

Conference Agenda

SUN 13 Sept	MON 14 Sept	TUE 15 Sept	WED 16 Sept
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Agenda Overview

Date: Sunday, 13/Sept/2026

9:00am - 3:00pm	Doctoral workshop
4:00pm - 6:30pm	WG5.7 Meeting
6:30pm	Welcome reception

Date: Monday, 14/Sept/2026

8:00am -	Registration						
8:30am							
8:30am -	Opening ceremony						
9:10am	Location: Aula Magna						
9:10am -	Keynote speech 1.1						
9:50am	Location: Aula Magna						
9:50am -	Coffee break 1.1						
10:20am -							
11:40am	Smart and Sustainable Supply Chain: Technology, Operations, Logistics, and Governance Implications Location: Room Fornasa Effects of Soybean Supply Chain Prices on Transport Demand in Brazil João Gilberto Mendes dos Reis, Sivanilza Teixeira Machado, William Machado Emiliano, Vivian Silveira dos Santos Bardini Exploring Freight Production and Freight Attraction for Different Brazilian Supply Chains João Gilberto Mendes dos Reis, João Guilherme da Costa Braga França, Leise Kelli de Oliveira Game Theoretic Analysis of the Food Loss Generation Mechanism in the U.S. Lettuce Supply Chain Harufumi Yamaguchi, Shota Suginouchi, Hajime Mizuyama Participatory Backcasting for Envisioning Sustainable Food Supply Chains: A Case Study of a Japanese Food Company Mizuho Sato, Yusuke Kishita, Hajime Mizuyama, Toshiharu Tanaka	Digital Transformation Approaches in Production and Management Location: Room 2 Organizational Sentiment Intelligence (OSI) as an Early Warning System: A Case Study of LG Electronics Employee Feedback Selver Softic, Xiaoshan Liu, Safet Softic, Vlad Bocanet, Harris Gerzic, Slavko Rakic, Ugljesa Marjanovic, David Romero A Conceptual Framework for Integrating Digital Voice of the Customer into FMEA and 8D through Industrial Data Spaces Elena Andrushchenko, Dogan Efe, Roland Jochem AI-Driven Forecasting of Volatile Ice-Food Demand for Optimized Cold Chain Management Syrine Guinoubi, Ayoub Chakroun, Yasmina Hani, Abderrahmane El Mhamedi Jurisdictional Contestation in Emergent Digital Manufacturing Domains: Top-Down DevOps Vertical Ownership as a Double Loop Learning Mechanism Matthew Anderson, Shaun West, Tobias Larsson	Artificial Intelligence Adoption in Higher Education: Challenges, Opportunities, and Responsible Integration Location: Room 4 When Avatars Debate: Design and Evaluation of an LLM-Based Debate Platform for Educational Applications Antonio Cvitković, Luka Batistić, Antonio Maffei, Sandi Ljubic Designing a Universal Student Passport for Responsible AI-Driven Personalised Learning in Engineering Higher Education Joseph Zammit, Andrea Bondin, Emmanuel Francalanza, Antonio Maffei, Roberto Sala, Fabiana Pirola, Giuditta Pezzotta, Sandi Ljubić, Luka Batistic, Primož Podržaj, Igor Reznichenko, Paolo. C Priarone, Dario Antonelli Game-Based Learning for Sustainability Education in Engineering: A Systematic Literature Review Jannicke Baalsrud-Hauge, Paola Cocca Mapping the Policy Landscape of AI in Higher Education: A Multi-Level Analysis Across European Institutions Joseph Zammit, Victoria Grech, Emmanuel Francalanza, Antonio Maffei, Roberto Sala, Fabiana Pirola, Giuditta Pezzotta, Sandi Ljubić, Luka Batistic, Primož Podržaj, Igor Reznichenko,	Human-Centric and Data-Driven AI: Redefining Operations and Supply Chains Location: Room 6 Risk-Aware Order Acceptance and Scheduling with Supply Reliability Considerations Mattia Gianassi, Leonardo Leoni, Alessandra Cantini, Mario Tucci, Filippo De Carlo A trade-off analysis between uncertainty representation and usability in fuzzy MCDM: evaluating performance variations across IVIF-AHP, IVPF-AHP and PR-FAHP Flavia De Cassan, Alessandra Cantini, Leonardo Leoni, Filippo De Carlo, Mario Tucci A Taxonomy of Human-AI Interaction Patterns in Agent-Based Operations Management Vito Introna, Annalisa Santolamazza AMR-based warehousing systems: Analysis of energy, environmental and economic performance of Robotic Compact Storage Systems Sara Perotti, Luca Cannava, Emma Conti	Industrialisation of Digital Twins: Adoption, Governance, and Value Realisation Location: Room 7 Industrialising Digital Twins: Governance of Data, Metadata, and AI in Production System Ecosystems Shaun West, Oliver Stoll, Kyle Alves, Matthew Anderson, Eugen Rodel, Simon Züst Data Governance and Management Principles for Data Space–Enabled Digital Twin Ecosystems Ana Carolina Chaves, Ana Nunes Alonso, António Lucas Soares Toward Quantifying Data Usage Of Machine Data Alexander Albers, Christian Kober, Torbjørn Netland Operational objectives and value creation mechanisms of Digital Twins in manufacturing Douglas Mendonça dos Santos, Néstor Fabián Ayala	Interactive and Explainable AI for Production Planning and Scheduling Location: Room 8 Multi-Objective Deep Reinforcement Learning for Automated Storage and Retrieval Systems Control Andrea Ferrari, Giulio Mangano Heterogeneous Graph Transformer-based Deep Reinforcement Learning for Integrated Steel Stockyard Scheduling in a Shipyard Won Seok Choi, Young In Cho, Hee Chang Yoon, Seong You Bae, Jong Hoon Woo A Systematic Study of Search Algorithms for Planar Storage Retrieval under Operational Constraints Yeongchan Han, Seung Woo Han, Jong Hun Woo Multi-Agent Reinforcement Learning Algorithm for Routing Optimization in Modular Conveyor Systems Daniele Andolfi, Giovanni Antonio Haakon Callegaro, Andrea Matta, Elena Tappia	Advancing Practices for Eco-efficient and Circular Industrial Systems Location: Room Castoldi Information Requirements for Eco-Efficient Manufacturing Mélanie Despeisse, Qi Fang, Carlos Alberto Barrera Diaz, Kanika Gandhi, Lena Moestam From End-of-Life to Decision Pathways: Deep Reinforcement Learning for Circular PV Management Bahador Bahramimianrood, Shiva Abdoli Hybrid Simulation for Evaluating the Environmental Loads of an Upcycle Mobility Service Masahiro Yamamoto, Soshi Takayanagi, Shinichi Fukushige Efficient Prototyping in Sheet Metal Forming Through Simulation and Polymer Additive Tooling Yannick Taschbach, Alexander Keuper, Günther Schuh

