

# 8th EASN - CEAS International Workshop on Manufacturing for Growth & Innovation

## Final Programme

Rooms	1	2	3	4
<b>Time</b>	<b>Day 1 Tuesday, September 4<sup>th</sup>, 2018</b>			
8:30 - 18:00	<b>Registration</b>			
9:15 - 9:20	<b>Welcome</b> by the Head of College of Science & Engineering and Vice-Principal of the University of Glasgow, <b>Prof. Muffy Calder</b>			
9:20 - 9:30	<b>Welcome and Introduction</b> by the Conference Co-Chairmen, <b>Prof. Kostas Konis</b> and <b>Prof. Spiros Pantelakis</b>			
9:30 - 10:00	<b>"Finalising Horizon 2020, gearing up for Horizon Europe"</b> Key-Note lecture speech by <b>Dr. Sebastiano Fumero</b>   European Commission, DG RTD, H3 Aviation unit			
10:00 - 10:30	<b>"Future Factory of Large Passenger Aircraft – Research in CleanSky 2 and beyond"</b> Key-Note lecture speech by <b>Mr. Jens Koenig</b>   AIRBUS			
10:30 - 11:00	<b>Coffee Break</b>			
Session 11:00 - 12:40	Sir Charles Wilson building, Lecture Theatre	Gilmorehill Centre (G12), Room 217(A)	Gilmorehill Centre (G12), Room 217(B)	
Session Title	Driving forward Innovation in advanced manufacturing – PART I	Future Challenges of Unmanned Aerial System	NDfonAIR project	
Session Chair(s)	Konstantinos Konis (University of Glasgow)	Fulvia Quaglini (Politecnico di Torino)	Elena Jousuniene (Kaunas University of Technology)	
11:00 - 11:20	11:00 - 11:25 <b>Aerospace of the University Of Glasgow</b> Konstantinos Konis	On a novel technique for hypersonic vehicle control Petelica Parasgiorou, Christos Bliamis, Dimitrios Miltiadis, Kyros Vaynitos	NDfonAIR: Training Network in Non-Destructive Testing and Structural Health Monitoring of Aircraft structures (Overview) S. Amato, A. Bai, H. Cherba, S. Gortsev, Y. Kim, H. Mideleshahmoradi, M. K. Rowan, T. Sessini, M. Starom, S. Sunechilava, J. Vyas, S. Wolter, Q. Yi, B. Yilmaz, A. Zikou, A. Angulo, G. Bertolotti, P. Bugharzi, P. Burzacconi, S. Dixon, C. Gleaves, D.A. Hutchins, E. Jousuniene, R. Kazys, B. Koehler, S. Laurin, L. Mazzeo, H. Pfeiffer, D. Premel, C. Reboud, J. Reynaert, M. Ricci, S. Sosa, G.Y. Tian, M. Wevers	
11:20 - 11:40	11:25 - 11:50 <b>A Plate Model for the Compressive Strength of Composites following Impact Damage</b> Richard Butler	UAS as flexible and innovative test platform for circuit configuration and system testing Dominique Paul Bergmann, Jan Denzel, Andreas Strohmayer	The relationship between ultrasonic wave parameters and the bonding quality Bengisu Yilmaz, Elena Jousuniene	
11:40 - 12:00		Optimization of Fixed Propeller for Tilt-Wing UAV Jan Krcak	A review on nondestructive techniques and characteristics of composite materials for the aerospace system Jalshree Vyas, Kalya Rymantas Jonas	
12:00 - 12:20	11:50 - 12:15 <b>The FutureForge challenge: establishing a viable digital twin for a traditional process technology</b> Michael Ward	Failure Modes and Effects and Criticality Analysis and Fault Tree Analysis methodologies applied to civil RPAS systems Dalia Vedova Marzoo D. L., Bonifante Federica, Magagnoli Paolo	Highly non-linear sensing devices in aircraft monitoring H. Pfeiffer, S. Sunechilava, M. Wevers	
12:20 - 12:40	12:15 - 12:40 <b>A Systems Engineering Approach to Delivering Manufacturing Growth</b> William Kipatwick	Multirator selected states determination based on wavelet analysis of vibrations Piotr Graybowski, Pawel Kuzdzioł	12:20 - 12:40 <b>The Use of Pulse Compression Technique in Non-Destructive Testing: A Review</b> Hamad Mideleshahmoradi, Muhammad Khalid Rizwan, Stefano Laureti, Pietro Burzacconi, David Hutchins, Guo Yun Tian, Junshan Zhu, Qi Qi Yi, Marco Ricci	
12:40 - 13:40	<b>Lunch Break</b>			
13:40 - 14:10	<b>"Pioneering in Hypersonic Transportation: Technological Challenges, Paradigms and Paradoxes"</b> Key-Note lecture speech by <b>Mr. Johan Steelant</b>   European Space Agency (ESA)			
Session 14:20 - 15:40	Sir Charles Wilson building, Lecture Theatre	Gilmorehill Centre (G12), Room 217(A)	Gilmorehill Centre (G12), Room 217(B)	James Watt South building Room 526
Session Title	Innovative technologies for future composite aircraft structures	High Speed Aviation Student Initiative	NHYTE project	Morphing aircraft structures / Structural health monitoring in aerospace structures
Session Chair(s)	Peter Middendorf (University of Stuttgart)	Markus Nordberg (CERN)	Marco Barile (NOVO/TECH)	Yavuz Yaman (Middle East Technical University)
