

Day One – Tuesday 2 July

- 9:00 Registration and Refreshments
- 9:30 Introduction and Welcome – **Tat-Hean Gan**, NSIRC Director
- 10:00 Keynote Speaker – **David Holmes**, Manufacturing Director, BAE Systems' Air Sector

	Lecture Room 1 Theme: Additive Manufacturing / Advancing Engineering Fundamentals	Lecture Room 2 Theme: Composites and Polymers
10:30	Madie Allen Predicting the microstructure of metal additively manufactured parts	Dimitrios Fakis Electromagnetic surface waves on fibre-reinforced composite substrates
10:50	Emre Akgun Effect of porosity on fatigue strength of SLM Ti6Al4V	Changi Yu Effect of insufficient homogenisation during the extrusion of polyethylene pipes on butt fusion joint integrity

11:10 *Break*

11:25	Xu Liu Effect of mean stress in variable amplitude fatigue loading on welds	Athanasios Pouchias Flow monitoring system for the resin transfer moulding process
11:50	Jessica Taylor The correlation between crack initiation and arrest behaviour	Faranak Bahrami Thermally assisted piercing; manufacture and properties of multiply-pierced composite

12:15 *Lunch*

- 13:00 Keynote Speaker – **Elizabeth Donnelly**, Chief Executive Officer, Women's Engineering Society

	Lecture Room 1 Theme: Inspection Technologies and Monitoring	Lecture Room 2 Theme: Standards and Maintenance Methodologies
13:30	Houman Nakhli Mahal Detection of defects in guided-wave inspection of pipelines	Habiba Lais Optimisation of the non-invasive ultrasonic fouling removal technique for submerged structures
13:55	Harendra Kumar Development of an Ultrasonic Technique Enabling Detection of Type IV Creep at Early Stage	Fernando Galvan Wave decomposition in a mooring chain to monitor cracks

14:20 *Break*

14:35	Zhiyao Li Advanced shearography for wind turbine blade inspection	Konstantinos Kouzoumis Effects of biaxiality on engineering critical assessments
14:55	Hadi Khalili Updating the distribution of uncertain parameters involved in the fatigue analysis	Domenic di Francesco Quantification of the value of inspecting for fatigue cracks

15:15 Poster Session

16:15 Close

Day Two – Wednesday 3 July

9:00	Registration and Refreshments	
9:20	Keynote Speaker – Alasdair Coates , Chief Executive Officer, Engineering Council	
	Lecture Room 1 Theme: Joining Technologies	Lecture Room 2 Theme: Structural Integrity and Performance of Additive Manufacturing
9:50	Karan Derekar Microstructural investigations into WAAM of aluminium	Kostas Georgilas Effect of post thermal treatments on L-PBF IN718 material
10:15	André Oliveira Joining dissimilar materials for future automotive structures	Cui Er Seow Wire + arc additively manufactured Inconel 718: effect of heat treatments
10:40	Chris Nyamayaro Underwater laser cutting	Dibakor Boruah Structural Integrity Assessment of Cold Sprayed Ti-6Al-4V
11:05	<i>Break</i>	
11:20	Pedro Santos Refill friction stir spot welding parameter optimisation for transport	Mehran Shahrirafar Characterisation of AISI 316L produced by laser powder bed fusion
11:40	Andrew Sandeman Plasma cathode electron beam for high-integrity processing	Gowtham Soundarapandiyam Effect of post thermal treatment on Ti6Al4V parts fabricated by EB-PBF
12:00	Mike Walker Development of high entropy alloys for cold spray additive manufacturing	Alexandre Sabard Effect of solution heat treatment of Al powder on cold spray deposition
12:25	<i>Lunch</i>	
	Lecture Room 1 Theme: Coatings	Lecture Room 2 Theme: Advanced Non-Destructive Testing
13:10	Angelo La Rosa Impact of silica particles as additives for novel materials	Tomas Každailis Development of non-destructive testing methods for on-line quality control of objects made by 3D printing
13:35	Rosa Griñón Cathodic protection of steel by TSA coatings in marine environments	Usama Javid Experimental evaluation of residual stresses using acoustic emission
14:00	Ana Antelava Development of durable super repellent coatings	Juvaria Syeda Image analysis for complex data in non-destructive testing
14:25	Networking	
15:00	Awards and Closing Words	
15:30	Awards Photos	