companies</p> <p><b>Daniel Battaglia*</b>, Cristiano D. Schimith, Marcelo A. Marciano, Sandro A. M. Bittencourt, Letícia Diesel, Miriam Borchardt, Giancarlo M. Pereira</p>	<p>Balancing Product-Service Provider's Performance and Customer's Value: the Service Engineering Methodology (SEEM)</p> <p>Giuditta Pezzotta*, <b>Roberto Pinto</b>, Fabiana Pirola, Mohamed-Zied Ouertani</p>	<p>Research on how to Introduce the PSS Engineering into Industry</p> <p>Hoai Nam Nguyen*, Christian Schnürmacher, <b>Rainer Stark</b></p>
11:25 - 11:50	<p>A Framework for Value Co-Creation through Customization and Personalization in the Context of Machine Tool PSS</p> <p><b>Pankaj U. Zine*</b>, Makarand S. Kulkarnib, Rakesh Chawlac, Arun K. Ray</p>	<p>Concept for a Performance Measurement Method for the Organization of the IPS<sup>2</sup> Delivery</p> <p><b>Friedrich Morlock*</b>, Thomas Dorka, Horst Meier</p>	<p>Cutting Manufacturing Failure Costs in the Tool and Die Industry by Implementing a Knowledge Transfer System to Avoid and Correct Mistakes More Effectively</p> <p>Günther Schuh, Martin Pitsch, Nicolas Komorek, Max Schippers, <b>Michael Salmen*</b></p>
11:50 - 12:15	<p>Knowledge Management in Value Creation Networks: Establishing a New Business Model through the Role of a Knowledge-Intermediary</p> <p><b>Pascal Krenz*</b>, Sissy-Ve Basmer, Sonja Buxbaum-Conradi, Tobias Redlich, Jens Wulfsberg</p>	<p>Service Performance Monitoring and control Toolset</p> <p>Marco Taisch, Mohammadreza Heydari*, Alessandra Carosi, <b>Christian Zanetti</b></p>	<p>Knowledge Evaluation for PSS Providers</p> <p><b>Sebastian A. SchenkI*</b>, Danilo M. Schmidt, Damian Schockenhoff, Maik Maurer</p>
12:15 - 12:40	<p>The Impact of Openness on Value Co-Creation in Production Networks</p> <p>Tobias Redlich*, Pascal Krenz, Sissy-Ve Basmer, <b>Sonja Buxbaum-Conradi</b>, Stefanie Wulf, Jens P. Wulfsberg</p>	<p>Validation of Product-Service Systems - A Prototyping Approach</p> <p><b>Konrad Exner*</b>, Kai Lindow, Christian Buchholz, Rainer Stark</p>	<p>Strategic Thinking in EDIPS: Edutainment for Designing Integrated Product-Service System</p> <p><b>Yutaro Nemoto*</b>, Kentaro Uei, Takashi Fujiwara, Satoshi Mizoguchi, Yoshiki Shimomur</p>

12:40 - 13:50

LUNCH (CEI 1100 Auditorium)

