

4th ICPR AEM Poznań 2024

Moving to New Production Research and Management Paradigms
28 June - 3 July 2024

Conference Programme

Friday 28th June 2024

General program

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	28 th June 2024	Room no.
9.00-15:00	Doctoral Workshop	101

Sunday 30th June 2024

General program

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	30 th June 2024	Room no.
13:00-17:00	Board meeting	124
17:30	Dinner	Dynx restaurant



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Conference Programme

Monday 1st July 2024

General program

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Time	1 st July 2024	Room no. link
From 8:30	Registration	hall
9.30-10:00	Official opening	Auditorium https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNIwa.1
10:00-11:30	Keynote speeches	Auditorium https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNIwa.1
11:45-12:30	Coffee break	lower hall
12:30-14:30	Parallel sessions: I.A&I.B&I.C	I.A – room no. 230 I.B – room no. 231 I.C- room no.232 https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNIwa.1
14:30-15:30	Lunch Break	lower hall
15:30-17:10	Parallel sessions: II.A&II.B&II.C	II.A – room no. 230 II.B – room no. 231 II.C- room no.232 https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNIwa.1
18:00-20:00	Regional evening	auditorium

The ICPR-AEM 2024 Keynote speakers

Time	Topic	Speaker
10:00-10:30	New Contributions to Aggregate Production Planning with Outsourcing under Uncertain Seasonal Demand – Supported by Human Factors	Univ. Prof. Dr. Gerhard Weber is a professor at Poznan University of Technology, Poznan, Poland, at the Faculty of Engineering Management.
10:30-11:00	Key Points on Romanian strategy on Artificial Intelligence	Prof. Ph.D. Eng. Daniela Popescu is Vice Rector of the Technical University of Cluj-Napoca, Romania
11:00-11:30	Contemporary challenges and solutions in manufacturing	Univ.Prof. Dr.Ing. Oliver Riedel - studied technical cybernetics at the University of Stuttgart and earned his doctorate at the Faculty of Design and Production Engineering.



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Parallel sessions I

Link: <https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNlwa.1>

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session I.A	„Urban areas logistics and community management” Session chair: Mahai Dragomir		Session I.B	"Maturity and resilience models" Session chair: Tomasz Ewertowski		Session I.C	„Digitalization in manufacturing in logistics (1)” Session chair: Sigal Bergman	
	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title
12:30-12:50	1	Diego Ruiz-Hernández, Jesús María Pinar-Pérez and Amaya Erro-Garcés	Districting and Capacitated Multi-operator Routing Problems in Urban Areas with Replenishment Stops	3	Tamer Abdulghani and Herwig Winkler	Assessing the maturity of digital decarbonization in the manufacturing sector	2	Kevin Thomas, Herwig Winkler and Stefanie Hoffmann	Challenges and Opportunities of virtual Learning Factories in comparison to physical Learning Factories - results of a systematic literature review
12:50-13:10	23 on-line	Aurel Mihail Titu, Dorin Vasile Deac Suteu, Mihai Dragomir and Adrian Bogorin Predescu	Contributions to reducing the carbon footprint in the context of the delivery of public services of local and regional interest through electronic interoperability of service providers	46	Karolina Werner-Lewandowska, Ewa Więcek-Janka and Grzegorz Pawlowski	Determinants of sustainability maturity in family businesses	4	Daniela Popescu, Mihai Dragomir, Stefania Chiribau-Vitlinger and Diana Dragomir	AI alignment regimen for supporting production entrepreneurs
13:10-13:30	25	Aurel Mihail Titu, Constantin Olteanu, Mihai Dragomir and Eliza Ioana Apostol	Current and prospective trends in improving the quality of information processes within a public service organization to citizens	47	Joanna Oleśków-Szłapka	Industry 5.0: How maturity models of digital transformation support sustainable development and personalization in manufacturing.	5	Mihai Dragomir, Daniela Popescu, Mirela Manciu-Simijdean and Diana Dragomir	Mapping the digital transformation challenges for production facility planning
13:30-13:50	44 on-line	Yevhen Revtiuk and Tetyana Ivanova	Implementation of the Community Resilience Approach in the System of Crisis Management at the Local Level in Ukraine, 2022-2024	48	Tomasz Ewertowski, Joanna Sadłowska-Wrzesińska and Elżbieta Racek	A model for developing organizational resilience on the example of an iron foundry	6	Pawel Pawlewski and Patrycja Hoffa-Dąbrowska	Principles of teamwork in digital twin factory projects
13:50-14:10	31 on-line	Debora Murad Saud, Rafael Paim Cunha Santos, Letícia Faria Moura, Alexandre Cauduro and Claudia Araujo	Unveiling organ donation and transplantation landscape in Rio de Janeiro: a process mining approach using data from 2021 to 2023	13 on-line	Rafael Ernesto Kieckbusch, Andrea Cristina dos Santos and Pedro Nicolas Fausto	Enhancing Resilience in 3D Printing Operations: A FRAM-based Analysis of the Maintenance System	8	Patrycja Hoffa-Dąbrowska	Intralogistics in digital world – use of different mode and means of transport in internal transport
14:10-14:30	discussion			discussion			10	Ran Shneor and Sigal Berman	SaaS and cloud-based physical domain applications: Technological dimensions model



