

Day 1: Wednesday, 16 th October 2019						
Time	ID	Title	ID	Title		
Montreal UTC-4	Berlin UTC+2	Shantou UTC+8				
8:00	12:00	18:00		Opening Session "7th CIRP Global Web Conference (CIRPe2019)"		
8:30	12:30	18:30	96	Highlighted Paper: Shifting value stream patterns along the product lifecycle with digital twins <i>Marc-André Dittreich^a, Benjamin Schleich^b, Till Clausmeyer^c, Roy Damgrave^d, John Ahmet Erkoyuncu^e, Benjamin Haefner^f, Jos de Lange^g, Denys Plakhotnik^h, Wieben Scheidelⁱ, Thorsten Wuest^j</i> ^a Institute of Production Engineering and Machine Tools (IFW), Leibniz Universität Hannover, Germany ^b Institute of Engineering Design, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany ^c Institute of Forming Technology and Lightweight Components, TU Dortmund, Germany ^d Department of Design, Production & Management, Design Engineering, University of Twente, Netherlands ^e School of Aerospace, Transport and Manufacturing, Cranfield University, Cranfield, United Kingdom ^f Institute of Production Science (wbk), Karlsruhe Institute of Technology (KIT), Germany ^g ModuleWorks GmbH, Germany ^h Institute of Product Development (IPeG), Leibniz Universität Hannover, Germany ⁱ Industrial and Management Systems Engineering, West Virginia University, Morgantown, USA		
9:00	13:00	19:00	43	Highlighted Paper: Highlights in Customer-driven Operations Management Research <i>Khaled Medini^a, Ann-Louise Andersen^b, Thorsten Wuest^c, Bjørn Christensen^d, Stefan Wiesner^e, David Romero^f, Ang Liu^g, Fei Tao^h</i> ^a Mines Saint-Etienne, Univ Clermont Auvergne, CNRS, France ^b Department of Materials and Production, Aalborg University, Denmark ^c Industrial & Management Systems Engineering, West Virginia University, USA ^d BIBA - Bremer Institut für Produktion und Logistik GmbH at the University of Bremen, Germany ^e Tecnológico de Monterrey, Del Puente 222, Col. Ejidos de Huipulco, Mexico ^f University of New South Wales, Australia ^g Beihang University, China		
9:30	13:30	19:30	72	Development and testing of a combined machine and process health monitoring system <i>Javier Dominguez-Caballero, Jon Stammers^a, James Moore^b</i> The University of Sheffield Advanced Manufacturing Research Centre, United Kingdom	33	A deep learning based-decision support tool for solution recommendation in cloud manufacturing platforms <i>Alessandro Simone^a, Alessandra Caggiano^{b,c}, Bin Deng^d, Lev Boun^e</i> ^a Intelligent Manufacturing Key Laboratory of Ministry of Education, Shantou University, China ^b Department of Industrial Engineering, University of Naples Federico II, Italy ^c Fraunhofer Joint Laboratory of Excellence on Advanced Production Technology (Fh-J_LEAPT UniNaples), Italy ^d Dynamic Computer Systems, Israel
9:50	13:50	19:50	16	Web-based platform for data analyzing and monitoring <i>Colin Reiff^a, Stefan Oechsle, Florian Eger, Alexander Verl</i> Institute for Control Engineering of Machine Tools and Manufacturing Units (ISW), University of Stuttgart, Germany	80	AI based combined scheduling and motion planning in flexible robotic assembly lines <i>Niki Kousi^a, Dimosthenis Dimosthenopoulos^a, Aleksandros-Stereos Matthaïakis^a, George Michalos^a, Sotiris Makris^{a,*}</i> ^a Laboratory for Manufacturing Systems & Automation, Department of Mechanical Engineering and Aeronautics, University of Patras, Greece
10:10	14:10	20:10	28	Towards a Connected Factory: Shop-floor Data Analytics in Cyber-Physical Environments <i>Dávid Gyulai^a, Júlita Bergmann^a, Viola Gallina^b, Alexander Gaal^b</i> ^a Centre of Excellence in Production Informatics and Control (EPIC), Institute for Computer Science and Control (SZTAKI), Hungarian Academy of Sciences (MTA), Hungary ^b Fraunhofer Austria Research GmbH, Austria	81	Model based reconfiguration of flexible production systems <i>Christos Gkourmelos^a, Niki Kousi^a, Angelos Christos Bavelos^a, Sotiris Aivaliotis^a, Christos Giannoulis^a, George Michalos^a, Sotiris Makris^{a,*}</i> ^a Laboratory for Manufacturing Systems & Automation, Department of Mechanical Engineering and Aeronautics, University of Patras, Greece