13:50 - 15:30

PARALLEL SESSIONS

	Session 4: Chair: Nariaki Nishino Room: CEI 1101	Session 5: Chair: Peggy Zwolinski Room: CEI 1102	Session 6: Chair: Michael Abramovici Room: CEI 2104
	<b>Industrial Marketing</b>	<b>Sustainability</b>	<b>Lifecycle Product-Service Management</b>
13:50 - 14:15	Literature Study on Factors Influencing the Market Acceptance of PSS  <b>Sebastian A. SchenkI*</b> , Christian Rösch, Markus Mörtl	Scenarios as a Tool for Transition towards Sustainable PSS  Alan Lelah*, Xavier Boucher, Valentine Moreau, <b>Peggy Zwolinski</b>	Interaction within Dynamic IPS <sup>2</sup> Networks - A Proposal of an IPS <sup>2</sup> Lifecycle Management and IPS <sup>2</sup> Delivery Management Architecture Thomas M. Dorka*, Hoang Bao Dang, Horst Meier, Michael Abramovici
14:15 - 14:40	Product Families and Platforms Diversification: Customer Expectations, Product Variations, or Self-Competition?  <b>Kalid Ramadan*</b> , Dr. Waguih ElMaraghy	Design for Mobility - A Customer Value Creation Approach  <b>Tarek AlGeddawy*</b> , Mohamed Abbas, Hoda ElMaraghy	Impact of Electric Mobility on the After Sales Service in the Automotive Industry Uwe Dombrowski, <b>Christian Engel*</b>
14:40 - 15:05	Extended Product Business Model Development in Four Manufacturing Case Studies  <b>Stefan Wiesner*</b> , Philippe Padrock, Klaus-Dieter Thoben	Scenarios for Resource Efficient Rail Infrastructure- Applying Integrated Product Service Offerings  <b>Sofia Lingegård*</b> and Niclas Svensson	Overview of Remaining Useful Life Prediction Techniques in Through-Life Engineering Services Caxton Okoh*, <b>Rajkumar Roy</b> , Jörn Mehnen, Louis Redding
15:05 - 15:30	Product Differentiation and Consumer's Purchase Decision-making under Carbon Footprint Scheme  <b>Nariaki Nishino*</b> , Kenju Akai, Haruaki Tamura	PSS Sustainability Assessment and Monitoring framework (PSS-SAM) - Case study of a multi-module PSS Solution  Michael Abramovici, Youssef Aidi, Akamitl Quezada*, Thomas Schindler	Design of Market Positioning Model for Resource Efficient Tools Considering the Entire Lifecycle Günther Schuh, Martin Pitsch, Max Schippers*  Procurement of Reconfigurable Assembly System A Justification For Effective Production Ramp Up Planning <b>Zulfiqar Ali-Qureshi*</b> , Waguih H. ElMaraghy

15:30 - 16:00

**AFTERNOON BREAK (CEI Main Foyer)**

16:00 - 17:40

**PARALLEL SESSIONS**

	Session 7: Chair: Vinit Parida Room: CEI 1101	Session 8: Chair: Koji Kimita Room: CEI 1102	Session 9: Chair: Uta Wilkens Room: CEI 2104
	<b>New Business Models and Innovation I</b>	<b>Risk and Quality Management I</b>	<b>Human-Related Aspects</b>
16:00 - 16:25	A Survey Study of the Transitioning towards High-Value Industrial Product-Services  <b>Vinit Parida*</b> , David Rönnerberg Sjödin, Joakim Wincent, Marko Kohtamäki	The nature of risk management in the early phase of IPS <sup>2</sup> design  <b>Michael Herzog*</b> , Daniel Meuris, Beate Bender, Tim Sadek	Preparing Individuals for the Demands of PSS Work Environments through a Game-Based Community Approach - Design and Evaluation of a Learning Scenario  <b>Thomas Süße*</b> , Uta Wilkens
16:25 - 16:50	EMOTIO - Design of a Toolkit Enabling User Innovation  Sean Humphrey*, Matthis Laass, <b>Björn Falk</b> , Dieter Drobny, Robert Schmitt	Network-Oriented Uncertainty Evaluation of Industrial Product-Service Collaborative Readiness  <b>Christopher Durugbo*</b> , Xiaojun Wang	What Leadership Pattern can be Observed in IPS <sup>2</sup> Work Systems when Compared with Production and Service?  <b>Bernd-Friedrich Voigt*</b> , Ksenia Mänz and Uta Wilkens
16:50 - 17:15	Evaluation of an IPS <sup>2</sup> Delivery Planning Approach in Industry - Limitations and Necessary Adaptations  <b>Henning Lagemann*</b> , Thomas Dorka, Horst Meier	A Method for Analyzing Service Failure Factors based on Multiple Perspectives  <b>Junpei Saito*</b> Yusuke Kurita, Koji Kimita, Yoshiki Shimomura	Personal Wellness: Complex and Elusive Product and Distributed Self-Services  <b>Farzaneh Salamati</b> , Zbigniew J. Pasek*
17:15 - 17:40	Guidelines for the Definition of innovative Industrial Product-Service Systems (PSS) Business Models for Remanufacturing  <b>Thomas Guidat*</b> , Ana Paula Barquet, Henry Widera, Henrique Rozenfeld, Günther Seliger	The Dark Side of Providing Industrial Product-Service Systems - Perceived Risk as a Key Challenge from a Customer-Centric Point of View  <b>Kira Maiwald*</b> , Jan Wieseke, Julian Everhartz	The Impact of Servitization on Corporate Culture  <b>Nadine Dubruc*</b> , <b>Sophie Peillon</b> , Abdallah Farah

