

ICMR2017 Programme

Monday 4th Sept 17	
16:00 - 19:00	Registration: Queen Anne Council Room (QA63)
18:30 - 20:00	Reception: Queen Anne Council Room (QA63), Sponsored by FESTO

Tuesday 5th Sept 17			
8:30	Registration (QA63)		
9:30	Welcome & Introduction: Howe Lecture Theatre (QA80) Prof. Javier Bonet, Deputy-Vice-Chancellor for Research, University of Greenwich Prof. Simeon Keates, Deputy-Pro-Vice-Chancellor, University of Greenwich, General Chair of ICMR2017 Prof. James Gao, University of Greenwich, Chair of ICMR2017		
10:00 – 12:00	Keynote Session D1 (QA80), Chair: Simeon Keates Manufacturing Research: An Aerospace Perspective Mr. Clive Simmonds, BAE Systems, UK Digitisation and Automation – Manufacturing Perspectives and Future Developments Prof. Paul Maropoulos, Aston University, UK Adaptable Design of Open Architecture Products Prof. Peihua Gu, Shantou University, China Additive Manufacturing as a Key Factor for Smart Manufacturing Prof. Alain Bernard, Ecole Centrale de Nantes, France		
12:00	Lunch (QA63)		
13:30 – 15:00	Session 1 (QA80) Product Lifecycle Management Chair: Keith Case Foundation for a consistent benchmark on workflow technologies for the aerospace manufacturing engineering industry <i>Jaime Rojo Abollado and Essam Shehab</i>	Session 2 (QA38) Information and Knowledge Management Part A Chair: Clive Simmonds Knowledge Management in International Aerospace Collaboration Projects: the case of Saudi Arabia <i>Homoud Alshaigi and Ahmed Al-Ashaab</i>	Session 3 (QA39) Advanced Manufacturing Technology Part A Chair: Alain Bernard Bevel Gears Cutting Using a Disk Milling Tool for a CNC Five – Axis Machine <i>Yi-Pei Shih, Zi-Heng Sun and Bor-Tyng Sheen</i>

	An approach to PLC in Fast Moving Consumable Goods: A case study from Pakistan <i>Sadaf Zahoor, Adeel Shehzad, Keith Case, Muhammad Usman Saram, Zain Zahoor and Ijaz Ahmad Chaudhry</i>	A Formal Ontological Approach To Establish Semantic Coherence And Consistency In Welding Standards <i>Sattam Saha, Zahid Usman, Steve Jones, Rohit Kshirsagar and Weidong Li</i>	Hybrid Finishing Induced Surface Integrity of Gears- A Review <i>Kapil Gupta and Able Mashamba</i>
	An investigation on the engineering process oriented approach to aerospace quality assurance compliance in manufacturing SMEs <i>Abdullahi Hussein and Kai Cheng</i>	State of the art of Information Systems failure managements <i>Yousef Alduraywish, Yuchun Xu and Konstantinos Salonitis*</i>	Chemical Etching as a Method of Combatting Adhesive Wear During Severe Plastic Deformation of Commercially-Pure Titanium <i>Jacob Roszak, Andrzej Rosochowski and Malgorzata Rosochowska</i>
	Simulation Data Management in a Product Lifecycle Management Context <i>Aitor Iriondo, Jan Oscarsson and Manfred A. Jeusfeld</i>	Retrieval and re-use of manufacturing knowledge – A survey <i>Emeric Ostermeyer, Christophe Danjou, Alexandre Durupt and Julien Le Duigou</i>	Optimising material property testing of ULTEM 9085, a high performance additive manufacturing material for efficient component design <i>Fayyaz Rehman and John Diston</i>
	Identification of critical building blocks in PLM System Implementation in the automative supply chain <i>Joseph Paul Zammit, James Gao and Richard Evans</i>	Knowledge Management Yesterday and Tomorrow: Exploring an ‘Intellectual Paradox’. <i>Alexslis Maindze, Ian Jennions and Zakwan Skaf</i>	Fabrication of Hydrophobic Structures by Nanosecond Pluse Laser <i>Yukui Cai, Ana M. L. Sousa, King Hang Aaron Lau, Wenlong Chang and Xichun Luo</i>
15:00	Coffee Break (QA63)		
15:30 – 17:00	Session 4 (QA080) Transportation Systems <u>Co-Chairs: Essam Chehab & Leigh Kirkwood</u>	Session 5 (QA38) Information and Knowledge Management Part B <u>Chair: Peihua Gu</u>	Session 6 (QA39) Advanced Manufacturing Technology Part B <u>Chair: Benoit Eynard</u>
	Requirements analysis of digital technology for the rail industry <i>Sam Court, Leigh Kirkwood, Michael Farnsworth, Ilja Orlovs, Essam Shehab and Neil Tinworth</i>	Electronic Data Interchange (EDI): A study of the application of information systems in the auto parts industry supply chain <i>Marcelo Okano, Oduvaldo Vendrametto, Marcelo Eloy Fernandes and Eliane Simoes</i>	Experimental investigation of surface roughness for different thickness of Aluminum in abrasive waterjet machining <i>Sadaf Zahoor, Adeel Shehzad, Keith Case, Amjad Hussain, Zain Zahoor and Muhammad Waqar Shoaib</i>
	A review of digital wayfinding technologies in the transportation industry <i>Sergio Peña Miñano, Leigh Kirkwood, Sam Court, Michael Farnsworth and Ilja Orlovs</i>	C-MARS-ABM: A deployment approach for cloud manufacturing <i>Mohamed Mourad, Aydin Nassehi, Stephen Newman and Dirk Schaefer</i>	Experimental Investigation of overcut in WEDM of WC-Co composite material <i>Pardeep Kumar and Jatinder Kumar*</i>