10:30	14:30	20:30	45	Data quality program management for digital shadows of products <i>Günther Schuh^a, Eric Rebentisch^b, Michael Riesener^c, Thorben Ipers^d, Christian Tömes^e, Merle-Hendrikje Jank^{a,*}</i> ^a Laboratory for Machine Tools and Production Engineering WZL, RWTH Aachen University, Germany ^b Massachusetts Institute of Technology, USA	29	Conception of a multi-user approach for a collaborative configuration of robotic automation systems using a microservice architecture <i>Eike Schäffer^a, Andreas Mayr, Jonathan Fuchs, Martin Sjarov, Johannes Vorndran, Jörg Franke</i> Institute for Factory Automation and Production Systems (FAPS), Friedrich-Alexander University Erlangen-Nuremberg (FAU), Germany
10:50	14:50	20:50	57	Machine Learning in Production – Potentials, Challenges and Exemplary Applications <i>Andreas Mayr^a, Dominik Kijfalki, Moritz Meiners, Benjamin Lutz, Franziska Schäfer, Reinhardt Seidel, Andreas Selmaier, Jonathan Fuchs, Maximilian Metzner, Andreas Blank, Jörg Franke</i> Institute for Factory Automation and Production Systems (FAPS), Friedrich-Alexander University Erlangen-Nuremberg (FAU), Germany	30	A method for collaborative knowledge acquisition and modelling enabling the development of a knowledge-based configurator of robot-based automation solutions <i>Eike Schäffer^a, Simon Fröhlig, Andreas Mayr, Jörg Franke</i> Institute for Factory Automation and Production Systems (FAPS), Friedrich-Alexander University Erlangen-Nuremberg (FAU), Germany
11:10	15:10	21:10	73	Statistical Process Control and maintenance policies for continuous production systems subjected to different failure impact models: literature review <i>Clément Dutoit^a, Pierre Dehombreux, Edouard Rivière Lorphèvre, Lucas Eguier</i> University of Mons, Belgium	85	Simulation Framework for Virtual Robot Programming in Reconfigurable Production Systems <i>Christian Brecher, Stephan Wein^a, Xiaomei Xu, Simon Storms, Werner Herfs</i> Werkzeugmaschinenlabor WZL of RWTH Aachen University, Germany
11:30	15:30	21:30	82	Conceptual framework of a digital twin to evaluate the degradation status of complex engineering systems <i>Davide D'Amico^a, John Ekoyuncu^b, Sri Addepalli^c, Christopher Smith^b, Ed Keedwell^b, Jim Sibson^c, Steven Penver^c</i> School of Aerospace, Transport and Manufacturing, Cranfield University, UK ^c College of Engineering, Mathematics and Physical Sciences, University of Exeter, ^a Babcock International, UK	75	AI-based Computer Aided Engineering for automated product design <i>Carmen Krahe^a, Maximilian Iberl^a, Alexander Jacob^a, Gisela Lanza^a</i> ^a Karlsruhe Institute of Technology, Germany
11:50	15:50	21:50	5	Smart Trucking? Status of Digital Transformation of the Trucking Industry: A Bibliometric Analysis <i>Makenzie Keepers, Thorsten Wuest^a</i> Industrial and Management Systems Engineering, West Virginia University, USA	27	Towards a Digital Twin for Thermal Processes: Control-centric approach <i>Alexios Papacharalampopoulos, Panagiotis Stavropoulos^a</i> Laboratory for Manufacturing Systems & Automation, Department of Mechanical Engineering and Aeronautics, University of Patras, Greece
12:10	16:10	22:10		Closing Session "Day 1"		Closing Session "Day 1"

Day 2: Thursday, 17th October 2019			
Time	ID	Title	ID Title
<i>Montreal UTC-4</i>	<i>Berlin UTC+2</i>	<i>Shantou UTC+8</i>	
7:50	11:50	17:50	Opening Session "Day 2"
8:00	12:00	18:00	48 Evaluation of a Concept Out-of-Autoclave Process for Manufacturing Carbon Fibre Reinforced Polymer Automotive Parts <i>T. Taylor^a, J. Zhang, J. Yanagimoto</i> ^a The University of Tokyo, Department of Mechanical Engineering, Japan
8:20	12:20	18:20	15 Enhancing fiber length measurements performed by X-ray computed tomography for improving the production quality of composite materials <i>Filippo Zanini^a, Simone Carmignato^a</i> ^a Department of Management and Engineering, University of Padua, Italy
8:40	12:40	18:40	19 Method for the investigation of mold filling in the fiber injection molding process based on image processing <i>Patrick Moll^a, Axel Schäfer^a, Sven Coutandin^a, Jürgen Fleischer^a</i> ^a Karlsruhe Institute of Technology, wbk Institute for Production Science, Germany