- 17:40 - 18:00      Announce 7<sup>th</sup> IPSS 2015 (CEI 1100)
- 18:00                Return from CEI to Hotels
- 19:00 - 22:00      CONFERENCE BANQUET & BEST PAPER AWARD (Waterfront Hotel)

**Friday 2 May 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
- 08:30 - 09:00      Keynote Speaker: Prof. Alain Bernard, Ecole Centrale de Nantes, France, Chairman of CIRP STC Design  
*"Multi-Physical Simulation for Product-Service Performance Assessment"*
- 09:00 - 09:30      Panel: *"Trends in IPSS"*; Prof. Hoda ElMaraghy, Prof. Horst Meier, Prof. Rainer Stark, Prof. Y. Shimomura
- 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

	<b>Session 10:</b> Chair: Marion Steven Room: CEI 1101	<b>Session 11:</b> Chair: Mattias Lindahl Room: CEI 1102	<b>Session 12:</b> Chair: Xavier Boucher Room: CEI 2104
	<b>IPSS Strategies</b>	<b>Industrial Applications</b>	<b>Risk and Quality Management II</b>
11:00 - 11:25	A Technology-centered Framework for Product-Service Systems  <b>Sebastian A. Schenkl*</b> , Roman M. Sauer, Markus Mörtl	Actor's and System Maps for Integrated Product Service Offerings - Practical Experience from Two Companies  <b>Mattias Lindahl*</b> , Tomohiko Sakao, Emma Carlsson	Asset-based Service Production under Uncertainty  <b>Shigeru Hosono*</b> , Yoshiki Shimomura
11:25 - 11:50	Intellectual Capital Statement in IPS <sup>2</sup>  <b>Jakub Wewior*</b> , Solmaz Alevifard, Holger Kohl, Marion Steven, Günther Seliger	At a Crossroads: Case Study Analysis of the Organizational Challenges within the Transformation Path to an IPS <sup>2</sup>  Sofi W. Elfving, Nina Washington, <b>Antje Lienert*</b> , Ksenia Mänzb, Uta Wilkens	Quality Assessment of Technical Product-Service Systems in the Machine Tool Industry  <b>Gülsüm Mert*</b> , Sebastian Waltemode, Jan C. Aurich
11:50 - 12:15	Identifying and Analyzing the Customer Situation: Drivers for Purchasing Industrial Product Service Systems  Julian Everhartz, <b>Kira Maiwald*</b> , Jan Wieseke	Processes for the Introduction of the Maintenance Service Support System  Eckart Uhlmann, <b>Franz Otto*</b>	Towards a Reliability Diagnosis for Servitization Decision-Making Process  Sarra Dahmani, <b>Xavier Boucher</b> , Didier Gourc, François Marmier, Sophie Peillon
12:15 - 12:40	Strategic Adaptability of Industrial Product-Service-Systems - Dynamic Effective IPS <sup>2</sup>  <b>Lisa Grandjean*</b> , Solmaz Alevifard, Marion Steven	Managing Integrated Information Flow for Industrial Service Partnerships: A Case Study of Aerospace Firms  <b>Christopher Durugbo*</b> , John A. Erkoynucu	Are IPS <sup>2</sup> always a Solution? Obstacles towards Buying Industrial Product Service Systems  <b>Judith Gesing*</b> , Kira Maiwald, Jan Wieseke, Ramona Sturm

