

mtc

Manufacturing
Technology Centre

MADE FOR

SPACE

NEW MANUFACTURING
OPPORTUNITIES

EVENT
AGENDA

2 - 3 · 05 · 19

MTC | ANSTY PARK | COVENTRY

DAY ONE

9:30-10:30	Registration / Refreshments / Exhibition
10:30-10:40	Welcome, overview of advanced manufacturing technology and plan for the day <i>Steve Statham, Associate Director, Emerging Markets, MTC</i>
10:40-11:05	How can the UK space sector lead the world? <i>Graham Peters, Chairman, UK Space</i>
11:05-11:30	What does the future hold for space manufacturing in the UK? <i>Tony Mears, Technology Road Mapping and Harmonisation Lead, UK Space Agency</i>
11:30-12:00	Future manufacturing challenges in space <i>Thomas Rohr, Head Materials and Processes, ESA</i>
12:00-13:30	Lunch / Networking / Exhibition
13:30-15:00	Parallel Technical Sessions
PARALLEL 1	ADDITIVE MANUFACTURING LOCATION: MAIN LECTURE THEATRE
13:30-14:00	Opportunities and challenges for AM in space <i>Johannes Gumpinger, Advanced Manufacturing Processes Engineer, ESA</i>
14:00-14:30	Role of the ESA AM Benchmarking Centre in developing and proving AM technology for space <i>David Brackett, Technology Manager, Additive Manufacturing, MTC</i>
14:30-15:00	AM part verification for space <i>Ernest Allswell, Materials and Processes Engineer, Airbus Defence & Space</i>
PARALLEL 2	ROBOTICS AND AUTONOMOUS SYSTEMS LOCATION: ROOM 1
13:30-14:00	Next generation robotics ready for the space sector <i>Graeme Cleeton, VP UK Operations, ULC Robotics</i>
14:00-14:30	UK National FAIR-SPACE Hub: AI robotics for sustainable space manufacturing <i>Yang Gao, Director of FAIR-SPACE Hub and Head of SSC-STAR Lab, Fair Space/SSC</i>
14:30-15:00	Space Manufacturing, Assembly & Repair <i>Austin Cook, Lead Engineer, Emerging Technologies and Systems, Manufacturing Technology, BAE Systems</i>
PARALLEL 3	SURFACE ENGINEERING AND HIGH PERFORMANCE COATINGS LOCATION: ROOM 2
13:30-14:00	Antimicrobial coatings and applications in space <i>Felicity De Cogan, Director, Nitropep</i>
14:00-14:30	Advanced coatings to prevent surface contamination <i>Alan Taylor, Technology Fellow, TWI</i>
14:30-15:00	High performance thermal control and tribological surfaces <i>Suman Shrestha, Vice President of Applications, Keronite</i>

DAY ONE

15:00-15:30	Refreshments / Networking / Exhibition
15:30-17:00	Parallel Technical Sessions
PARALLEL 1	ADDITIVE MANUFACTURING LOCATION: MAIN LECTURE THEATRE
15:30-16:00	Additive manufacturing in Airbus Defence & Space <i>Jason Gilmore, New Product & R&D Technical Lead, Airbus Defence & Space</i>
16:00-16:30	High Strength Aluminium Wire Arc Additive Manufacturing for Space <i>Chris Dent, Head of Research & Technology, Lockheed Martin UK</i>
16:30-17:00	Space Applications of wire based Additive Manufacture <i>Stewart Williams, Director of the Welding Engineering & Laser Processing Centre, Cranfield University</i>
PARALLEL 2	ROBOTICS AND AUTONOMOUS SYSTEMS LOCATION: ROOM 1
15:30-16:00	Modular Assembly: An Efficient Approach for Creation and Maintenance of Persistent Space Assets <i>Bill Doggett, Senior Researcher, Langley Research Center, NASA</i>
16:00-16:30	Development of deployable antennas <i>Juan Reveles, CTO & co-founder, Oxford Space Systems</i>
16:30-17:00	Role of the Disruptive Innovation Centre for Space in developing & testing new manufacturing solutions for space <i>Mike Curtis-Rouse, Manufacturing Technology Lead, Satellite Applications Catapult</i>
PARALLEL 3	SURFACE ENGINEERING AND HIGH PERFORMANCE COATINGS LOCATION: ROOM 2
15:30-16:00	Photonics in space <i>David N Payne, Director of the Optoelectronics Research Centre, University of Southampton</i>
16:00-16:30	Corrosion resistance performance on laser treated surfaces for space applications <i>Zhu Liu, Senior Lecturer, The University of Manchester</i>
16:30-17:00	Advances in Surface Engineering Technologies - Prospect and Opportunities <i>Tian Long See, Senior Research Engineer, MTC</i>
	Refreshments / Networking / Exhibition
17:00-18:30	Optional Tours of MTC / ARC
	Design for Space Workshop (Main Lecture Theatre)
18:30-19:00	Drinks Reception
19:00-22:30	Conference Dinner