			Paolo, C Priarone, Dario Antonelli, Łukasz Paško, Marcin Olech				
11:40am - 11:50am	Short break						
11:50am - 1:10pm	Smart and Sustainable Supply Chain: Technology, Logistics, and Governance Implications Location: Room Fornasa Urban logistics in the 15-Minute City: A Systematic Review and Research Agenda <u>Alexandra Lagorio</u>, Claudia Piffari, Mario Paris, Chiara Cimini Automatic Simulation Model Generation in the Context of Finished Vehicle Logistics on Automotive Terminals Marit Hoff-Hoffmeyer-Zlotnik, Susanne Schukraft, Michael Görges, <u>Ricardo Caballero</u>, Michael Freitag Examining the role of Industry 5.0 in enhancing competitiveness: A comparative analysis of transport systems. <u>Atle M. Christiansen</u>, Kenn Steger-Jensen, Kenneth Vidskjold Adoption of Battery Electric Trucks: a Review on transport companies' perspectives Matteo Capolli, <u>Alessandro Creazza</u>, Pietro Evangelista, Claudia Colicchia	Digital Transformation Approaches in Production and Management Location: Room 2 A data readiness assessment for Smart Manufacturing: A Single-Case Study in the Cosmetics Industry Paolla Polla Pontes do Espírito Santo, <u>Néstor Fabián Ayala</u> Modernizing MES: A Pilot Study on e-Quality Integration for Enhanced Operational Performance Firdevs Senem Degirmenci, <u>Paolo Gaiardelli</u>, Daryl Powell From Data Quality Deficiencies to Production Inefficiency: Data Quality as a Bottleneck for AI-Based PPC <u>Johannes Jordan</u>, Oliver Antons, Julia Arlinghaus Minding the Gap: Limitations of Existing Automation Potential Analysis Frameworks <u>Chibuikem C Nwagwu</u>, Christina M Micheltree, El Houssein C Harik	Artificial Intelligence Adoption in Higher Education: Challenges, Opportunities, and Responsible Integration Location: Room 4 A Serious Game for AI Integration in Production Systems <u>Davide Matteri</u>, Donatella Corti, Andrea Bettoni AI-Enhanced Serious Games in Production Management: A Systematic Literature Review Dario Lombardi, Luigi Traetta, Pedro Ferreira, <u>Antonio Maffei</u> Where Can Generative AI Help Educators? A Structured Analysis of AI Support in Course Design <u>Antonio Maffei</u>, David Romero, Fan Mo, Bo Yang, Andrea de Giorgio Integrating Sustainability into Assembly Technology Education: A Course Redesign Approach Based on Constructive Alignment Andrea de Giorgio, Fan Mo, Bo Yang, <u>Antonio Maffei</u>	Human-Centric and Data-Driven AI: Redefining Operations and Supply Chains Location: Room 6 Agentic AI as a cognitive support tool for Operator 5.0 <u>Asa Fast Berglund</u> A Readiness Assessment Model for Human-Robot Collaboration in the context of Industry 5.0 <u>Mattia Braggio</u>, Simone Arena, Federico Briatore, Pier Francesco Orrù, Marta Pinzone Human-Centered evolution of recommender systems: from collaborative filtering to responsible AI <u>Djonathan Quadras</u>, Nicolas Luiz Schweitzer de Souza, Romeo Bandinelli, Enzo Morosini Frazzon Inclusion of workers with functional diversity in Human-Robot Collaboration: a systematic mapping review <u>Francesco Mancusi</u>, Claudia Piffari, Alexandra Lagorio, Chiara Cimini, Fabio Fruggiero	Industrialisation of Digital Twins: Adoption, Governance, and Value Realisation Location: Room 7 Evaluating the Robustness of Production Planning and Control Procedures <u>Christopher Mundt</u>, Hermann Lödding A Cost-Benefit Framework for Assessing Digital Twin Value in Manufacturing: Development and Industrial Evaluation <u>Christian Kober</u> AI-Augmented Digital Twins in Large Industrial Companies: From Use Cases to Industrialisation <u>Adrian Sanchez de Ocaña</u>, Jessica Bruch What is Industrial Metaverse? A Systematic Literature Review-Based Synthesis of Existing Definitions <u>Mohsin Raza</u>, Ole Madsen, Casper Schou, David Acev, Ulrich Berger	Interactive and Explainable AI for Production Planning and Scheduling Location: Room 8 An Integrated AI-driven Production Planning Framework for Resource-Constrained Spatio-Temporal Scheduling in Shipyard Block Assembly <u>Jiwon Baek</u>, Youngin Cho, Heechang Yoon, Wonseok Choi, Yejin Yoo, Saenal Sung, Dongha Lee, Jong Hun Woo Job Shop Scheduling Revisited under RL-Guided Constraint Programming <u>Andreas Ktenidis</u>, Angelos Ioannis Lagos, Ioannis Mourtos, Alkistis Sytilidou, Georgios Zois Orbital Vehicle Routing Problem for LEO Constellation Refueling <u>Joonhwa Jeong</u>, Seokcheon Lee, Ilkyeong Moon Multi-Agent Optimal Communication Decision Making Leveraging Finite Markov Decision Process <u>ATIF ur Rehman</u>, Andrea Matta, Gaetano Cascini, Monica Rossi	Advancing Practices for Eco-efficient and Circular Industrial Systems Location: Room Castoldi Decision-Support Approaches for Industrial Symbiosis: A Systematic Literature Review <u>Alessia Boscarato</u>, Federica Acerbi, Sergio Terzi Understanding Industrial Symbiosis through Simulation: A Review of Modelling Approaches and Future Directions <u>Claudia Piffari</u>, Beatrice Colombo, Alexandra Lagorio, Paolo Gaiardelli Smart Circular Economy Implementation in Manufacturing: Identifying Barriers and Enablers <u>Nithin Nagendra</u>, Koteswar Chirumalla, Auday Al-Dulaimy, Anna Öhrwall Rönnbäck Advancing Circular Strategies for Rare Earth Elements: a Bibliometric Analysis <u>Federica Costa</u>, Alessia Napoleone, Mélanie Despeisse
1:10pm - 2:30pm	Lunch						
2:30pm - 3:10pm	Keynote speech 1.2 Location: Aula Magna						
3:10pm - 4:30pm	Enhancing sustainable resilience in food manufacturing value chains through data-driven strategies, systems thinking, and transition approaches Location: Room Fornasa Navigating Complexity in the Circular Economy: A Systems Perspective on Scotch Whisky Isabel Dipirro, Agnessa Spanellis,	Digital Transformation Approaches in Production and Management Location: Room 2 Metaverse-enabled digital twin framework for predictive maintenance <u>Vlad Bocanet</u>, Katarina Kostelic, Nicolae A. Panc, Harris Gerzic, Mircea H. Muntean, Cristina Fleseriu In-Situ 3D Monitoring of	ESG Serious Game Location: Room 4	Human-Centric and Data-Driven AI: Redefining Operations and Supply Chains Location: Room 6 From Shewhart's Control Charts to AI-Enhanced Statistical Process Control in Manufacturing <u>Jorge Santiago Rodríguez Peñalosa</u>, Elisabeth Viles Voice-to-Text for Quality Management:	Industrialisation of Digital Twins: Adoption, Governance, and Value Realisation Location: Room 7 Immersive Digital Twin for Facility Layout Planning in the Context of Production and Intralogistics Systems <u>Edoardo Palmitezza</u>, Ayoub Chihi, Amel Jaoua, Adalberto Polenghi, Elisa Negri	Designing, Engineering, and Managing Truly Human-Centred Industrial Systems for the Operator 4.0/5.0 Location: Room 8 Assessing Mental Workload in Manufacturing: A Comparative Study Between RSME and NASA-TLX in a VR Assembly Task <u>Emmie Fogelberg</u>, Patrick Oden, Peter Thorvald	Advancing Practices for Eco-efficient and Circular Industrial Systems Location: Room Castoldi Assumptions underlying remanufacturing readiness models: Implications for Manufacturing SMEs in High-Mix and Low-Volume Environments <u>Malin Löfving</u>