12:40 - 13:50

LUNCH (CEI 1100 Auditorium)

13:50 - 15:30

PARALLEL SESSIONS

	Session 13: Chair: Tomohiko Sakao Room: CEI 1101	Session 14: Chair: Henrique Rozenfeld Room: CEI 1102	Session 15: Chair: John Lindström Room: CEI 2104
	Design Tools and Methodologies	New Business Models and Innovation II	IT and Cyber Technology
13:50 - 14:15	Development of the Design Guideline for Product-Service Systems  Koji Kimita*, Yoshiki Shimomura	Developing of Customized Innovative Business Models for Shape Memory Technology  Christian Rathmann*, André Coelho Nunes, Mario Boßlau, Horst Meier	Use of Cloud Services in Functional Products: Availability Implications  John Lindström*, Magnus Lofstrand, Sean Reed, Ahmad Alzghoul
14:15 - 14:40	Application of Prospect Theory on Car Sharing Product Service System  Ang Liu*, Thorsten Wuest, and Stephen Lu	A Method for Impact Analysis of Cyclic Changes within Innovation Processes of PSS  Daniel Kasperek*, Nepomuk Chucholowski, Sebastian Maisenbacher, Udo Lindemann, Maik Maurer	Data Interfaces of IPS <sup>2</sup> -Execution Systems - Connecting Virtual Organization Units for the Delivery Management of IPS <sup>2</sup>  Thomas Dorka*, Friedrich Morlock, Horst Meier
14:40 - 15:05	Applicability of Agent-Based Modeling for Supporting Product-Service System Development  Sebastian Maisenbacher*, Dominik Weidmann, Daniel Kasperek, Mayada Omer	A Proposal to Support the Value Proposition in Product Oriented Service Business Model of Product Service Systems  Kênia Fernandes de Castro Rodrigues*, Vanessa Nappi, Henrique Rozenfeld	IT Support in the Fuzzy Front End of Industrial Product Service Design  Daniel Meuris*, Michael Herzog, Beate Bender, Tim Sadek
15:05 - 15:30	PCP (Provider - Customer - Product) Triangle: How Can Manufacturing Intelligence be Maintained?  Tomohiko Sakao*, Mattias Lindahl	Operationalizing IPS <sup>2</sup> Development Process: A Method for Realizing IPS <sup>2</sup> Developments Based on Process-Based Project Planning  Hoi Nam Nguyen*, Konrad Exner, Christian Schnürmacher, Rainer Stark	Towards an Understanding of Cyber-Physical Systems as Industrial Software-Product-Service Systems  Martin Mikusz*

15:30 - 15:40

CLOSING SESSION (CEI 1100 Auditorium)

15:40

Return from CEI to Hotels

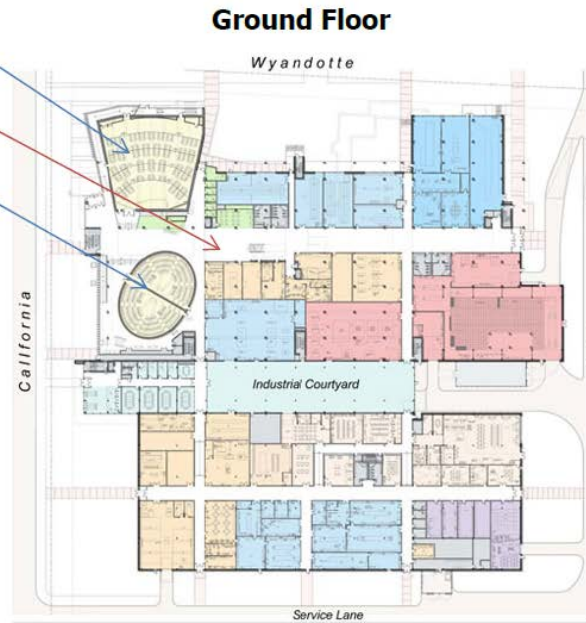


# Meeting Rooms in the Venue – CEI (Centre for Engineering Innovation)

**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**