	Optimisation strategy for efficient platform train interface activity <i>Michael Farnsworth, Leigh Kirkwood, Sam Court, Essam Shehab and Neil Tinworth</i>	Exploring the open innovation practices of three multi-national manufacturing firms <i>Dana Rion-Davies and Richard Evans</i>	Ultra-fast-prototyping of PMMA structures for micro-engineering applications: Choosing the right material <i>Alfredo Ongaro, Gioacchino Conoscenti, Antonio Liga, Valerio Brucato, Marc Desmulliez, Nicola Howarth, Vincenzo La Carrubba and Maiwenn Kersaudy-Kerhoas</i>
	Understanding users' behaviours in relation to concentrated boarding: implications for rail infrastructure and technology <i>Catherine Fox, Luis Oliveira, Leigh Kirkwood and Rebecca Cain</i>	Manufacturing Optimisation Based on Agile Manufacturing and Big Data <i>Md Ashikul Alam Khan, Habtom Mebrahtu, Hassan Shirvani and Javaid Butt</i>	Optimization of Friction Stir Welding of 5083-H321 Using Response Surface Methodology <i>Hari Singh and Jitender Kundu*</i>
		Assessing the role of knowledge and project management in the competitiveness of manufacturing firms in Baja California <i>Eduardo Ahumada-Tello, Richard Evans and Manuel Castañón-Puga</i>	Critical evaluation of manufacturing innovations-A case study of 3D printing <i>Oladele Owodunni</i>
17:00		COMEH meeting (QA38)	
18:30		COMEH meeting closed	

Wednesday 6th Sept 17	
8:30	Registration (QA63)
9:00 – 10:30	Keynote Session D2 (QA80), Chair: James Gao
	Product Lifecycle Management: Current Research Status and Latest Application Issues Prof. Benoit Eynard, Universite de Technologie de Compienge, France
	Engineering for Life: Current Research Challenges and the Future Prof. Rajkumar Roy, Cranfield University, UK
	High Efficient Energy Saving Curing Technology and Equipment for Advanced Aviation Composites Prof. Yingguang Li, Nanjing University of Aeronautics and Astronautics, China
10:30	Coffee Break (QA63)

