

Hub Open Day Programme – 6 September 2023

Marshall Arena, Stadium Way West, Bletchley, Milton Keynes, MK1 1ST (Sat Nav)

0930 **Arrival and Registration**

Session 1: Chair Prof Nick Warrior, Hub Director

1000 **Welcome and Hub Overview**

Prof Nick Warrior, University of Nottingham

1010 **Keynote lecture: EVTOL – Vertical Aerospace VX4. Challenges for a Composite Airframe**

Professor Ian Lane, Vertical Aerospace Ltd

1050 **Technology Pull Through Programme**

Dr Matt Scott, National Composites Centre

1100 **Break and Poster Session**

Session 2: Synergy Projects, Chair Prof Mike Hinton, Hub Advisory Board Chair

1120 **Thermoplastic in Situ Polymerisation (TPIP) and Double Diaphragm Forming**

Dr Andrew Parsons, University of Nottingham; Dr Edward McCarthy, University of Edinburgh

1135 **Energy Efficient Composite Tooling with integrated self-regulating Heating and Curing Capabilities based on Recycled Composite Waste (ECOTOOL)**

Dr Han Zhang, Queen Mary University London

1150 **A Numerical Tool to aid Design-for-Manufacture of Injection Over-Moulded Composite Parts**

Dr Jonathan Belnoue, University of Bristol

1205 **Zero Waste Manufacture of Highly Optimised Composites with Hybrid Architectures**

Dr Connie Qian, University of Warwick

1220 **Lunch**

Session 3: Chair Dr Thomas Turner, Hub Deputy Director

1320 **Keynote lecture: Zero Carbon, Electrically Driven Hydrofoiling Boats: Composite Design and Biofouling Challenges**

Dr Emer McAleavy, Artemis Technologies

1400 **Multifunctional Composites**

Dr Sang Nguyen, Imperial College London

1420 **Optimise**

Prof Prasad Potluri, University of Manchester

1440 **Design Simulation Tools and Process Improvements for NCF Preforming**

Prof Michael Sutcliffe, University of Cambridge

1500 **Break and Poster Session** (last chance to submit your votes for the poster competition)

1520 **Resin Injection into Reinforcement with Uncertain Heterogeneous Properties (Active RTM)**

Dr Mikhail Matveev, University of Nottingham

1540 **Layer by Layer**

Dr Robin Hartley, University of Bristol

Session 4: Chair Dr Lee Harper, Hub Manager

1600 Quick Fire Presentations – Researchers/PhDs/EngDs (3 minutes max per presentation)

16:05 Ángela Lendínez Torres	How Does Breather Distribution Affect Drapability During DDF
16:08 James Mortimer	In-Situ Polymerisation of Thermoplastics (Reactive Resin Infusion in Double Flexible Tooling)
16:11 Yilong Li	Inter-Ply Interaction of Non-Crimp Fabrics during Multi-Ply Preforming
16:14 Andrew Parsons	Thermoplastic In-Situ Polymerisation (TPIP) and DDF for Moulding of Complex Parts at Scale
16:17 Antony Samy	Investigation of “Rejuvenation” Phenomenon in Resin Systems
16:20 Laura Pickard	NextCOMP: Human-Robot Collaborative Manufacture of Hierarchical Composites
16:23 Patrick Sullivan	Measuring Reclaimed Fibre Length Distributions
16:26 Guy Lawrence	Measurement of Mesoscale Inter-Ply Contact Area using μ -CT and Machine Learning
16:29 Michael Causon	Bayesian Inversion in Resin Transfer Moulding
16:32 Xun Wu	Thermoplastic Overmoulding: Understanding the Interface
16:35 George Street	The Influence of Laminate Thickness on CFRTP Intra-Ply Shear Behaviour
16:38 Jack Holyoak	High-Rate Production of Automotive Components using Sustainable Composite Prepregs

1645 Break and submission of votes for the Quick Fire Presentations

1700 Permeability Variability of Textile Fabrics for Liquid Moulding

Dr Yang Chen, Hub Innovation Fellow, University of Bath

1715 New Avenues in Manufacturing and Testing of Ceramic Matrix Composites

Dr Oriol Gavalda Diaz, Hub Transitional Fellow, University of Nottingham

1725 Closing Remarks and Prize Giving

Prof Nick Warrior

1730 Meeting Close

1900 Dinner – All delegates are invited to a dinner at the DoubleTree Hilton Hotel, Milton Keynes (**Note:** you must register to attend and dinner will be served at 20:00).