DAY TWO

8:30-9:00	Registration / Tea & Coffee / Breakfast
9:00-9:10	Welcome and plan for the day <i>David Wimpenny, Chief Technologist, MTC</i>
9:10-9:40	Advanced Manufacturing: An extraordinary technology ecosystem <i>John Vickers, Principle Technologist, Space Technology Mission Directorate, NASA</i>
9:40-10:00	How will Industry 4.0 change the Space sector and deliver novel value propositions? <i>Maria Kalama Innovations Lead, Satellite Communications, Innovate UK</i>
10:00-11:30	Parallel Technical Sessions
PARALLEL 1	ADDITIVE MANUFACTURING LOCATION: MAIN LECTURE THEATRE
10:00-10:30	Optimising Rocket Engine efficiencies through high conductivity additive manufacturing alloys <i>Sam Rodgers, Applications Engineer, 3TRPD</i>
10:30-11:00	Impact of AM feed-stock quality on the production of space components <i>Jason Dawes, Technology Manager, Materials Engineering, MTC</i>
11:00-11:30	NASA's Efforts for the development of Standards for Additive Manufactured components <i>Rick Russell, NASA Technical Fellow for Materials, NASA</i>
PARALLEL 2	ADVANCED JOINING LOCATION: ROOM 1
10:00-10:30	Development of Linear Friction Welding to Add External Features to Spacecraft and Launchers Systems <i>Joao Gandra, Principal Project Leader, Friction & Forge Processes, TWI</i>
10:30-11:00	Friction Stir Welding of Low Cost Titanium Propellant Tank <i>Steve Dodds, Section Manager, Friction & Forge Processes, TWI</i>
11:00-11:30	UltraWeld: A new means to weld together glass and metal <i>Richard M Carter, Research Fellow, Institute of Photonics and Quantum Sciences, Heriot-Watt University</i>
PARALLEL 3	SURFACE ENGINEERING AND HIGH PERFORMANCE COATINGS LOCATION: ROOM 2
10:00-10:30	Shining light on Temperature Memory Coatings – a novel way of measuring temperature <i>Jorg Feist, Managing Director, Sensor Coating Systems</i>
10:30-11:00	Lotus leaf effect on aircraft <i>Tim Kunze, Team Leader, Fraunhofer IWS</i>
11:00-11:30	Plasma polishing for complex AM component for space application <i>Laurent Espitalier, Technical Director, Wallwork</i>

DAY TWO

11:30-13:00	Lunch / Networking / Exhibition
13:00-14:00	Parallel Technical Sessions
PARALLEL 1	ADDITIVE MANUFACTURING LOCATION: MAIN LECTURE THEATRE
13:00-13:30	AM in Space <i>Raymond 'Corky' Clinton, Deputy Manager of the Science and Mission Systems Office, NASA</i>
13:30-14:00	Surface Engineering of space parts made by additive manufacturing <i>Antero Jokinen, Senior Research Scientist, VTT</i>
PARALLEL 2	ADVANCED JOINING LOCATION: ROOM 1
13:00-13:30	Laser Welding for Space Applications <i>Nicholas Blundell, Senior Research Engineer, Fusion Welding, MTC</i>
13:30-14:00	Pushing the limits of component performance in nuclear fusion and space <i>Heather Lewtas, Group Leader at Culham Centre for Fusion Energy, UKAEA</i>
PARALLEL 3	SURFACE ENGINEERING AND HIGH PERFORMANCE COATINGS LOCATION: ROOM 2
13:00-13:30	New thermal coatings for spacecraft and satellites using metamaterials <i>Otto Muskens, School of Physics and Astronomy, Faculty Member, University of Southampton</i>
13:30-14:00	Development of electrically-conducting, corrosion resistant coatings for aluminium alloys in Space <i>Gary Critchlow, Head of Department of Materials, Loughborough University</i>
14:00-14:25	A bright future for the UKs space sector <i>Tim Just, Head of Space, Innovate UK</i>
14:25-14:30	Closing words <i>Steve Statham, Associate Director, Emerging Markets, MTC</i>
14:30-15:30	Optional Tours of MTC / ARC



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