<u>Melissa Marques-McEwan</u>	FDM Processes using Layer-Wise Metrology <u>Mircea H Muntean</u>, Viad I Bocanet, Ioan Turcin, Domnita Fratila		Improving Nonconformity Reporting and Traceability Through Speech-Enabled Data Capture <u>Nicolò Saporiti</u>, Stefano Marazzini, Simone Arena, Violetta Giada Cannas, Rossella Pozzi, Tommaso Rossi	A Study on Digital Twin Fidelity for Shop Floor Operational Optimization <u>Hayong Lee</u>, Changha Lee, Hyungchan Lim, Donggeon Lee, Sangdo Noh, Seki Park, Sanghwa Lee, Yunyoung Kim, Eunmi Kim, Hyejin Jang, Kyunguk Choi, Keunho Jang	Assessing use of work instructions through eye-tracking <u>Erik Billing</u>, Rebecka Herin, Patrick Oden, Emmie Fogelberg, Atieh Hanna, Beatrice Alenijung, Maurice Lamb	Implementing a Value-Retention Framework for End-of-Life Product Management: From Theory to Practice <u>Pritty Mathew</u>, Kwaku Adu-Amankwa, Cameron Swanson, Graeme Bisland, Andreas Reimer, Andrew Wodehouse
Reconfiguring power in food supply chains: governance mechanisms and food waste across stages of the relationship <u>Claudia Colicchia</u>, Attilia Imbriani, Gerardo Rosciano, Alessandro Creazza	Integrated Machine-Robot Scheduling in a Job Shop: An ILS Algorithm <u>Bilgenur Erdogan</u>, Q. Vinh Dang, Mehrdad Mohammadi, Ivo Adan		Mapping the Intellectual Structure of Knowledge Management in Servitization: A Bibliometric Analysis <u>Giacomo Russo</u>, Leonardo Leoni, Mario Rapaccini	Modelling and simulation of a digital twin for a hybrid passenger vessel with energy recovery <u>Alessandra Valeria Castruccio</u>, <u>Castracani</u>, Ludovica Maria Oliveri, Giovanni Maria Grasso	Human-Centric Fatigue Prediction System for Industry 5.0 With Wearable IoT Sensors <u>Qingwei Cai</u>, Francesco Picariello, Enrico Picariello, Francesco Pilati	Enabling Reuse and Lifetime Extension of Production Equipment: An Exploratory Study of Strategies, Routines and Organizational Conditions <u>Carin Rösiö</u>, Filip Skärin, Martin Birtic
Nutrient Value Loss Framework for Supply Chain Management <u>Silvia Cardini</u>, Anna Savio, Beatrice Marchi, Simone Zaroni, Lucio Enrico Zavanella	Low-Sensor and Transferable Predictive Maintenance in Heterogeneous Manufacturing Systems: A Systematic Literature Review <u>Steve Morel</u>, <u>Kountchou Ghomsi</u>, Claus-Philipp Langhorst, Shun Yang, Sebastian Thiede		Challenges in Implementing Human-Centered AI for Time Data Management in Industry <u>Sandra Mattsson</u>, Peter Almström, Yongkuk Jeong, Bernt Spielberger	Decomposed Q-Learning for Fixture Selection in Multi-Resource-Constrained Flexible Job Shop Scheduling <u>Yulu Zhou</u>, Andrea Matta, Shichang Du	Fatigue Constrained Task Allocation and Scheduling in Human Robot Collaboration Yi-Chieh Chiu, <u>Kai-Wen Tien</u>	Toward Integrated Remanufacturing Systems: Multi-Area Review and Research Directions <u>Alessia Napoleone</u>, Carin Rösiö, Daryl Powell
From Desert to Field: Environmental Corporate Social Responsibility as a Driver of Sustainable Technological Innovation in the UAE Agriculture Sector <u>Nilakshi Galahitiyawe</u>, Mohamad Al Atta, Muhammad Shujaat Mubarik						

Date: Tuesday, 15/Sept/2026

8:00am - 8:30am	Registration							
8:30am - 9:10am	Keynote speech 2.1 Location: Aula Magna							
9:10am - 10:30am	Enhancing Value Chain Resilience through Digital Technologies Location: Room Fornasa Operational Resilience Assessment for Successful Production Ramp-Ups <u>Julian Stang</u>, Simon Dessel, Jessica Niebler, Eleonora Terramagra, Robert Tomkowski, Christina Reuter Advancing the resilience assessment of supply chains with a capability-centric perspective <u>Tobias Franz</u>, Ralph Riedel, Matthias G. Wichmann A Model for Measuring Resilience of Manufacturing Companies <u>Nilooofar Katiraei</u>, Federico Adrodegari, Luca Lussignoli, Tanel Aruväll, Mario Rapaccini, Maria Spadafora, Patrick Dallasega A DEMATEL-Based Analysis of Inter-firm Resilience Capabilities along the Supply Chain <u>Franco Chiriaco</u>, Margherita Pero, Francesca Bianchi	Human-Centric Production and Logistics Systems in the Industry 5.0 Era: Socio-Technical Design and Intelligent Operations Location: Room 2 Human Factors in Dynamic Manufacturing Systems Nicollas Luiz Schweitzer de Souza, Julia Cristina Bremen, <u>Iracyanne Retto Uhlmann</u>, Ricardo Caballero Gonzalez, Enzo Morosini Frazzon, Carlos Eduardo Pereira, Michael Freitag Current Practice and Future Vision of Work System Analysis in Manufacturing: An Expert Study <u>Roland Hall</u>, Matthias Stöhr, Simon Schumacher, Thomas Bauernhansl Designing inclusive workplaces: the HRC-ALWIRBP model <u>Matteo Cais</u>, Antonella Meneghetti Mapping the relationship among picking systems, human factors, and performance in a literature-based framework <u>Vittoria Tudisco</u>, Enory Pascolini, Elena Tappia, Sara Perotti	AI + Supply Chain - Part 1 Location: Room 4	Regular Location: Room 6 Managing openness in collaborative innovation projects of manufacturing companies <u>Djerdj Horvat</u>, Torben Schubert A Current Analysis of Digital Transformation Frameworks for Value Creation in Manufacturing SMEs <u>Diego Mallada Conte</u>, Elisabeth Viles, Josune Hernantes Uncertainty-Dependency Interactions in Supply Chains: A Flow-Based Perspective on Planning, Control, and Resilience <u>Joakim Wikner</u>, Mohamed M. Naim Large Language Models in Supply Chain Management: A SCOR-Based Assessment of Process Positioning and Implementation Stages <u>Giovanni Zenezini</u>, Martina Gagliardi, Anna Corinna Cagliano	Industrial Multi-Modal AI for Data-Driven operational Intelligence Location: Room 7 On Capturing Prior Knowledge in Biomanufacturing using Ontologies and Knowledge Graphs <u>Ana Nikolov</u>, Milos Drobnjakovic, Boonserm Boonserm Kulvatunyou, Vijay Srinivasan Neuro-Symbolic Sequence Generation for Automated Process Planning in SMEs <u>Pascal Krenz</u>, Julia Christina Markert, Lisa Stoltenberg Towards Automated Time Studies in Manufacturing: Benchmarking Pose Estimation Frameworks with LLM-Augmented Semantic Analysis <u>Yongkuk Jeong</u>, Magnus Wiktorsson From Data Scarcity to Reliable Predictions: The Role of AI-Driven Methods in New Product Demand Forecasting <u>Joelmir Luz de Moura Junior</u>, Enzo Morosini Frazzon	The Digital Product Passport: Filling the gap for enhancing Transparency and Sustainability Across the Product Lifecycle Location: Room 8 A Multi-Layered and Conceptual Framework for the Digital Product Service System Passport <u>Luca Carminati</u>, Veronica Arioli, Roberto Sala, Fabiana Pirola, Giuditta Pezzotta DT-Based Simulation Framework based on Digital Product Service System Passport <u>Luigi Manca</u>, Tommaso G. Cesati, Giorgio Battiato, Marta Calderaro, Mattia G. Marzano, Angelo Marguglio, Luca Carminati, Veronica Arioli, Fabiana Pirola A Model-Based Testing Framework for Digital Battery Passport Lifecycle Systems <u>Elena Andrushchenko</u>, Dogan Efe, Roland Jochem Access Rights Management and Digital Identity for Digital Product Passports <u>Dogan Efe</u>, Elena Andrushchenko, Roland Jochem	Advancing Practices for Eco-efficient and Circular Industrial Systems Location: Room Castoldi Optimizing First-Mile Textile Collection in Urban Circular Fashion Supply Chains: A Net-Benefit Bin Location Model Francesca Fumero, <u>Margherita Pero</u>, Nathaly Pino Velasquez A research agenda about circular textile innovation Federica Acerbi, <u>Beatrice Colombo</u>, Virginia Fani Unraveling the systemic effects of Circular Economy strategies in Fast Fashion: insights through a Causal-Loop Diagram approach Valerio Elia, Maria Grazia Gnoni, Maria Elena Latino, <u>Fabiana Tognese</u> Circular economy adoption in the textile industry: an empirical appraisal of strategic and operational practices Beatrice Colombo, Gianmarco Bressanelli, Albachiara Boffelli, Sara Vannelli, Filippo Visintin, <u>Nicola Saccani</u>	
10:30am - 11:00am	Coffee break 2.1							
11:00am - 12:20pm	APMS Talks Location: Aula Magna	Enhancing Value Chain Resilience through Digital Technologies Location: Room Fornasa Resilient AI-Enabled Document Flow for Cross-Border Logistics and Customs Compliance	Human-Centric Production and Logistics Systems in the Industry 5.0 Era: Socio-Technical Design and Intelligent Operations Location: Room 2 Localizing Hallucinations in LLM-Based	AI + Supply Chain - Part 2 Location: Room 4	Regular Location: Room 6 From Disruption to Decision: Toward Resilient Integrated Process Planning and Scheduling <u>Filip Dzigurski</u>, Casper Schou, Ole Madsen	Industrial Multi-Modal AI for Data-Driven operational Intelligence Location: Room 7 Anomaly Detection in Industrial Assets through Unsupervised Multi-	Interactive and Explainable AI for Production Planning and Scheduling Location: Room 8 LLM-assisted Rich Preference Elicitation for Multi-Objective Parallel Machine Scheduling <u>Jimin Park</u>, Hyun-Jung Kim	Advancing Practices for Eco-efficient and Circular Industrial Systems Location: Room Castoldi Circular Economy Maturity Model for Manufacturing Companies

