

October 22 nd , 2024 (Day 1 sessions from 12:00-16:30 UK time/ BST/ UTC +1)	
Timetable	Main room and Session A: https://zoom.us/j/96413365219 Passcode: CIRP Session B: https://zoom.us/j/97940774795 Passcode: CIRP
12:00-12:20	Opening session
12:20-13:00	Keynote speech 1 by Dr. Blake Kendrick / Renishaw plc (UK)
13:00-14:00	Session 1A: Precision Engineering I Session 1B: Digital Manufacturing I
14:00-14:05	5-min break
14:05-14:45	Keynote speech 2 by Prof. Shreyes N. Melkote / Georgia Institute of Technology (USA)
14:45-15:25	Keynote speech 3 by Dr.-Ing. habil. Marc-André Dittrich / DMG Mori (Germany)
15:25-16:25	Session 2A: Precision Engineering II Session 2B: Manufacturing Systems I
16:25-16:30	Photo taking and closure of Day 1
October 23 rd , 2024 (Day 2 sessions from 12:00-16:30 UK time/ BST/ UTC +1)	
Timetable	Main room and Session A: https://zoom.us/j/91672265573 Passcode: CIRP Session B: https://zoom.us/j/99216974013 Passcode: CIRP
12:00-12:40	Keynote speech 4 by Prof. Paulo Bartolo / Nanyang Technological Uni. (Singapore)
12:40-13:20	Keynote speech 5 by Dr. Evren Yasa / Advanced Manufacturing Research Centre (UK)
13:20-13:25	5-min break
13:25-14:40	Session 3A: Additive Manufacturing Session 3B: Manufacturing Systems II
14:40-14:45	5-min break
14:45-16:15	Session 4A: Digital Manufacturing II Session 4B: Sustainable Manufacturing
16:15-16:30	Closing session: Photo taking and closure of Day 2, Presentation of CIRPe 2025 by Prof. Nanya Li / NUAA (China), Acknowledgments and closure of the conference

Session 1A: Precision Engineering I (October 22 nd , @UK time/ BST/ UTC +1)	
Chairs: Dr Dongdong Xu, Dr Kaveh Rahimzadeh Berenji; Secretary: Hatice Elif Tola Demirel	
13:00	PROCIR-D-24-00566: Study on the electron dynamics of MoS2 under ultraviolet femtosecond laser irradiation <u>Huimin Qi</u> , Jinshi Wang
13:15	PROCIR-D-24-00783: Long-pulse fibre laser micro-hole drilling of nickel superalloy Mitchell Leering, Chris Ellis, Annie Kerwin, <u>Sundar Marimuthu</u>
13:30	PROCIR-D-24-00587: Study of liquid nitrogen cooled micro-milling of PEEK <u>Ni Chen</u> , Yibo Jia, Xiang Li, Xingzhi Xiao, Jiawei Liu, Shun Weng, Ning He
13:45	PROCIR-D-24-00588: Image processing with deep-learning and transfer learning for cutting tool degradation monitoring <u>Lorenzo Colantonio</u> , Lucas Equeter, Hugo Giovannelli, Pierre Dehombreux, Said Mahmoudi, Francois Ducobu

Session 1B: Digital Manufacturing I (October 22 nd , @UK time/ BST/ UTC +1)	
Chairs: Dr Francesco Gabriele Galizia, Dr Long Ye; Secretary: Alasdair Mitchell	
13:00	PROCIR-D-24-00505: Generative AI in manufacturing: A literature review of recent applications and future prospects <u>Sara Shafiee</u>
13:15	PROCIR-D-24-00593: Development of a concept for the design of user-friendly simulation models <u>Dirk Rechkemmer</u> , Merlin Korth, Marvin Carl May, Gisela Lanza
13:30	PROCIR-D-24-00574: A framework for digital assembly instructions as a step towards manufacturing inclusiveness <u>Yuchen Fan</u> , Alessandro Simeone, Dario Antonelli, Alessandra Caggiano, Paolo C. Priarone, Luca Settineri
13:45	PROCIR-D-24-00585: On a heuristic evaluation system for Industry 5.0 with respect to interventions: The case of training in businesses <u>Alexios Papacharalampopoulos</u> , Olga Maria Karagianni, Panagiotis Stavropoulos, Unai Ziarsolo, Peter Totterdill, Rosemary Exton, Steven Dhondt, Peter Oeij, Matteo Fedeli, Massimo Ippolito, Fabrizio Timo, Arturas Gumuliauskas, Dovilė Eitmantytė, Unai Elorz

