



**ENGINEERING  
INTEGRITY SOCIETY**

# **Integrity of Structural Joints Subjected to Fatigue Loads**

**4 July 2019 | AMRC, Sheffield**



The aim of this seminar is to improve your understanding of integrity of structural joints subjected to fatigue loads and why joints are so important to your parts. Understanding structural performance can determine how many joints are required which will in turn affect your design, manufacturing facility costs, assembly cycle time and profits.

In this seminar you will gain an appreciation of all factors which affect the fatigue of joints from designing the physical tests through to CAE fatigue damage creation, which can then be used to design your assemblies. There will also be the opportunity to make contacts from across different industries to enable collaboration on improving the engineering of joints via future working group meetings.

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# PROGRAMME

- 0900 Registration & Refreshments
- 0920 Introduction to the EIS - TBC
- 0930 Overview of Joining Technologies - Emma Griffiths, Jaguar Land Rover
- 0945 Manufacturing Simulation of Self Pierce Rivet Joints - Paul Briskham, AtlasCopco
- 1015 Fatigue Life of Aluminium Spot Welding and Self Pierce Rivet Joints - Andrew Blows, Jaguar Land Rover
- 1030 Refreshments & Exhibition
- 1045 Bolted Joints - Tom Cosgrove, BCSA Ltd
- 1115 Investigation into the Dynamics of Bolted Joints - Hugh Goyder, Cranfield University
- 1145 Fatigue and Damage Tolerance Analysis of Bolted Joints - Ben Ogborne, Airbus
- 1215 Lunch and Exhibition
- 1305 The Fatigue Performance of Welded Joints - Simon Smith, Transforming Stress Ltd
- 1335 Mean Stress Effect for Welds under Fatigue Loading - Zongjin Lu, Jaguar Land Rover
- 1405 Fatigue Simulation of Welds Using the Total-Life Method - Andrew Halfpenny, HBM Prencia
- 1435 Refreshments & Exhibition
- 1450 Fatigue Testing 2K Structural Adhesives: Facilitating Design Change and the use of Multi-Material Bonding for Lightweighting Structures - Antonio Pagliuca, 3M
- 1520 Fracture of Spot Welds in Advanced High Strength Steels - Hassan Ghadbeigi, University of Sheffield
- 1550 Process of Creating a Fatigue Damage Model to enable Computer Aided Engineering (CAE) Fatigue Life Prediction to Reduce Costs - Andrew Blows, Jaguar Land Rover
- 1620 Closing Comments

# BOOKING FORM

	EIS Member	Non EIS Member
Delegate	£100+VAT	£125+VAT
Student/Apprentice	£25+VAT	
	UK	Rest of the World
Personal Membership of the EIS	£25 per year	£30 per year
I enclose a cheque for £_____ made payable to the Engineering Integrity Society. Payment can also be made by BACS.		
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Any Special Dietary Requirements		
Please tick this box if you are happy to have future contact with the EIS. We limit the emails we send and will never pass your details to any other organisation. You are able to unsubscribe at any time. Our privacy statement can be viewed on our website. <input type="checkbox"/>		
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Please return completed forms to the following address:  
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The Engineering Integrity Society is an independent not-for-profit organisation which aims to inspire all engineers, both experienced and newly qualified, across a broad spectrum of technologies. The Society is committed to promoting events and publications, providing a forum for engineers to discuss present industrial needs, new technologies and to stimulate both company and personal development.

The annual subscription rates are £25 for UK residents and £30 for non-UK residents. Upon joining the Society you will also have the additional advantages of preferential attendance rates at EIS events, together with selected events held by some of the associated organisations. In addition you will have access to CDs containing archived copies of EIS presentations.

The Engineering Integrity Society is pleased to acknowledge the support of the following organisations:

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