14:20 - 14:40	Variability propagation, process monitoring and simulation tools for predictive modelling of RTM processes Sivko Faccolotto, Kostas Nikitias, Athanasios Pouchkos, Anthony Pickett, Alex Kardos, Amin Jasin, Carlos Miguel Garrido		Environmental and financial performance evaluation of a helicopter's canopy production using different materials and manufacturing processes Ch.V.Kathirapoulos, A.Loukopoulos, Sp.G. Pantelakis	Modelling and Simulation of Research on Electromagnetic Scattering Characteristics of Aircraft Uku Jianyan, Ai Junqiang, Wang Jian, Sun Jianhang
14:40 - 15:00	CANAL - Development of Non-Conventional composite laminates Ronald Klomp - de Boer	Discussion Panel with the participation of project partners and invited international experts	Advanced O&A and Automated Technologies for the manufacturing of a composite outer wing box Fulvio Romano, Marco Barile, Gianpaolo Ciaccioffalo, Jean-Luc Godard, Paolo Voltera, Philippe Barabant	Dynamic Force Analysis of a Novel Mechanism for Chord and Camber morphing under Aerodynamic loading Hassan Lewati, Sahin, Bora Orkun Cakir, Yavuz Yaman
15:00 - 15:20	Numerical simulation of impact response of composite bonded joints Konstantinos Sargis, Dimitrios Athinaios		Process simulation of PEI-CF/PEEK hybrid thermoplastic composites in a laser-assisted automated fibre placement Bahar Omar, Gilles Ausias, Julien Ferec	Development of a real time intelligent health monitoring platform for zero-engine Mario Grazia De Giorgi, Stefano Campalongo, Antonio Picarella
15:20 - 15:40	Damage Tolerance Design of Composite Bonded Joints using Disbond Arrest Features (EU-F77 Project BOPAC3) Robyn Sachse, Thomas Kraus, Thomas Koewiers, Anthony Pickett, Peter Middendorf		A challenge for next A/C Fuselage: New Hybrid Thermoplastic Material, Testing activities definition A. Marmone, M. Raffone, S. Russo	Integration and Test of Piezoceramic Patch for Structural Health Monitoring in Aerospace applications Zdenek Hadzi, Filip Káca, Jiri Hlinka
15:40 - 16:10	<b>Coffee Break</b>			
Session 16:10 - 17:50	Sir Charles Wilson building, Lecture Theatre	Gilmorehill Centre (G12), Room 217(A)	Gilmorehill Centre (G12), Room 217(B)	James Watt South building Room 526
Session Title	Virtual Reality Digital HMI, Chat Bots and Blockchain in Manufacturing	High Speed Aviation Student Initiative	Innovative Materials and Processes for Innovating manufacturing - PART I	Smart Morphing & Sensing for aeronautical configurations (S&S) project
Session Chair(s)	Andreas Koellner (ALTRAN)	Markus Nordberg (CERN)	Spiros Pantelakis (University of Patras)	Marianna Brazza (CNR)
16:10 - 16:30	Printed Electronics Christine Theede		Development of Fiction Stir Weld-Bonding for Fuselage Bolt Joints of MCA Level P. M. G. P. Moreira, Daniel F. C. Braga, Luciano Bergmann, V. Vitoria, Lucas da Silva, J. F. dos Santos, M. Paccione	Hybrid electroactive morphing in multiple time scales for smart wing leading through turbulence control M. Brazza, J.F. Rouchon
16:30 - 16:50	Integrative Life Cycle Assessment for Sustainable Aviation Vincent Ackenhusen		Integration of Scientific Innovations into Business Decision and Product Manufacturing based on Materials Modelling and Simulation Natalia Konchalova, Daniel Heiche, Mikhail Zheludkevich	Large-scale high-lift morphing flap by means of electromechanical actuators for take-off/landing B. Nagayede, A. Giraud
16:50 - 17:10	Applications of Blockchain in a manufacturing context Konstantin Graf	Discussion Panel with the participation of project partners and invited international experts	High temperature shape memory alloys: Advanced characterization and modeling Nikolaos Michailidis	Aerodynamic performance through morphing and vibrating trailing-edge of the A320 wing in transonic speeds P. Flizyński, J.B. To
17:10 - 17:30	Next Generation Smart Cabin and Connected Aircraft Roman Bugajcan		Efficient Simulation of lattice structures produced by Powder Bed Fusion George Labeas	Multi-point sensing by dynamic pressure measurements through Bragg gratings V. Lamour, J.B. Paris, P. de Lacaze
17:30 - 17:50	FASTEN: an IoT platform for manufacturing, Embraer use case Reis, J.N., dos Ricardos, Diniz, Flávia R. L.; Mialoko, Luciano S.; Olivio, Paulo B.; Lemos, Gleiverson F. C.; Quintiles, Alarcos; Meneses, Ruben; Amadio, Fábio; Moritz, Samuel; Amis, Rafael; Guzmánelli, Sérgio		Comparison of composite laminates machining methods and its influence on process temperature and edge quality Robert Jozefewicz	17:30 - 17:50 High-fidelity Numerical simulation of morphing A320 wing in subsonic speeds and sensitivity matrix evaluation G. Zamboni, F. Krüner, F. Thiele 17:50 - 18:10 Airbus presentation on the wings of the future D. Deschmaeker, A. Fontaine
19:00	<b>Civic Reception - Glasgow City Chambers</b>			