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Monday 1st July 2024

Parallel sessions II

Link: <https://zoom.us/j/93041750079?pwd=u6Bl1vJqhhcExxvo7XXJvV1BepNlwa.1>

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Session II.A	„Digitalization in manufacturing in logistics (2)” Session chair Łukasz Hadaś		Session II.B	"Circular Economy (1)" Session chair: : Paulina Golinska - Dawson		Session II.C	„Transportation and logistics services management” Session chair: Veli Matti Virolainen	
	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title
15:30-15:50	26	Bartosz Król and Katarzyna Grzybowska	RPA technology connected with AI chatbots – Identifying key concerns and challenges	7	Vigneshwar Pesaru	An Improved NSGA-II with Local Search for Multi- objective energy-efficient flowshop scheduling problem	15	Miia Pirttilä, Sini-Kaisu Kinnunen and Veli Matti Virolainen	Supply Risk Pricing for Power-to-X Plant Investments
15:50-16:10	32	Sebastian Nadobny	Software change management – systematic literature review	35	Mirea Anca Steliana, Bănaşu Cristian Silviu and Tănase Andreea Gabriela	Natural Resources Management for a Green Economy in Europe	20	Sagar Ghuge, Rohit Kumar and Milind Akarte	Evaluating The Optimal Facility Location For Additive Manufacturing Service Bureau
16:10-16:30	39	Michał Fertsch and Łukasz Hadaś	A method for assessing the implementation of IT systems supporting production planning and control.	22 on-line	Shaymaa Maher Mohamed, Ahmed Mohammed, Maryam Rahman, Irina Harris, Zepeng Wu, Nasiru Zubairu	Catering food waste: A MCDM-based management and controlling methodology	53 on-line	Mariya Khmelyarchuk and Sofiya Zhukovska	BPMN diagrams as an essential tool for enhancing business process management and team collaboration
16:30-16:50	40	Michał Fertsch and Łukasz Hadaś	Prospects for the use of artificial intelligence methods in production planning and control – case-study.	29 on-line	Yixin Li, Ying Liu, Stephen Robson and Michael Ryan	Towards an Energy Consumption Optimisation Framework in Selective Laser Sintering System: Leveraging Deep Learning and FPGA Technologies	17 on-line	Madalina Floriana Faget	Optimizing Inventory Management for Enhanced Operational Efficiency: A Comprehensive Approach
16:50-17:10	41 on-line	Muntaser Hamdouna and Mariya Khmelyarchyk	Digital Transformation in Enterprises: A Systematic Review of Technological Innovations Shaping Tomorrow's Landscape	discussion			62	Monika Siewczyńska, Borys Siewczyński, Agnieszka Grzelczak	Multi-aspect analysis of small modular stores



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Tuesday 2nd July 2024

General program

- All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Hour	2 nd July 2024	Room no. link
From 9:00	Welcome coffee	hall
9.30-10:30	Doctoral workshop poster presentations	lower hall
	Q&A with editors	
10:30-12:30	Parallel sessions: III.A&III.B&III.C	III.A – room no. 230 III.B – room no. 231 III.C- room no.232 https://zoom.us/j/92874970339?pwd=pWxOs8p8k2LqUcbzzZyD6fUt8ibMvU.1
12:30-13:30	Lunch Break	lower hall
13:30-15:00	Parallel sessions: IV.A&IV.B	IV.A – room no. 230 IV.B – room no. 231 https://zoom.us/j/92874970339?pwd=pWxOs8p8k2LqUcbzzZyD6fUt8ibMvU.1
15:15-17:15	Old city walk	lower hall
19:30-23:00	Gala Diner Closing ceremony	hall