Session 2A: Precision Engineering II (October 22 nd , @UK time/ BST/ UTC +1)	
Chairs: Dr Min Lai, Dr Ruslan Melentiev; Secretary: Zhaosheng Li	
15:25	PROCIR-D-24-00589: Methodologies for connecting an external signal-processing unit for adaptive control in machining systems <u>P. Georgi</u> , M. Richter, T. Reeber, K. Güzel, H.-C. Möhring
15:40	PROCIR-D-24-00851: Research on internal surface finishing of multi-cross channels <u>Jiang Guo</u> , Qikai Li, Liang Wang, Pu Qin, Mingyang Lu, Chao Wang
15:55	PROCIR-D-24-00741: Static stiffness analysis of an electronically preloaded rack and pinion feed drive system <u>Oier Franco</u> , Xavier Beudaert, Ibai Ulacia, Kaan Erkorkmaz, Jokin Munoa
16:10	PROCIR-D-24-00806: An advanced method to assess mechanical filtering effect of tactile coordinate-measuring system in dimensional measurement of additive manufacturing parts <u>Weidong Liu</u> , Xiao Chen, Wenhan Zeng, Dawei Tang, Paul J. Scott, Xiangqian Jane Jiang, Shan Lou

Session 2B: Manufacturing Systems I (October 22 nd , @UK time/ BST/ UTC +1)	
Chairs: Dr Pai Zheng, Dr Roham Sadeghi Tabar; Secretary: Jiacheng Wang	
15:25	PROCIR-D-24-00600: A review of quality improvement framework for industry 4.0 <u>Ricardo Baiochi</u> , Mauro Lizot, Eduardo Alves Portela Santos
15:40	PROCIR-D-24-00597: Application of the PM2 methodology in the analysis of assembly processes <u>Adenilson Furquim dos Santos</u> , Eduardo de F. Rocha Loures, Eduardo A. Portela Santos
15:55	PROCIR-D-24-00582: Remaining time prediction in manufacturing systems: an approach based on ML and process mining <u>João Gabriel Santin Botelho</u> , Eduardo Alves Portela Santos, Alexandre Checoli Choueiri, José Eduardo Pécora Junior
16:10	PROCIR-D-24-00591: Uncovering the potential and pitfalls of process mining in manufacturing <u>Júlia Villwock Gomes de Oliveira</u> , Eduardo Alves Portela Santos, Silvana Pereira Detro

Session 3A: Additive Manufacturing (October 23 rd , @UK time/ BST/ UTC +1) Chairs: Dr Evros Loukaides, Dr Maria Grazia Guerra ; Secretary: Ahmed Abotoor	
13:25	PROCIR-D-24-00579: Lithography-based additive manufacturing of steel metamaterials: effect of sintering temperature on shape distortion, microstructure and mechanical properties <u>Ruslan Melentiev</u> , Ahmed Wagih, Gilles Lubineau, Carlos A. Grande
13:40	PROCIR-D-24-00540: Toward overall indicators for comparing dimensional and geometrical performance of material extrusion printers with adaptive GBTA design <u>Laurent Spitaels</u> , Valentin Dambly, Edouard Riviere-Lorphevre, Francois Ducobu
13:55	PROCIR-D-24-00539: Reference geometries and indicators for the process window development of wire directed energy deposition <u>Konstantinos Tzimanis</u> , Nikolas Porevopoulos, Nikolas Bourlesas, Panagiotis Stavropoulos
14:10	PROCIR-D-24-00677: Continuous carbon fiber reinforced filaments manufactured by a cost-effective and two-step impregnation approach <u>Jianling Lu</u> , Rui Hong, Yuxin Zhang, Yunzhi Zhong, Guido Link, Luis Heinrich Wengenmayer, Jidong Li, Nanya Li
14:25	PROCIR-D-24-00580: Sinter-based lithography metal additive manufacturing of chiral mechanical metamaterials with a twist <u>Ruslan Melentiev</u> , Ahmed Wagih, Bram van der Heijden, Gilles Lubineau, Carlos A. Grande