		<u>Jan Frick</u>, Kenn Steger-Jensen, Hans-Henrik Hvolby AI-Enabled Supply Chain Resilience Under Geopolitical Chokepoint Disruption: Sensitivity Analysis of a Strait of Hormuz Shock Kenn Steger-Jensen, Jan Frick, <u>Synnøve Sunne Hasslian</u> Towards Manufacturing-as-a-Service Supply Chain Orchestration: A Decision-Making Scope-Aware Framework. <u>Mohamed Osman</u>, Fernanda Medeiros Assef, Farah Abdoune, Rasmus Andersen, Ann-Louise Andersen, Thorsten Blecker Reconfigurable Manufacturing Systems from a Resilience Perspective: A Literature Study <u>Jannik Fibiger</u>, Ann-Louise Andersen, Casper Schou, Kjeld Nielsen, Rasmus Andersen, Thomas Ditlev Brunø	Robot Action Traces <u>Anna Geliev</u>, Jonas S.I. Rieder, Doris Aschenbrenner, Thomas Gries From green warehouses to sustainable logistics ecosystems: exploring energy sharing approaches and renewable energy community opportunities Sara Perotti, <u>Luca Cannava</u>, Marianna Bodria, Elena Indio Mapping the Evolution of Green Warehousing Research: A Bibliometric Perspective <u>Eleonora Bottani</u>, Eric Grosse		AI-Assisted Equipment Selection and Layout Placement Planning with Self-Correction LP Formulation Framework <u>Kazui Uehara</u>, Tatsushi Nishi, Tomofumi Fujiwara Tree of Thoughts-Based AI Agent for Diverse Design Plan Generation of Manufacturing Systems <u>Zelong Song</u>, Jin Chen, Junxiang Jiang, Qiu hao Xu, Weiwei Chen, Xiaochen Zheng Analysing Sequencing in make-to-order Companies <u>Julian Petersen</u>, Phillip Vogel, Christopher Mundt, Lødding Hermann	Ensemble Model Natalia Trapani, <u>Leonardo Longo</u>, Gabriele Manno, Giuseppe Mancini, Antonella Luciano Discrete Reinforcement Learning over Multi-Solution Inverse Kinematics for Joint Trajectory Optimization of 6-DOF Industrial Robots <u>Jong U Baek</u>, Cho A Kim, Su Han Lee, Ju Yeon Lee Digital Twin Simulation and Deep Reinforcement Learning-Based Product Input Sequencing Optimization in a Display FAB Line <u>Changha Lee</u>, Hyungchan Lim, Hayong Lee, Donggeon Lee, Sang Do Noh, Seki Park, Sanghwa Lee, Yunyoung Kim, Eunmi Kim, HyeJin Jang, Kyunguk Choi, Keunho Jang Multimodal Detection of Steelmaking-origin Defects in Continuous Casting <u>Chiseong Kim</u>, Deageun Hong, Jaebong Cho, Jihoon Nam, Inbeom Park, Sungmo Seo, Hyunbo Cho	Large Language Model-Driven Rescheduling for Semiconductor Manufacturing Equipment Contingency Events Shady Salama, Karl Hein, <u>Marvin Carl May</u> Toward Generalizable LLM-based Natural Language Optimization for Manufacturing Scheduling and Logistics <u>Heechang Yoon</u>, Hyunjin Oh, Joohyun Lee, Sooyeon Hwang, Jonghun Woo Architecting Reliable LLM-Integrated Simulation: From Code Generation to Tool-Augmented Interaction in Production Planning <u>Yongkuk Jeong</u>, Kiyoungh Cho, Jong Hun Woo	Emily Greve Somerset, <u>Emma Bødker Worup</u>, Astrid Heidemann Lassen, Ann-Louise Andersen, Thomas Ditlev Brunøe Building Capacities for Circular and Digital Transformation: a platform for the Skill-Driven Circular Economy-Digital Innovation Hub Adriana Hofmann Trevisan, Federica Acerbi, Alessia Boscarato, Giorgos Demetriou, Giorgio Mossa, Marco Taisch, Sergio Terzi, <u>Claudio Sassanelli</u> Decoupling in Circular Supply Chains: Reframing CODP for Supply-Driven Reverse Flows Anita Romsdal, <u>Heidi Carin Dreyer</u> Exploring the Influence of Circularity Mechanisms on Supply Chain Resilience in Bio-Based Supply Chains <u>Yinef Pardo</u>, <u>Baez</u>, Movin Sequeira, Malin Löfving, Jenny Bäckstrand
12:20pm - 2:00pm	Lunch							
2:00pm - 2:40pm	Keynote speech 2.2 Location: Aula Magna							
2:40pm - 2:50pm	Short break							
2:50pm - 4:20pm	APMS Talks Location: Aula Magna	Sustainable Battery Value Chains: Production, Digitalization and Circular Integration Location: Room Fornasa Obstacles and opportunities for the repair cycle for cells and electronics in EV batteries <u>Martin Kurdve</u>, Emanuel Glans A Dynamic Premium Pricing of	Human-Centric Production and Logistics Systems in the Industry 5.0 Era: Socio-Technical Design and Intelligent Operations Location: Room 2 Socio-Technical Interpretation of Learning Factories for Production and Logistics: A Systematic Literature Review <u>Anna Corinna Cagliano</u>,	ASAP - Part 1 Location: Room 4	Smart and Sustainable Supply Chain: Technology, Operations, Logistics, and Governance Implications Location: Room 6 Demand Forecasting for Intermittent Footwear Sales Using a Calibrated TFT-Hurdle Architecture <u>Eduardo e Oliveira</u>, Teresa Pereira, Marisa Pereira, Mar Vazquez-Noguerol, Jose Comesaña-Benavides	Advancing Human-Centric Digital Lean Manufacturing Systems: Lean 5.0 Pathways Location: Room 7 Studying Digital Kanban environment to support Just-In-Time Supply: Simulation approach Mehmet Demir, <u>Anne Zouggar Amrani</u> Towards Lean 5.0 in luxury	Transforming engineer-to-order projects, supply chains, and systems Location: Room 8 Avoiding Digital Disappointment: A Retrospective Study Applying DSM-NPV to a European Shipyard Innovation Miguel Calvache, Jeroen Pruyn, <u>Alessia Napoleone</u> Digitalization of Yard Planning:	Designing, Engineering, and Managing Truly Human-Centred Industrial Systems for the Operator 4.0/5.0 Location: Room Castoldi Trust Miscalibration in LLM-Based Operator 5.0 Support: A Controlled Evaluation of Knowledge Graphs, Large Language Models, and Documentation