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Tuesday 2nd July 2024

Parallel sessions III

Link: <https://zoom.us/j/92874970339?pwd=pWxOs8p8k2LqUcbzzZyD6fUt8ibMvU.1>

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	Special Session III.A	„Remanufacturing, repair, reuse, recycling in designing circular business models” Session Chair: Paulina Golinska-Dawson		Session III.B	„Circular Economy (2)” Session Chair: : Beata Mrugalska		Session III.C	„Manufacturing Challenges” Session Chair Irena Pawtyszyn	
	ID paper	Title	Author/Authors	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title
10:30-10:50	50 on-line	Tomohiko Sakao and Paulina Golinska-Dawson	Product-as-a-service business model for circular economy – scientific state of the art	42 on-line	Marzenna Cichosz, Maria Aluchna, Ewa Sonta-Drażkowska and August M. Knemeyer	Sustainability transformation – mapping sustainability paradoxes in supply chain management	9	Joana Rafaela Almeida, Ana Moura and Ana Raquel Xambre	Data Preprocessing for Real-Time Bottleneck Detection in Manufacturing Operations
10:50-11:10	54 on-line	F José Hidalgo, Andreas Riel and Paulina Golinska-Dawson	The design method, challenges, performance indicators and design guidelines for the design of PaaS offers	43 on-line	Kamil Erkan Kabak and Gözde Aka Bal	A Forecasting Analysis of Real-Time Recyclable Paper Waste Amounts from Multiple Regions Via Supervised Machine Learning Methods	19	Shivani Shivani and Shobha Sharma	Comparative Analysis of OLED Architectures: Insights into Performance and Applications
11:10-11:30	30	Sandra Szewczuk and Paulina Golinska-Dawson	Scientometric and bibliometric analysis in circular economy indicators in the context of PaaS	57	Beata Mrugalska and Piotr Cyplik	Training need analysis of digital and green skills for boosting innovation and sustainability of the logistics sector	28	Marc Buchholzer and Nicolae Bibu	Managing value-added through operational excellence in automotive companies. The Romanian experience
11:30-11:50	18	Kirsten Lange and Robert Refflinghaus	Exploring the number of lifecycles in remanufacturing – Insights from a comprehensive literature review	61	Nina Mroczkowska and Zuzanna Mroczkowska	The Methodology of Building Portfolio Strategies in the Contexts of Product Development and Corporate Social Responsibility	33	Matthias Lück and Bastian Pokorni	Human-Centered AI for Zero Defect Manufacturing
11:50-12:10	55	Paulina Golińska, Jose Hidalgo-Crespo, Karolina Werner-Lewandowska, Wiktoria Kanciak and Alicja Pender	Decision aid for companies' capacity building in remanufacturing of EEE in PaaS	discussion			36	Marcin Butlewski, Krzysztof Zawodny and Marcin Suszyński	Lesson learned-i.e. crisis as an opportunity in the decision-making model for implementing organisational change in manufacturing companies,
12:10-12:30	49	Karolina Werner-Lewandowska, Agnieszka Stachowiak, Łukasz Hadaś and Magdalena Graczyk-Kucharska	The factors in building the circular supply chain through remanufacturing - network thinking approach				27 on-line	Magdalena Morze and Piotr Nowak	Factors determining the cooperation of people and robots in warehouses – case study analysis



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Tuesday 2nd July 2024

Parallel sessions IV

Link: <https://zoom.us/j/92874970339?pwd=pWxOs8p8k2LqUcbzzZyD6fUt8ibMvU.1>

All the times are indicated in time zone: Warsaw CEST (GMT+1h)

Time	„Risk, safety, ergonomic – human factor in manufacturing” Session chair: Galina Robertsons			„Contemporary management challenges” Session chair: Grzegorz Pawłowski		
	ID paper	Author/Authors	Title	ID paper	Author/Authors	Title
13:30-13:50	11	Erika Zelca and Galina Robertsons	Indicators for Assessing Process Quality in the Pharmaceutical Manufacturing	16 on-line	Leonor Gonçalves, Ana Moura and Helena Alvelos	Human Resource Allocation Problem considering aptitude and work experience
13:50-14:10	38	Mihaela Palca, Matthias Lück and Carmen Constantinescu	Scalable solution for assessment of workplace ergonomics	24	Eliza Ioana Apostol, Aurel Mihail Titu and Constantin Dorin Olteanu	Enhancing the quality of aeronautical scientific research: a pathway to innovation and progress
14:10-14:30	45	Anna Stasiuk-Piekarska	Organizational risk in the context of sustainable development - results of pilot studies	34	Jacek Sledziński and Ismail Ozcan	Application of the Biform Games concept in combination with fuzzy logic - case study and mathematical model of a strategic situation
14:30-14:50	12 on-line	Rafael Ernesto Kieckbusch, Andrea Cristina dos Santos and Leticia Santiago	Height Work Analysis in the Distribution Center: A Safety II Approach Using the FRAM Model	51	Grzegorz Pawłowski and Stefan Trzciliński	Demand prediction based on simulation and machine learning techniques
14:50-15:00	60 on-line	Masoud Hajizade and Beata Mrugalska	Tacit Knowledge Sharing influencing Job Performance of Non-academic staff. Case of Iranian and Polish Public Universities	discussion		
15:10-17:00	walking tour					



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Wednesday 3rd July 2024

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Hour	3 rd July 2024
From 9:30	Tour - by a historic tram around Poznan



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