9:00	13:00	19:00	86 Development of a membrane-shaped MR-based composite preforming tool <i>Gert Schouterden^a, Jeroen Cramer^a, Eric Demeester^a, Karel Kellens^a</i> ^a KU Leuven, Diepenbeek Campus, Dept. of Mechanical Engineering, ACRO research unit, Belgium
9:20	13:20	19:20	64 Multi-objective optimization of machining parameters to minimize surface roughness and power consumption using TOPSIS <i>Shailendra Pawar^a, Girish Kant Garg^a, Srikanta Routroy^a</i> ^a Department of Mechanical Engineering, Birla Institute of Technology and Science, India
9:40	13:40	19:40	46 Computational and experimental investigation of cutting tool geometry in machining titanium Ti-6Al-4V <i>Stephanie Hall^a, Evripides Loukaides^a, Stephen T. Newman^a, Alborz Shokrani^a</i> ^a Department of Mechanical Engineering, University of Bath, UK
10:00	14:00	20:00	55 Quantitative Assessment of Machine Tool Condition through Fractal Analysis of Volumetric Error Vector Similarity Measures <i>Kanglin Xing^a, Xavier Rimpault^{a,b}, J.R.R. Mayer^a, Jean-François Chatelain^b, Sofiane Achiche^a</i> ^a Department of Mechanical Engineering, Polytechnique Montréal, Canada ^b Department of Mechanical Engineering, École de technologie supérieure, Canada
10:20	14:20	20:20	11 Cloud Manufacturing: An Automated Literature Review <i>Carsten Ellwein^a, Sascha Neff^b, Alexander Verl^a</i> ^a Institute for Control Engineering of Machine Tools and Manufacturing Units, University of Stuttgart, Germany ^b University of Stuttgart, Germany
10:40	14:40	20:40	39 Current practice and challenges towards handling uncertainty for effective outcomes in maintenance <i>Alex Grenyer^a, Fateme Dimohammadi^a, John A. Erkoyuncu^a, Yifan Zhao^a, Rajkumar Roy^b</i> ^a Through-life Engineering Services Centre, Cranfield University, UK ^b School of Mathematics, Computer Science & Engineering, City University of London, UK
11:00	15:00	21:00	92 Concept for the Configuration of Turnkey Production Systems <i>Philipp Gönheimer^a, Andreas Kimmig^a, Christopher Ehrmann^{a,b}, Jan Schlechtendahl^c, Jan Güth^c, Jürgen Fleischer^a</i> ^a Karlsruher Institut für Technologie, Kaiserstraße 12, 76131 Karlsruhe, Germany ^b Tongji University, Advanced Manufacturing Technology Center (AMTC), China ^c Bosch Rexroth AG, Germany
11:20	15:20	21:20	38 Data based root cause analysis for improving the logistic key performance indicators of a company's internal supply chain <i>Matthias Schmidt^a, Janine Tajjana Mater^a, Lasse Härtel^b</i> ^a Institute of Product and Process Innovation, Leuphana University of Lüneburg, Germany ^b Institute of Production Systems and Logistics, Leibniz Universität Hannover, Germany
11:40	15:40	21:40	14 Evaluation of proceedings for SMEs to conduct 14.0 projects <i>Philipp Schmitt^a, Jan Schmitt^a, Bastian Engelmann^a</i> Hochschule für angewandte Wissenschaften Würzburg-Schweinfurt, Germany
12:00	16:00	22:00	24 Multidimensional Assessment of Value Stream Design Alternatives <i>Christian Urnauer^a, Joscha Kaiser^a, Matthias Gunkel, Joachim Metternich^a</i> ^a Institute of Production Management, Technology and Machine Tools, Germany
12:20	16:20	22:20	Closing Session "Day 2"

Day 3: Friday, 18th October 2019			
Time	ID	Title	ID Title
<i>Montreal UTC-4</i>	<i>Berlin UTC+2</i>	<i>Shantou UTC+8</i>	
6:50	10:50	16:50	Opening Session "Day 3"
7:00	11:00	17:00	54 Adaptive resource management strategies in paper and pulp industry: a discrete event simulation approach <i>Anupam Keshari^a, Alessandro Simeone^a</i> ^a Centre for Advanced Studies, Dr. A.P.J. Abdul Kalam Technical University, India ^b Dept. of Mechatronics, College of Engineering, Shantou University, China
7:20	11:20	17:20	9 On The Change of Cost Risk and Uncertainty throughout the Life Cycle of Manufacturing Products <i>Oliver Schwabe^{1,2}, John A. Erkoyuncu^a and Essam Shehab²</i> ¹ Rolls Royce plc, UK ² Cranfield University, UK
7:40	11:40	17:40	51 Material Supply Strategy for Decentralized Assembly Control in Team Assembly <i>Torsten Stevers^a, Carsten Goldenstein^a, Kirsten Tracht^a</i> ^a University of Bremen, Bremen Institute for Mechanical Engineering (bime), Germany
8:00	12:00	18:00	
8:20	12:20	18:20	
8:40	12:40	18:40	
9:00	13:00	19:00	Closing Session "7th CIRP Global Web Conference (CIRPe2019)"

Industry Panel Discussion