



Forum for Engineering Structural Integrity

THE 16TH INTERNATIONAL CONFERENCE ON ENGINEERING STRUCTURAL INTEGRITY ASSESSMENT

OCTOBER 6–8, 2021 (PM)

PROGRAMME

DAY 1: WEDNESDAY, OCTOBER 6, 2021

SESSION 1: NEW AND NOVEL METHODS

13:00	Welcome and Introduction	
13:15	What can ultrasonic arrays tell us about cracks?	Professor Bruce Drinkwater, UNIVERSITY OF BRISTOL, UK
13:45	Structural health monitoring in aerospace	Dr Zahra Sharif Khodaei, IMPERIAL COLLEGE LONDON, UK
14:15	Break	
14:30	3D-printing for construction at different scales	Professor Erik Schlangen, DELFT UNIVERSITY OF TECHNOLOGY, NETHERLANDS
15:00	The role of digital twins in structural integrity	Professor John Stairmand, JACOBS, UK
15:30	Further understanding of creep cavitation initiation using correlative microscopy	Dr Tomas Martin, UNIVERSITY OF BRISTOL, UK
16:00	Discussion	All
16:30	Close	

DAY 2: THURSDAY, OCTOBER 7, 2021

SESSION 2: CHALLENGES AND DEVELOPMENTS IN VARIOUS INDUSTRIES

13:00	Welcome	
13:05	Ensuring the integrity of endovascular stent graft systems	Professor David Nash, UNIVERSITY OF STRATHCLYDE, UK
13:35	Structural integrity and transport: the evolving challenges	Professor Roderick Smith, IMPERIAL COLLEGE LONDON, UK
14:05	Break	
14:20	Development of Nagra nuclear waste disposal canister, material selection, closure lid design and structural integrity	Dr Michael Roy/Dr Yin Jin Janin, TWI, UK
14:50	Structural integrity challenges for repurposing the UK's gas network for a hydrogen future	Mr Adam Bannister, HSE SCIENCE DIVISION, UK
15:20	ONR's regulatory engagements on advanced manufacturing from a structural integrity perspective	Ms Eleanor Crossley, ONR, UK
15:50	Discussion	All
16:20	Close	

DAY 3: FRIDAY, OCTOBER 8, 2021

SESSION 3: DEVELOPMENTS RELATING TO FATIGUE

13:00	Welcome	
13:05	Uniaxial rate-dependent ratchetting-fatigue interaction of polyamide 6: experiments and life prediction methods	Professor Guozheng Kang , SOUTHWEST JIAOTONG UNIVERSITY , CHINA
13:35	The management of corrosion fatigue in offshore wind support structures	Professor Feargal Brennan , UNIVERSITY OF STRATHCLYDE, UK
14:05	Break	
14:20	Very high cycle fatigue of welds and its implication to fatigue design	Dr Yanhui Zhang , TWI, UK
14:50	Orientation dependence of Ni-based superalloys in the very high cycle fatigue regime	Dr Alice Cervellon , ENSMA, FRANCE
15:20	Full-field imaging techniques for integrity assessment of composite structures	Professor Janice Dulieu-Barton , UNIVERSITY OF BRISTOL, UK
15:50	Discussion	All
16:20	Close	

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