



Program for Podium Sessions of the 10th CIRP IPS² Conference

May 30 (Day 2)

1A. PSS design 1 (09:00-10:30)

Moderators: Marco Bertoni; Tomohiko Sakao

1A-1	Complexity in Product-Service Systems: Review and Framework	Wenting Zou; Saara Brax; Risto Rajala
1A-2	Modeling Framework for Integrated, Model-based Development of Product-Service Systems	Hrsito Apostolov; Matthias Fischer; Daniel Olivotti; Sonja Dreyer; Michael H. Breitner; Martin Eigner
1A-3	Assessing PSS from a multi stakeholders' perspective: the application of the EVA method in the airport context	Margherita De Vivo; Alice Rondini; Giuditta Pezzotta
1A-4	Integrating usage information into quality function deployment for further PSS development	Tatsunori Hara

1B. PSS modeling (09:00-10:30)

Moderators: Yoshiki Shimomura; Carl Dalhammar

1B-1	Smart Product-Service Systems (Smart PSS) in Industrial Firms: A Literature Review	Soumitra Chowdhury; Darek Haftor; Natalia Pashkevich
1B-2	Product-Service Systems lifecycle models: literature review and new proposition	Juliana Cavalcante; Lilia Gzara
1B-3	A Meta-model for Product-Service System based on Systems Engineering approach	Elaheh Maleki; Farouk Belkadi; Alain Bernard
1B-4	Digitalisation as an enabler of Circular Economy	Maria Johanna Antikainen; Teuvo Uusitalo; Päivi Kivikytö-Reponen

2A. PSS design 2 (11:00-12:30)

Moderators: Alice Rondini; Erik Sundin

2A-1	Systematic Prototyping of Product-Service Systems	Julian Ilg; Claas Christian Wuttke; Andre Siefert
2A-2	A Bayesian network model for supporting the formation of PSS design knowledge	Tsutsui Yusuke; Kubota Yosuke; Shimomura Yoshiki
2A-3	A simplified approach towards customer and provider value in PSS for small and medium-sized enterprises	Alice Rondini; Johannes Matschewsky; Giuditta Pezzotta; Marco Bertoni
2A-4	A new method for Product Service System: the case of urban waste management	Martina Scafà; Sara Carbonari; Alessandra Papetti; Marta Rossi; Michele Germani

2B. Organization for PSS (11:00-12:30)

Moderators: Giuditta Pezzotta; Wisdom Kanda

2B-1	Circular Economy: Overview of Barriers	Graziela Darla Araujo Galvão; Jeniffer Nadea; Diego H Clemente; Guilherme Chinen; Marly M Carvalho
2B-2	A PSS maturity self-assessment tool	Konrad Exner; Juliane Balder; Rainer Stark
2B-3	Service and customer orientation of corporate culture in a French manufacturing SME	Sophie Peillon; Nadine Dubruc; Mary Mansour
2B-4	Development of the urban and industrial symbiosis in western Mälardalen	Martin Kurdve; Christina Jönsson; Ann-Sofie Granzell

3A. Smart PSS and digitalization 1 (13:30-15:00)

Moderators: Lilia Gzara; Yang Liu

3A-1	Building blocks for planning and implementation of smart services based on existing products	Martin Rabe; Tobias Mittag; Till Gradert; Arno Kühn; Roman Dumitrescu
3A-2	Identifying challenges in quantifying uncertainty: case study in infrared thermography	Alex Grenyer; Sri Addepalli; Yifan Zhao; Luke Oakey; John A Erkoyuncu; Rajkumar Roy
3A-3	Agile Product-Service Design with VR-technology: A use case in the furniture industry	Mike Freitag; Phil Westner; Christian Schiller; Maria Jose Nunez; Fernando Gigante; Soledad Berbegal
3A-4	A service design framework for the initial phase of service development	Saed Imran; Christian van Husen; Dieter Haeberle

3B. Circular Economy and PSS (13:30-15:00)

Moderators: Arnold Tukker; Maria Antikainen

3B-1	Implementation of Circular Economy principles in PSS operations	Carl Kühn; Benny Tjahjono; Michael Bourlakis; Emel Aktas
3B-2	Analysing interplays between PSS business models and governmental policies towards a circular economy	Raphael Wasserbaur; Tomohiko Sakao
3B-3	The use of public procurement to incentivize longer lifetime and remanufacturing of computers	Katarina Crafoord; Carl Dalhammar; Leonidas Milios
3B-4	Defining value creation in the context of circular PSS	Tobias Benjamin Widmer; Benny Tjahjono; Michael Bourlakis

4A. Smart PSS and digitalization 2 (15:30-17:00)