		Critical Minerals in EV Battery Supply Chains Ricky Gao, Shiva Abdoli Battery Swapping Business Models for Heavy-Duty Machines in Road Construction and Quarry Operations Koteshwar Chirumalla, Stavros Vouros, Bobbie Frank Identifying Key Decisions in Battery Lifecycles and the Role of Blockchain Technology Moshkan Ebrahimi, Koteshwar Chirumalla, Anas Fattouh, Moshkan Ebrahimi, Moshkan Ebrahimi, Moshkan Ebrahimi	Simone Preziosa A Review of Digital Twin Enabled Human-Robot Collaboration in Cyber-Physical Production Systems Md Rokibul Islam, Austin Harper, Mojtaba A. Farahani, Thor Wuest Scenario-Based Discrete-Event Simulation Approach to User-Centric Production System Design Akshay Goyal, Anupama Govindaraj Motion Prediction in Human-Centric Workspaces: When Anticipation Helps Samuele Dell'Oca, Michel Rosselli, Andrea Bettoni, Umesh Sehra, Feryal Fulya Horozal, Georgios Karantinakis		Application of Artificial Intelligence in Supply Chain Management: Research Gaps and an Emerging Research Agenda Boonserm Kulvatunyou, Perawit Charoenwut, Yen Mai Integrating Sustainability into Sales and Operations Planning: A Decision-Oriented Framework for Process Industries Ishan Kahandawa, Charuni Wijayasingha, H. Niles Perera Public-Private Partnerships in Healthcare Logistics: A Private Perspective on Advantages, Disadvantages, and Critical Success Factors in Italy Simone Preziosa, Anna Corinna Cagliano, Carlo Rafele, Gabriel Castelblanco	manufacturing: linking Human Factors and operational KPIs Ilaria Bucci, Elena Ermini, Monica Rossi, Virginia Fani, Romeo Bandinelli A Case Study of Digital Kaizen in a Small and Medium Sized Manufacturing Enterprise Eivind Reke, Torbjørn Leirmo, Yashoda Karki, Daryl Powell, Maria Flavia Mogos Utseth How organizational and national cultures influence the adoption of Lean and I4.0 practices: an Italian and Norwegian comparative analysis Matteo Zanchi, Paolo Gaiardelli, Elena Agostinelli, Espan Johannessen, Erik Mäkitavola	How Context, Practices, and Readiness Shape Future Priorities Linda Helen Sperre, Giuseppe Fragapane, Jo Wessel Strandhagen, Jan Ola Strandhagen, Erlend Alfnes, Ayah Mustafa A Planning Framework for ETO Offshore Fabrication Yards Ayah Mustafa, Erlend Alfnes, Fabio Sgarbossa, Jo Wessel Strandhagen Digital Assistance Systems for Just-In-Sequence Packing: Key Enablers for Productive Shipyard Assembly Lennard Thielager, Volodymyr Alekksieiev, Tim Jansen, Christopher Mundt, Hermann Lödding	for Industrial Troubleshooting Fabio Daniele, Elias Montini, Lorenzo Conti, Luca Maria Gambardella, Paolo Pedrazzoli Getting your Hands dirty: A task-centered Approach to deriving Machine Learning Use Cases in Waste Sorting Natalie Basedow, Nicole Rau, Nadine Yilmaz, Doris Aschenbrenner Impact of Customised Assembly Workstations on Productivity, Ergonomics, and Perceived Workload: Accounting for Learning Effects Victor Bittencourt, Sri Kolla, Sebastian Thiede Towards Softbots 5.0: The Emergence of Symbiotic Industrial Digital Assistants Saulo P. Zambiasi, Ricardo J. Rabelo, Bruna L.P. Nobre, Lara P. Zambiasi, Patricia L.B. Pinheiro, David Romero, Julio E. Normey-Rico
4:20pm - 4:40pm	Coffee break 2.2							
4:40pm - 6:00pm	Meet the editors Location: Aula Magna	Sustainable Battery Value Chains: Production, Digitalization and Circular Integration Location: Room Fornasa Forecasting Exogenous Waste Inflow: A Two-Regime Hierarchical Approach for Circular Battery Manufacturing Ibrahim Teymurlu, Quang-Vinh Dang, Mehrdad Mohammadi, Ivo Adan Lithium-ion Batteries' Lifecycle Mapping and their Environmental Assessment: Academic versus Grey Literature Nour El Houda Mezni, Valérie Botta-Genoulaz,	New Forms of Human-Technology Interaction in Production and Logistics Systems for the Operator 4.0/5.0 Location: Room 2 How to co-design usable cognitive assistance systems by human-centred design and sociotechnical system design Koen Nijland, Milan R. Wolffgramm, Aijse W. de Vries, Paul T. Y. Preenen, Sri S. V. K. Kolla, Sebastian Thiede AI Agents evaluation by users' experience incidents, a concept of measurement strategy Wieslaw Urban, Marcin	ASAP - Part 2 Location: Room 4	Smart and Sustainable Supply Chain: Technology, Operations, and Governance Implications Location: Room 6 Alarm-Only Predictive Chattering: Machine Learning with Dynamic Chattering Index Labels in Industrial SCADA Maria Pereira, Eduardo Oliveira, João Fraga, Marisa João Guerra Pereira Ethnographic Analysis for Sustainable Port Management: A Multi-Stakeholder Perspective from European Ports Adriana Saraceni Unified Static and Dynamic Harvester Scheduling with a Trade-off between Coordination Frequency and	Novel Solutions for Lean-Green Production Systems Location: Room 7 Understanding Lean Operations in Highly Uncertain Environments: A Case Study of Fishing Vessel Operations and AI Concept Opportunities Irina-Emily Hansen, Ola Jon Mork, Paul Steffen Kleppe, Lars Andre Giske Sustainable Transition in Luxury Fashion: A Lean Action Learning Theory Alessia Bilancia, Sofia Varrica, Federica Costa, Alberto Portioli	Transforming engineer-to-order projects, supply chains, and systems Location: Room 8 Deconstructing Digital Transformation in Global Construction Firms Kefa Kafuluma, Martin Rudberg, Dan Engström Interfaces and Coordination in Construction Logistics: A Case Study from an Urban Development Project Joel Årlebrandt, Mats Janné, Martin Rudberg Customer Interaction and the CODP – Enabling Integrated Modelling of Sequential and Interdependent	Designing, Engineering, and Managing Truly Human-Centred Industrial Systems for the Operator 4.0/5.0 Location: Room Castoldi Towards a Sustainable and Human-Centric Manufacturing: Delphi Validation of Competitive Priorities in Industry 4.0 Andrea Cristina Elias Ribeiro, Ana Lúcia Figueiredo Facin Contemporary Challenges in Industrial Work: An Empirical Study of Blue-Collar Workers in the Era of Industry 4.0 and Industry 5.0 Susanna Aromaa, Juho Siilmukari, Anna Viljakainen Technostress 4.0 and Industry