Session 3B: Manufacturing Systems II (October 23 rd , @UK time/ BST/ UTC +1) Chairs: Dr Maria Chiara Magnanini, Dr Li Yi; Secretary: Alasdair Mitchell	
13:25	PROCIR-D-24-00583: Explainable reinforcement learning in job-shop scheduling: A systematic literature review <u>Fabian Erlenbusch</u> , Nicole Stricker
13:40	PROCIR-D-24-00572: Unlocking digitalization in the spool fabrication industry: Analysis of roadblocks using the IMF-SWARA integrated TFBM <u>Kiran Sankar M.S.</u> , Sumit Gupta, Sunil Luthra
13:55	PROCIR-D-24-00577: The applications of joint communication and sensing in manufacturing: A 6G technology <u>Marius Schmitz</u> , Jan Mertes, Daniel Lindenschmitt, Matthias Klar, Hans D. Schotten, Jan C. Aurich
14:10	PROCIR-D-24-00559: Multi-criteria decision making in evaluating digital retrofitting solutions: Utilising AHP and TOPSIS <u>Abdulrahman Alqoud</u> , Jelena Milisavljevic-Syed, Konstantinos Salonitis
14:25	PROCIR-D-24-00599: Prediction of task occurrence distribution for automated shop floor planning using multi-output support vector regressor <u>Unais Sait</u> , Marco Frego, Antonella De Angeli, Angelika Peer

Session 4A: Digital Manufacturing II (October 23 rd , @UK time/ BST/ UTC +1) Chairs: Dr Xingyu Li, Dr Marvin Carl May; Secretary: Hongli Ju	
14:45	PROCIR-D-24-00596: Assessing manufacturing agility: An updated state-of-the-art and operational insights <u>Asmae Bakry</u> , Nicolas Sauzeat, Khaled Medini
15:00	PROCIR-D-24-00568: Generative assistant for digital twin simulations <u>Pedro Antonio Boareto</u> , Eduardo de Freitas Rocha Loures, Eduardo Alves Portela Santos, Fernando Deschamps
15:15	PROCIR-D-24-00563: Development of an engineering drawing detection and extraction algorithm for quality inspection using deep neural networks <u>Madania Mahira Agritania</u> , Mohammad Mi'radj Isnaini
15:30	PROCIR-D-24-00609: Neural network-driven optimization of injection moulding parameters for enhanced recycling <u>Nicole Stricker</u> , Sankeerth Desapogu, Marius Schach, Iman Taha
15:45	PROCIR-D-24-00720: Application of generative AI technologies to engineering design <u>Daniel Byrne</u> , Vincent Hargaden, Nikolaos Papakostas
16:00	PROCIR-D-24-00578: Design model for digital shadows to support reconfiguration decisions in manufacturing <u>Michael Riesener</u> , Eric Rebentisch, Alexander Keuper, <u>Aileen Blondrath</u> , Philipp Weber, Günther Schuh

Session 4B: Sustainable Manufacturing (October 23 rd , @UK time/ BST/ UTC +1) Chairs: Dr Jelena Milisjavevic-Syed, Dr Florian Stamer; Secretary: Zhaosheng Li	
14:45	PROCIR-D-24-00590: Assessing the impact of qualitative and quantitative parameters on additive manufacturing carbon emissions <u>Aikaterini Paraskevopoulou</u> , <u>Vasiliki C. Panagiotopoulou</u> , <u>Panagiotis Stavropoulos</u>
15:00	PROCIR-D-24-00565: Sustainable manufacturing measures in practice: Insights from leading German manufacturing companies <u>Sebastian Beiner</u>
15:15	PROCIR-D-24-00631: Framework for monitoring electric vehicle battery second life health and estimating remaining useful life <u>Mohammad Rajabzadeh</u> , Vincent Hargaden, Pezhman Ghadimi, Christoph F. Strnadl, Nikolaos Papakostas
15:30	PROCIR-D-24-00605: Integrating blockchain with digital product passports for managing reverse supply chain <u>Hanbing Xia</u> , <u>Jiahong Li</u> , Qian (Jan) Li, Jelena Milisavljevic-Syed, Konstantinos Salonitis
15:45	PROCIR-D-24-00594: Digital product passport enabled production control in the context of circular economy <u>Yannik Hermann</u> , Christian Patlakis, Moritz Hörger, Marvin Carl May, Gisela Lanza
16:00	PROCIR-D-24-00584: Integrative inspection methodology for enhanced PCB remanufacturing using artificial intelligence <u>Florian Stamer</u> , <u>Rouven Jachemich</u> , Stefano Puttero, Elisa Verna, Maurizio Galetto