11:00 – 12:30	Session 7 (QA80) Cyber-Physical Systems (Industry 4.0) Part A Chair: Jenny Harding	Session 8 (QA38) Manufacturing Systems Part A Chair: Sameh Saad	Session 9 (QA39) Advanced Manufacturing Technology Part C Chair: Mike Morgan
	A new approach to handling precise tolerances <i>Anselm Lorenzoni, Christopher Tielemann and Alexander Sauer*</i>	Autonomous Machining System for Optimizing Feedrates Based on Cutting Force Control <i>Hong Seok Park, Duc Viet Dang and Bowen Qi</i>	Research on the Effect of Shear Clearance on the Processing of Copper Sheet <i>Bing Ouyang, Jiabin Lu, Qiusheng Yan, Jun Zeng, Hui Li and Zhihui Kuang</i>
	Production System Identification with Genetic Programming <i>Peter Denno, Charles Dickerson and Jenny Harding</i>	CLAM - A method for cognitive load assessment in manufacturing <i>Peter Thorvald, Jessica Lindblom and Rebecca Andreasson</i>	Finite Element Analysis on Conventional Drilling of Natural Fibre-Reinforced Polymer Bio-composites <i>Sikiru Oluwarotimi Ismail, Hom Nath Dhakal and Yousef Awwadh Alzaidi</i>
	Industry 4.0 and its Potential Impact on Employment Demographics in the UK <i>Joseph Flynn, Steven Dance and Dirk Schaefer</i>	Gamification to Engage Manufacturers with Servitization <i>Daniel Andrews, Panagiotis Petridis, Tim Baines, Ali Ziaee Bigdeli, Victor Guang Shi, James Baldwin and Keith Ridgway</i>	The Characterization of Soda-lime Based Silica Glass Powder for use as a Mass Finishing Abrasive Media <i>M. N. Morgan, M. Jamal and D. Peavoy*</i>
	A Data-Driven Business Model Framework for Value Capture in Industry 4.0 <i>Dirk Schaefer, Joel Walker and Joseph Flynn</i>	Development of NPD Portfolio Management in Project Based Environments <i>Satya Shah, Elmira Naghi Ganji and Alec Coutroubis</i>	A Review of Technical Challenges of Laser Drilling Manufacturing Process <i>Shoaib Sarfraz, Essam Shehab and Konstantinos Salonitis</i>
	The Internet of Things, Factory of Things and Industry 4.0 in Manufacturing: Current and Future Implementations <i>Enrique Ruiz Zúñiga, Anna Syberfeldt and Matias Urenda Moris</i>	Design and Planning Petroleum Supply Chain <i>Sameh Saad, Elganidi Elsaghier and David Ezaga</i>	High-pressure microwave curing technology for advanced polymer matrix composite materials <i>Jing Zhou, Yingguang Li, Xiaozhong Hao and Nanya Li</i>
12:30	Lunch (QA63)		
14:00 – 15:30	Session 10 (QA80) Cyber-Physical Systems (Industry 4.0) Part B Chair: Hyun-Joon Chung	Session 11 (QA38) Manufacturing Systems Part B Chair: Yuchun Xu	Session 12 (QA39) Sustainable Manufacturing Part A Chair: Satya Shah
	An IoT-enabled Supply Chain Integration Framework: Empirical Case Studies <i>Susan Wakenshaw, Carsten Maple, Daqiang Chen and Rosario Micillo</i>	Experimental Ultrasonic Consolidation of FBGs in Aluminum <i>Samir Mekid and H Daraghma</i>	An Evaluation of Demand-Driven Chain Contribution to Sustainable New Product Development <i>Elmira Naghi Ganji, Satya Shah and Alec Coutroubis</i>