7:00pm	Gala dinner	Taha Arbaoui, Giulio Mangano	<u>Czubaszek</u>	Weather Adaptability <u>Yumeto Mino</u>, Shota Suginouchi, Hajime Mizuyama	Operational Excellence and Sustainability: A Review in High-End Manufacturing <u>Gaia Bonomi</u>, Federica Costa, Alberto Portioli Staudacher	Customer Requests <u>Joakim Wikner</u>, Eva Johansson, Fredrik Tiedemann	5.0 Human Centricity: Building a Conceptual Bridge Through a Structured Literature Review <u>Solveig Beyza</u> <u>Narli Evenstad</u>
		Sustainability in Critical Raw Materials for Energy Transition: Identification of Sustainability Indicators and Categories Through a Systematic Literature Review <u>Francisco</u> <u>Encina-Mansilla</u>, Christian Thies	Solving the Collaborative Picker-Robot Routing Problem with Learning Effects <u>Sidi Lamine</u> <u>Sakho</u>, Mohammed- Amine Abdous, Serena Finco, Arnaud Doniec	A Deterministic Approach to Environmentally Sustainable Gate Assignment Using Real Operational Data <u>Chaima Boubaker</u>, Youssef Meliani, Sonia Radjef, Yasmina Hani	Lean-Based Energy Efficiency Improvement Using A3 (PDCA): Insights from an Industrial Case Study Ibrokhimjon Khamidov, <u>Federica Costa</u>, Alberto Portioli Staudacher	A Digital Twin- Oriented Decision Support Framework for Lifecycle-Aware Peak-Shaving in Hybrid ETO Off- shore Vessels Antonio Giallanza, <u>Farand Khani</u>, Rosa Micale	Reviewing Human-Centric Aspects of AI Collaboration in Manufacturing <u>Sandra Jakšić</u>, Anita Clara Notarianni, Omkar Salunkhe, Ana Correia Simões, Anna Syberfeldt, Johan Stahre

Date: Wednesday, 16/Sept/2026

8:00am - 8:30am	Registration						
8:30am - 9:50am	Servitization for Sustainable Manufacturing: Enablers, Constraints, Assessment Tools, and Business Model Configurations for Digitalized Systems Location: Room Fornasa Mapping rebound mechanisms in circular manufacturing: A causal loop diagram approach Mariantonietta Ferrante, <u>Veronica Arioli</u>, Roberto Sala, Claudio Sassanelli How Servitization Enables—and Constrains—Sustainable Value Creation: An Empirical Analysis among Manufacturing Firms <u>Veronica Arioli</u>, Fabiana Pirola, Luca Lussignoli, Federico Adrodegari, Nicola Saccani The IFIP WG5.7 Service Systems Special Interest Group Research Agenda Evolution on Service and Product-Service Systems Design, Engineering and Management <u>Shaun West</u>, David Romero, Paolo Gaiardelli, Veronica Arioli, Claudio Sassanelli, Giuditta Pezzotta The IFIP WG5.7 Service Systems Special Interest Group Renewed Research Framework and Agenda on Product-Service Systems and Digital Servitization <u>Claudio Sassanelli</u>, Veronica Arioli, Shaun West, David Romero, Paolo Gaiardelli, Giuditta Pezzotta	AI, Institutions, and Organizational Transformation in Production Systems: Toward Human-Centric Industry 5.0 Location: Room 2 Industry Voices on AI Operationalization: Uncovering Socio-Technical Barriers and Implications in Manufacturing <u>Lukas Rauh</u>, Daniel Schel, Thomas Bauernhansl Cognitive value creation: Explorative findings on conceptual requirements for a new manufacturing paradigm <u>Jan Philipp Pydde</u>, Simon Schumacher, Lennart Kuhr, Mark Mennega, Christoph Herrmann, Thomas Bauernhansl When Operators Lead the AI Shift: A Qualitative Study of Informal AI Adoption in Norwegian Manufacturing <u>Godfrey Mugurusi</u>, Martina Ortova, Anne Grethe Syversen, Fatjon Thomai Adaptive Integrated AI Framework for Sustainable and Resilient Manufacturing Operations <u>Ebru Turanoglu bekar</u>, Alexander Karlsson, Sunith Bandaru	Human Location: Room 4	Smart and Sustainable Supply Chain: Technology, Operations, Logistics, and Governance Implications Location: Room 6 OD-pair-Decomposition-Based Multi-Colony ACO for Guide-Path Layout and Routing in AGV Systems <u>Shota Suginouchi</u>, Yuito Bandai, Hajime Mizuyama Demand-Driven Stock Keeping Unit to Pod Assignment and Replenishment Policy in Robotic Mobile Fulfillment Systems: An Agent-Based Simulation Approach <u>Shuo-Yan Chou</u>, Salsabila Herwenig, Mileniadewi, Catherine Laura Lee Timony, Ferani Eva Zulvia, Anindhita Dewabharata Rethinking Routing: Integrating Road Quality into Classical Optimization Models Carlota Pinho, Farzam Salimi, António Galvão Ramos, Marisa João Guerra Pereira, <u>Maria Teresa Pereira</u> Optimization model of an innovative automated warehouse featuring climbing collaborative robots <u>Bartolomeo Silvestri</u>, Maria Asuncion del Cacho Estil-Ies, Agostino Marcello Mangini, Luigi Ranieri, Giuseppe Starace	Regular Location: Room 7 Reducing CNC Machine Tool Energy Consumption: Standby Phase Optimization Based on Energy Measurements <u>Guillaume Cauchon</u>, Louis Gosselin Resource Allocation Optimization Using Reinforcement Learning in Manufacturing Systems <u>Mohammed Malaibari</u>, Asmaa Binkhamis, Shiva Abdoli The System Reference Architecture of a Holistic Digital Platform for Energy and Production Management in Manufacturing Maria Flavia Mogos Utseth, Matteo Ranaboldo, Zachari Thiry, <u>Linda Helen Sperre</u> Connecting Energy Management to System Change in Manufacturing: A Literature-Based Escalation Model <u>Alessia Napoleone</u>	Human-centric lifecycle management of products and assets Location: Room 8 The Role of Serious Games for Boundary-Object Negotiation in Innovation Projects <u>Giacomo Barbieri</u>, Maricruz Solera Jimenez, Jan Braaksma Towards an Integrated Production Scheduling and Maintenance Planning using Reinforcement Learning <u>Ricardo Caballero</u>, Eike Broda, Nicollas Luiz Schweitzer de Souza, Enzo Morosini Frazzon, Michael Freitag Decision support systems for sustainable maintenance enabled by I4.0 technologies: a bibliometric analysis Simone Arena, <u>Mattia Braggio</u>, Alexandre Voisin, Chiara Franciosi Mapping Criteria for Designing Machine Learning-Driven Integrated Quality-Maintenance Engineering Frameworks <u>Elisa Gonzalez Santacruz</u>, Mohan Rajashekarappa, David Romero, Zeynab Allahkarami, Jon Bokrantz, Anders Skoogh	Smart Manufacturing for Circularity and Resilience: Models, Methods, and Industrial Evidence Location: Room Castoldi Applying Zero Defect Manufacturing: A Case Study in Deep Drawing Aluminium Production <u>Violetta Giada Cannas</u>, Rossella Pozzi, Riccardo Stuppi, Sara Zenucchi EDCC: Data space for circular construction <u>Frederique Biennier</u>, Didier Balaguer, Pierre Valiorgue, Michel Protsenko, Alain Berry, Claude Sadoun The Illusion of Stabilization: Why Manufacturing Innovation Stalls <u>Astrid Heidemann Lassen</u>, Brian Vejrum Waehrens AI-Supported Transformation of Workshop Outputs for Industrial Data Space Design: A Business and Organizational Perspective <u>Rosalina Ribeiro Silva</u>, Henrique Diogo Silva, António Lucas Soares
9:50am - 10:20am	Coffee break 3.1						
10:20am - 11:40am	Servitization for Sustainable Manufacturing: Enablers, Constraints, Assessment Tools, and Business Model	AI, Institutions, and Organizational Transformation in Production Systems: Toward Human-Centric Industry 5.0 Location: Room 2	Industrial workshop Gregor Location: Room 4	Agentic AI in Operations and Supply Chain Networks: From Tools to Orchestrators Location: Room 6	Jobs, Skills and Workforce Development for Sustainable, Resilient, and Human-Centric Industrial Systems Location: Room 7	Human-centric lifecycle management of products and assets Location: Room 8	Smart Manufacturing for Circularity and Resilience: Models, Methods, and Industrial Evidence Location: Room Castoldi