Moderators: George Huang; Thomas Suesse

4A-1	Towards Service 4.0: a new framework and research priorities	Theoni Paschou; Federico Adrodegari; Mario Rapaccini; Nicola Saccani; Marco Perona
4A-2	A perspective on value co-creation-oriented framework for smart product-service system	Zhiwen Liu; Xinguo Ming; Wenyan Song; Siqi Qiu; Yuanju Qu
4A-3	Analysis of Interactions and Support of Decision Making for the Implementation of Manufacturing Systems 4.0 Methods	Christoph Liebrecht; Sebastian Schaumann; Daniel Zeranski; Alica Antoszkiewicz; Gisela Lanza
4A-4	Key challenges of digital business ecosystem development and how to cope with them.	Kay Lenkenhoff; Uta Wilkens; Maokuan Zheng; Thomas Süße; Bernd Kühlenkötter; Xinguo Ming
4A-5	Cybersecurity level in IPS2: A case study of two industrial internet-based SME offerings	John David Lindström; Jens Eliasson; Anders Hermanson; Fredrik Blomstedt; Petter Kyösti

4B. Business model for and implementation of PSS (15:30-17:00)

Moderators: Nariaki Nishino; Sofia Lingegård

4B-1	Understanding product-service systems in a sharing economy context - A literature review	Laurens Somers; Ivo Dewit; Chris Baelus
4B-2	Enabling circular strategies with different types of product/service-systems	Marina Pieroni; Fenna Blomsma; Daniela C Pigozzo; Tim McAlloone
4B-3	An exploratory expansion of the concept of product-service systems beyond products and services	Wisdom Kanda; Johannes Matschewsky
4B-4	Barriers to bicycle sharing systems implementation: analysis of two unsuccessful PSS	Suzana Regina Moro; Aline C Imhof; Diego C Fettermann; Paulo A Cauchick-Miguel

May 31 (Day 3)**5A. Smart PSS and digitalization 3 (09:00-10:30)**

Moderators: Xavier Boucher; Shinichi Fukushige

5A-1	Digital competence of stakeholders in Product-Service Systems (PSS): Conceptualization and empirical exploration	Thomas Süße; Uta Wilkens; Saskia Hohagen; Florian Artinger
5A-2	Knowledge Management in Product-Service Systems - A Product Lifecycle Perspective	Yan Xin; Ville Ojanen; Janne Huiskonen
5A-3	Service Chain Logistics Management for Increasing Equipment Uptime	John Sakwe Bake; Marcus Pereira Pessoa; Juan Manuel Jauregui Becker
5A-4	The role of digital technologies to overcome Circular Economy challenges in PSS Business Models: an exploratory case study	Gianmarco Bressanelli; Federico Adrodegari; Marco Perona; Nicola Saccani

5B. Circular production system (09:00-10:30)

Moderators: Daniela Pigozzo; Tatsunori Hara

5B-1	Impacts of Product-Service Systems on Sustainability - A structured Literature Review	Lucas Hüer; Simon Hagen; Oliver Thomas; Hans-Jürgen Pfisterer
5B-2	Methodological approach for a process-orientated Lean Service implementation	Uwe Dombrowski; Constantin Malorny
5B-3	Sustainable Evaluation of Production Programs Using a Fuzzy Inference Model - A Concept	Maximilian Zarte; Agnes Pechmann; Isabel L Nunes
5B-4	Is the pace of technology development a threat or opportunity for sustainability? The case of remanufactured industrial robots	Lisa Melander; Sofia Lingegård
5B-5	Opportunities and incentives for Remanufacturing in the Basque Country	Jose Alberto Eguren; Daniel Justel; Ion Iriarte; Aritz Esnaola

6A. Maintenance in PSS (13:00-14:30)

Moderators: John Lindström; Mattias Lindahl

6A-1	Maintenance scenario evaluation for point-of-sale terminals based on lifecycle simulation and risk assessment	Shinichi Fukushige; Yu Murai; Hideki Kobayashi
6A-2	Semantic Quality Assurance of Heterogeneous Unstructured Repair Reports	Michael Abramovici; Philip Gebus; Jens C Göbel; Philipp Savarino
6A-3	The Digital Shadow of Services: A Reference Model for Comprehensive Data Collection in MRO Services of Machine Manufacturers	Günther Schuh; Philipp Jussen; Tobias Harland
6A-4	Research on the spare parts inventory control for agriculture inter-district field operation	Yue Tang; Yaoguang Hu; Yu Liu; Jingqian Wen

6B. Business model for PSS (13:00-14:30)

Moderators: Sophie Peillon; Christian Kowalkowski

6B-1	Product-Service Systems (PSS) and Public Policies: Lessons from the Literature	Diego Honorato Clemente; Lorena G Abadia; Graziela A Galvão; Marly M Carvalho
6B-2	Towards an integration of lifecycle thinking into PSS business models	Martha Orellano; Christine Lambey-Checchin; Khaled Medini; Gilles Neubert
6B-3	Realizing availability-oriented business models in the capital goods industry	Daniel Olivotti; Sonja Dreyer; Patrick Kölsch; Christoph F Herder; Michael H Breitner; Jan C Aurich
6B-4	Game Theory Approach to Product Service Systems	Nariaki Nishino; Benny Tjahjono
6B-5	Towards utilizing Customer Data for Business Model Innovation: The Case of a German Manufacturer	Alexander Michalik; Frederik Möller; Michael Henke; Boris Otto