	Optimization Based Motion Simulation of Industrial Manipulator for Small Working Space <i>Hyun-Joon Chung, Eui-Jung Jung and Goobong Chung</i>	Multi-Objective Optimization For Models Sequencing In Mixed-Model Assembly Lines <i>Mudassar Rauf, Shoaib Sarfraz, Essam Shehab and Mirza Jahanzaib</i>	A Proposed Implementation Process for a Sustainable Manufacturing Framework <i>Haitem Fargani, Wai Cheung and Reaz Hasan</i>
	Research on key technology of CNC machine tool intelligent monitoring system for smart factory <i>Jingguo Jiang, Chuipin Kong, Wei Liu, Qiang Niu and Xionghui Zhou</i>	Software Integration of Process Monitoring Equipment in Grinding Control Design <i>J. J. Moruzzi and M. N. Morgan*</i>	Improving Sustainability of Manufacturing Systems through Integrated Sustainable Value Stream Mapping tool – Conceptual Model <i>Wadhah Ahmed Abualfaraa, Konstantinos Salonitis and Ahmed Al-Ashaab</i>
	Multi robot path planning approach for dynamic environment <i>David Trimoulet, Madeleine El Zaher, M'Hammed Sahnoun, David Baudry and Celine Viazzi</i>	Improving manufacturing systems with regard to the concept of ultra-efficiency <i>Robert Miehe, Siegfried Stender, Nicolas Hessberger, Joerg Mandel and Alexander Sauer</i>	Building in Multifunctionality in Plastic Components: Complexity, Cost and Sustainability <i>Vannessa Goodship, Bethany Middleton, Eleni Fiamegkou and Ruth Cherrington</i>
	An Information Security Risk Management Model for Smart Industries <i>Nader Sohrabi Safa, Carsten Maple and Tim Watson</i>	A Chemical Substance Reporting System for Manufacturing Companies <i>Sukhraj Takhar and Kapila Liyanage</i>	Sustainable manufacturing assessment: approach and the trend towards life cycle sustainability analysis <i>Mijoh Gbededo and Kapila Liyanage</i>
15:30	Coffee Break (QA63)		
16:00 – 17:30	Session 13 (QA080) Industry-Based Research in Naval Shipbuilding and Aerospace Co-Chairs: Richard Evans & Mohammed El Souri	Session 14 (QA38) Cost Engineering Chair: Yan Jin	Session 15 (QA39) Sustainable Manufacturing Part B Chair: Rajkumar Roy
	Improved integration between engineering and supply chain through a data quality and governance framework <i>Christopher Sanders</i>	Using Systems Engineering to develop a novel manufacturing cost model <i>Nithiananthan Kuppusamy, Robert Ian Whitfield, Abigail Hird, Stephen Brown, Coreen McCubbin and Paul McCubbin</i>	Corporate Social responsibility (CSR): Assessment of awareness and practices in the manufacturing sector of Pakistan <i>Amjad Hussain, Syed Fahad Ali, Keith Case, Tariq Masood and Maryam Masood</i>
	Key Findings to Support the Development of a Framework for the Implementation of Product Lifecycle Management in Engineer to Order Products <i>Daniel McKendry, Robert Ian Whitfield and Alex Duffy</i>	Variation Model and Analysis of Spatial Assembly with Multiple Closed Chains <i>Vincent McKenna, Yan Jin, Adrian Murphy, Michael Morgan, Caroline McClory, Colm Higgins and Rory Collins*</i>	Eco Lean Sustainability Control Panel – A tailored indicator system for day-to-day operations in manufacturing facilities <i>Robert Miehe, Ivan Bogdanov and Alexander Sauer</i>

	A PLM Centric Approach to the Transition from Design to Manufacturing in First of Class Naval Shipbuilding <i>Steven Arthur</i>	Analysis of drilling parameters for Al-Mg ₂ -Si Metal Matrix <i>A Khan, S H I Jaffery, S Jahangir, L Ali, M Fahad, M Khan, S Shah, A Khan, I Haq, F Shaf, A.A. Khan, N Khattak, and S. Butt</i>	Multi-Disciplinary Integrated Aircraft Cost Suite for Optimisation Study <i>Davide Di Pasquale, David Gore, Mark Savill and Timoleon Kipouros</i>
	An analysis of design for manufacturing requirements for managing aerospace manufacturing knowledge <i>Mohammed El Souri, James Gao, Oladele Owodunni, Clive Simmonds and Nick Martin</i>	Integrating Financial Metrics with Production Simulation Models <i>Adrian Murphy</i>	Sustainable Manufacturing of Precision Miniature Gears by Abrasive Water Jet Machining-An Experimental Study <i>Kapil Gupta and Thobi Phokane</i>
		Economic Analysis of the Helical Form Grinding Process <i>P. W. Hart and M. N. Morgan*</i>	The Application of Group Consensus Theory to Aid Organizational Learning and Sustainable Innovation Development in Manufacturing Enterprises <i>Andrew Thomas, Mark Francis, Ron Fisher and Claire Haven-Tang</i>
17:30	Sessions Close		
18:45	Pre-Dinner Drinks (Queen Mary Colonnades)		
19:30	Conference Dinner (Queen Mary Undercroft)		
22:30	Close		

Thursday 7th Sept 17			
8:30	Registration (QA63)		
9:00 – 10:00	Keynote Session D3 (QA80), Chair: Keith Case		
	Opportunity and Innovation Mr. Brian Rutter, Ford Motor Company, UK		
	Digitisation of Skill-Intensive Manufacturing Processes Prof. Ashutosh Tiwari, University of Sheffield, UK		
10:00	Coffee Break (QA63)		
10:30 – 12:00	Session 16 (QA80) Additive Manufacturing Part A Chair: Oladele Owodunni	Session 17 (QA38) Product Design and Development Chair: M'hammed Sahnoun	Session 18 (QA39) Lean Manufacturing Chair: Andrew Thomas