	Configurations for Digitalized Systems Location: Room Fornasa Decision-making within a Leasing Business Model: Enabling Refurbishment of Products at the End-of-Lease Under Stochastics Condition Sepideh Kordestani, <u>Jenny Backstrand</u>, Vanajah Siva Waste Management in the Cosmetics Industry: A Life Cycle-based Analysis <u>Laila El Warraqi</u>, Roberto Rocca, Luca Fumagalli Designing Sustainable Business Models for Testbeds in Industry 4.0: An Empirical 5G Testbed Study Pedro Gonçalves, <u>Ana Correia Simões</u>, Pedro Senna, Bruno Parreira Integrating Artificial Intelligence and Human Resource Management Practices to support Knowledge Management Processes <u>Mariavittoria Marinucci</u>, Roberto Sala, Fabiana Pirola, Sergio Cavaliere	Shifting skill sets for engineers through increased use of Artificial Intelligence in product development <u>Juliane Balder</u>, Helena Ebel, Marco Buric, Rainer Stark Empowering the Manufacturing Workforce to Integrate AI Coding Assistants <u>Nicolas Leberriuyer</u>, Mats Ahlskog, Jessica Bruch, Erik Backhans Development of the Mine 5.0 model for human-centric, sustainable and resilient surface coal mining operations Vladimir Simeunović, <u>Sonja Dimitrijević</u>, Dragan Stošić, Vidosav Majstorović Beyond Textual Accuracy: Evaluating RAG-based Assistant for Novice Operators in Industrial Robotics <u>Enrico Botticella</u>, Zhengyi Wu, Khurshid Alliev, Giulia Bruno		Toward Self-Organizing Production Logistics: A Multi-Agent Approach <u>Jan-Felix Klein</u>, Yongkuk Jeong, Erik Flores-Garcia, Magnus Wiktorsson Agentic Artificial Intelligence in Supply Chain Management: A Systematic Literature Review <u>Djonathan Quadras</u>, Romeo Bandinelli, Virginia Fani From model assessment to process fit: designing benchmark dimensions for LLMs in business contexts <u>Roberto Pinto</u>, Erlend Alfnes, Romeo Bandinelli, Giovanni Zenezini From AI Agents to Agentic Applications: An Architectural Case Study in Inventory Management <u>Janne Kilpua</u>, Siavash Khajavi, Sampsza Laakso, Kari Tanskanen	Unlocking Hidden Expertise: How AI Transforms Tacit Knowledge into Competitive Advantage <u>Greta Tjaden</u>, Tabea Gutöhrlein, Daniel Höschele Shaping Social Sustainability in Adaptive Manufacturing Systems: a participatory co-design approach for indicators generation <u>Daniela Zarrilli</u>, Monica Rossi Leveraging Human Capital through Operational Excellence in High-End Operations Matteo Ferrazzi, Federica Costa, Alberto Portioli-Staudacher, <u>Gaia Bonomi</u> Empowering the Operator 5.0: LLM-Augmented Task-to-Skills Mapping for Human-Centric Workforce Assignment in SMEs <u>Vincenzo Cutrona</u>, Elias Montini, Christos Emmanouilidis, Andrea Bettoni	FlowExtract: Procedural Knowledge Extraction from Maintenance Flowcharts <u>Guillermo Gil de Avalle</u>, Laura Maruster, Eric Sloat, Christos Emmanouilidis A Material- and Tool State-Aware Dynamic Power Estimation Model for Milling Processes <u>Ga Hyun Lee</u>, Byunghun Song, Hyun Woo Jeon Profiling Difficulty and Interpretability in Industrial AI Fault Diagnostics Mowffq Alsanousi, Po-Chien Huang, <u>Vittaldas Prabhu</u> Human-in-the-Loop Condition-Based Maintenance Framework for Collaborative Robots: Integrating Diagnostic Uncertainty, Human Feedback, and Economic Evaluation Cristina Tonelli, Scarpa Silvia, <u>Adalberto Polenghi</u>, Andrea Mor	Identification and Characterisation of Archetypes for Decentralized Manufacturing Systems <u>Oheneba Aggrey</u>, Poorya Ghafoorpoor Yazdi, Peter Chemweno, Sebastian Thiede Framework for Industrial Resilience - Case from the AgriTech industry <u>Bjerner Henriksen</u>, Maria Kolberg Thomassen, Carl Christian Røstad, Sven Vegard Buer Creating a Future Vision for sustainable Value Creation by manufacturing SMEs in regional Value Networks <u>Stefan Wiesner</u>, Anton Zitnikov, Justin Ender, Matthias Kalverkamp, Tim Ahlheim, Tobias Hoiten, Klaus-Dieter Thoben Risk Analysis for Proactive Resilience Management in Manufacturing Companies <u>Jonas Reinhold</u>, Björn Burzynska, Matthias Schmidt
11:40am - 11:50am	Short break						
11:50am - 1:10pm	Servitization for Sustainable Manufacturing: Enablers, Constraints, Assessment Tools, and Business Model Configurations for Digitalized Systems Location: Room Fornasa Development and Validation of a Roadmapping methodology for servitization <u>Alessandra Chisari</u>, Elena Beducci, Anna De Carolis, Marco Taisch Mapping the Maturity of Servitization and PSS Research: Evidence from an International Scientific Panel Luca Lussignoli, <u>Nicola Saccani</u>, Federico Adrodegari, Tim	AI, Institutions, and Organizational Transformation in Production Systems: Toward Human-Centric Industry 5.0 Location: Room 2 From Regulation to Innovation: The EU Data Act and its Impact on OEM Product Development <u>Greta Tjaden</u>, Sabine Muschik Manufacturing SMEs' ethical maturity for AI adoption <u>Bartłomiej Gladysz</u>, Hassan Juma, Aleksander Buczacki, Aldona Kluczek, Krzysztof Ejsmont, Krzysztof Krystosiak, Aneta Kossobudzka-Górska, Izabela Małeńczyk, Jacek Kozłowski	Emotional monitoring in operations and logistics to enhance workers' well-being Location: Room 4 Exploring the propensity of adoption of physiological emotional monitoring technologies in logistics via TAM <u>Giulio Mangano</u>, Ivonne Angelica Castiblanco Jimenez, Elena Carlotta Olivetti, Sandro Moos, Enrico Vezzetti, Carlo Rafele, Andrea Ferrari, Federica Marcolin Design of a Sensorized Safety Helmet for Stress and Cognitive Workload for Automated	Agentic AI in Operations and Supply Chain Networks: From Tools to Orchestrators Location: Room 6 Implementing a semantic data layer in recycling industry towards agentic AI <u>Asa Fast Berglund</u>, Andreas Christiansen From Thinking to Doing: Moving from AI Use Cases to a Process Wide Adoption Approach in Sourcing <u>Jenny Backstrand</u>, Andréas Malmstedt Governed Decision-Support Artifact for Cross-Functional	Jobs, Skills and Workforce Development for Sustainable, Resilient, and Human-Centric Industrial Systems Location: Room 7 Designing a Learning Activity for FMECA Methodology in a Learning Factory: Comparison between Traditional and Innovative Teaching <u>Nicole Rigamonti</u>, Mattia Galimberti, Roberto Sala Mapping Learning Factories' offerings through the lens of Human-Centric Manufacturing <u>Chiara Cimini</u>, Claudia Piffari,	Regular Location: Room 8 Stereo-Vision-Based Part Classification for Brownfield Assembly Using a Low-Cost Camera <u>Max-Heiner Birk</u>, Andreas Gaus, Christoph Reich, Michael Engler KBES for DfM and DfS of CNC Milled Parts: Requirements Analysis and Technology Blueprint <u>Gerald Kremer</u>, Michael Königs, Rainer Stark YOLO-based Object Detection with Oriented Bounding Boxes for Assembly Line Automation	Regular Location: Room Castoldi Competence-based procedure selection for lead time scheduling addressing remanufacturing-specific challenges: a multi-criteria decision framework <u>Jonah Schulz</u>, Alexander Rokoss, Florian Stamer PDCA-Based Raw Material Management for Sustainable Production Systems <u>Markus Dusdal</u>, Dafina Bulliqi, Christoph Haag A Comprehensive Review of Occupational

	Baines, Donatella Corti, Heiko Gebauer, Christian Kowalkowski, Ugljesa Marjanovic, Jürg Meierhofer, Vinit Parida, Daniela Pigosso, Kentaro Watanabe, Shaun West, Marco guillermo Opazo basaez, Giuditta Pezzotta, Mario Rapacini Artificial Intelligence for after-sales services: a case of luxury fashion industry <u>Nataliia Roskladka</u>, Giovanni Miragliotta	What Remains of XAI in Practice? Comparing Literature Based Methods and Operational Explainability <u>Anna Geliev</u>, Jonas S.I. Rieder, Doris Aschenbrenner, Thomas Gries	Warehouses Operators <u>Elena Carlotta Olivetti</u>, Andrea Ferrari, Giulio Mangano, Giovanni Zenezini, Enrico Vezzetti, Carlo Rafele, Alessia Celeghin, Sandro Moos, Federica Marcolin Mental Workload Evaluation in Real-World Manufacturing Systems in the Industry 5.0 Era <u>Cinzia La Mattina</u>, Francesco Picariello, Francesco Pilati	Manufacturing Decisions <u>Zhichao Yang</u>, Sri Kolla, Sebastian Thiede	Alexandra Lagorio, Roberto Pinto DR-BEST for Circularity: A Service-Oriented Reference Framework to Foster the Twin Transition in European Learning Factories Marta Pinzone, <u>Danusuya Pachimuthu</u>, Federica Acerbi Human-centered digital transformation – an exploratory study <u>Salma Zouaoui</u>, Ioana Filipas, François Marmier, Dominique Renaud	of Tabletop Games Ann-Christine Gerchel, Florian Kerber, <u>Jürgen Lenz</u>, Marcel Halbauer Border Detection and Subspace Optimization for Oversampling Imbalanced Quality Data <u>Mahesh Kumbhar</u>, Sunith Bandaru, Alexander Karlsson	Health and Safety Risk Assessment in Mining: From Classical Methods to AI-Driven Models <u>Wafaa Biadi</u>, Adiba El bouzekri El idrissi, Safaa Assif, Yasmina Hani
1:10pm - 2:10pm	Lunch						
2:10pm - 3:30pm	Smart Manufacturing Ontologies & Data Interoperability Location: Room Fornasa Automatic Generation of AAS via Contrastive Learning Based on an Extended Hierarchical Structure of Semantic Similarity <u>YeRang Jo</u>, JuYeon Lee An Overview of Supply Chain Ontologies Yen Mai, <u>Ralph Riedel</u>, Michael Martin, Sanju Tiwari An Executable UAV Simulation Model Generation Framework based on Ontology and LLMs <u>Shizhen Huang</u>, Qiu hao Xu, Junxiang Jiang, Zelong Song, Xiaochen Zheng An Ontology-Enhanced Multi-Agent Hierarchical Method for Design Requirement Extraction of Complex Products <u>Yifan Tan</u>, Qiu hao Xu, Zelong Song, Junxiang Jiang, Xiaochen Zheng	Cyber-Physical System-Based Approaches to Achieve Sustainability Location: Room 2 Wear- and Time-Aware Pricing with Equity Guardrails for IoT-Tracked Shared Tools <u>Waqas Ahmed</u>, Hans-Ake Sundberg, Robert Shorten Adapting the Five-Dimensional Digital Twin Model for On-Demand and Reconfigurable Continuous Flow Chemistry: An Ontological Approach Inès Dib, <u>Catherine da Cunha</u>, François-Xavier Felpin Deep Learning for Building Maintenance Optimization Hongtao Fang, <u>Shiva Abdoli</u> Simulation of Circular Product Management Based on a Blockchain Platform <u>Sogo Hirata</u>, Yuto Izumida, Shinichi Fukushima	Regular Location: Room 4 Reinforcement Learning-Based Automated Negotiation Model for Sellers Under Varying Inventory Levels <u>Jin Goo Jeong</u>, Ga Hyun Lee, Byunghun Song, Hyun Woo Jeon Supply Chain Resilience Under Competing Geopolitical Frameworks: The Capricorn Bioceanic Corridor and Critical Raw Materials Access for the EU Green Transition <u>Matthias Kalverkamp</u>, Jannicke Baalsrud-Hauge A Nearshoring Decision-Support Framework for supplier-location selection Luisa Montella, Teresa Murino, <u>Andrea Somma</u>	Bridging the Implementation Gap of Management Frameworks: From Theory to Industrial Practice Location: Room 7 Designing a Process-Oriented Performance Measurement System for R&D Activities in Manufacturing SME <u>Guven Gurkan Inan</u>, Derya Akbulut, Melissa Marques-McEwan, Bahtiyar Ocak How Much Context is Enough? Mapping Production Planning Environments for Comparable Case Studies in Tactical Production Planning <u>Anita Romsdal</u>, Mina Rahmani, Jan Ola Strandhagen A Requirements-Based Extension of Earned Value Management for Engineering Project Control Filippo Maria Ottaviani, <u>Giovanni Zenezini</u>, Massimo Rebuglio, Francesco Moroni, Giovanni Romagnoli, Francesco Zammori An exploratory analysis on the use of Earned Value Management in project-based Italian organisations Davide Primo Nicolosi, Filippo	Human-centric lifecycle management of products and assets Location: Room 8 Human-Centric Phased Deployment of Auditable Warranty and After-Sales Workflows: An AHP-Based Portfolio Method for Product and Asset Lifecycle Management Vicente González-Prida, Bernal Picado, Antonio Guillén, <u>Adolfo Crespo Márquez</u> Industrial Metaverse: a Platform for Human Engagement in Production System Design <u>Adalberto Polenghi</u>, Marco Pasquandrea, Mahmoud Samy Rezk Elashry, Edoardo Palmitessa, Tesfalem Mekonen Mengestu, Tidaru Dessie Alamnie, Umair Ahmed, Marco Taisch Developing a data-driven maintenance service: a digital platform enabled Asset Management approach based on TBO optimization <u>Lorenzo Ghedini</u>, Irene Roda, Marco Macchi, Alejandro Martinez, Alessandro Pozzetti How service can improve environmental	Regular Location: Room Castoldi Logistic Operating Curves for Closed Queueing Systems: Enhancing Container Terminal Productivity through Shared Queues <u>Florian Möhle</u>, Carlos Jahn, Hermann Lödding Empty Packaging Pooling in Logistics: A MILP Formulation and Matheuristic for Tariff-Based Transport Planning <u>Kaouter Boulaouinat</u>, Faicel Hnaïen, Evren Sahin, Joan André, Riccardo Petitti Routing-Aware Truck Consolidation through Hybrid Machine Learning and Multi-Criteria Decision-Making <u>Abderrahmane Benadder</u>, Nicola Mezzetti, Daria Battini Stochastic Half-Open Multi-Depot Electric Vehicle Routing Problem with Charging Options: A Two-Stage Optimization–Simulation Approach <u>Hakan Erdes</u>, Saadettin Erhan Kesen	

				Maria Ottaviani, <u>Giovanni Romagnoli</u> , Francesco Zammori, Giovanni Zenezini	impact of heat pump: life cycle assessment as a design decision tool <u>Claire Fabrer</u> , Thècle Alix, Laurent Mora, Nicolas Perry	
3:30pm - 4:30pm	Closing ceremony Location: Aula Magna					