	Microfluidic snap-fit assembly enabled by additive manufacturing <i>Mohamed Ashour and Maiwenn Kersaudy-Kerhoas</i>	Customer Driven Mass-Customisation And Innovative Product Development With Parametric Design And Generative Modeling <i>Chi Hieu Le, Wisnu Wijaya Kasmaji, Sam Mengistu, Michael Packianather, Duc Tang Tran and Anh My Chu</i>	A Quantitative Study of the Barriers to Lean Manufacturing Implementation in Libya <i>Mohamed Abduelmula, Martin Birkett and Chris Connor</i>
	A comparison of a novel soft injection moulding tooling method and additive manufacturing for prototype production <i>Kledson Silva, Nick Tucker and Andrew Harsley</i>	3D Object Comparison with Geometric Guides for Interactive Evolutionary CAD <i>Theodora Retzepe, Ian Graham and Mey Goh</i>	Profiling the Future Demands of the UK Food Supply Chain <i>Andrew Thomas, Paul Byard, Claire Haven-Tang and Diane Sedgley</i>
	Numerical modelling of the gas-powder flow during the laser metal deposition for additive manufacturing <i>Quanren Zeng, Yankang Tian, Zhenhai Xu and Yi Qin</i>	Modelling of Temperature Distribution in Orthogonal Machining using Finite Element Method <i>Sunday Joshua Ojolo, Ahmed Amok Yinusa and Sikiru Oluwarotimi Ismail</i>	Review of implementing Lean Six Sigma to reduce environmental wastes of internal supply chains in food industry <i>Farhad Nabhani, Shilon Bala, Alireza Shokri and Garry Evans</i>
	An investigation into Additive Manufacturing material tensile properties for different build orientations of parts <i>Robert Benham and Fayyaz Rehman</i>	A Numerical and Experimental Study of Carbon Fibre Riveted Splice Joints <i>Avinash Shinde and Martin Birkett</i>	Development of a six-sigma and TQM integration model for business excellence <i>Sameh M Saad and Mohamed Khamkham</i>
		Interventions to Develop an Improvement Culture within Nonprofit Organizations <i>Sulaiman Almaiman, Patrick McLaughlin and Ahmed Al-Ashaab</i>	A Review of Social Media tools on Knowledge Sharing in Research <i>Mohamed Alshalaan, Ashutosh Tiwari and Christopher Turner</i>
12:00	Lunch (QA63)		
13:30 – 16:30	Session 19 (QA80) Additive Manufacturing Part B/ Education in Manufacturing Chair: <u>Weidong Li</u>	CoRoT Industrial Workshop (QA75) Chair: <u>David Baudry</u>	
	Definition, Parameterisation and Standardisation of Machine-specified Process in Additive Manufacturing <i>Jinhua Xiao, Nabil Anwer, Alexandre Durupt, Julien Le Duigou and Benoit Eynard</i>	AGV and Mobile Robotics <i>Led By BAS, ESIGELEC, and CESI</i>	
	Production of multiple material parts using a desktop 3D printer <i>Javaid Butt, Habtom Mebrahtu and Hassan Shirvani</i>	Low Cost Robotic Arm and Cobotic <i>Led by Autofina and UOH</i>	

	The Pedagogical Impact of Augmented Reality on Architectural Education <i>Seyed Masoud Sajjadian</i>	Automation and Flexible Manufacturing <i>Led by CERI, CESI, UoG and UoE</i>
	Utilising Learning Analytics in Knowledge Management Adoption for Effective Manufacturing Education <i>Abdullah Alenezi and Christos Emmanouilidis*</i>	
16:30	Closing Session (QA80)	
17:00	Conference Close	CoRoT Project Kick-Off Meeting, (QA063) Companies and researchers/innovators in the EU especially in the France-Channel-England area are invited to attend it. Project partners and industrial steering committee members will attend it.
18:30		Corot Reception Drinks and Networking
19:30		Close

Friday 8th Sept 17	
8:30	Meeting (CoRoT Partners Only), (QA063)
13:00	Lunch
14:00	Close

Conference Rooms: Queen Anne Council Room (QA063), Howe Lecture Theatre (QA080), Queen Anne Court Room 038 (QA038), Queen Anne Court Room 039 (QA039), Edinburgh Room (QA075), Queen Mary Undercroft.