The Engineering Integrity Society

# The Challenges of Structural Integrity at High Temperature

## Phoenix Materials Testing Ltd, Brierley Hill
## 4 October 2018

This seminar is aimed at engineers with hands on involvement in the world of high temperature applications, either for the design, or validation and testing, of materials, components and models. This seminar will stimulate discussion and the sharing of information, techniques and challenges across a range of sectors.

## Programme

Abstracts are available on the EIS website.

09.00 Registration, Tea and Coffee

09.20 Introduction to the EIS - Robert Cawte (EIS)

09.30 **Challenges involved in implementing and maintaining high temperature control accuracy during complex mechanical testing - Jonathan Jones, Swansea University**

10.00 **Controlled Higher Resolution Non-Uniform Heating and Applications - Akram Wahab, Phoenix Materials Testing Ltd**

10.30 Tea, Coffee and Exhibition

11.00 **Stress cracking and fatigue testing of nickel based superalloys in a hot corrosion environment - Laurie Brooking, Cranfield University**

11.30 **High strength steels at elevated temperature** - Dorothy Winful, TWI

12.00 Lunch, Exhibition and Lab Tour
A tour of the Phoenix Materials Testing laboratory which specialises in testing to support product research and development, including a range of high temperature and environmental facilities.

13.30 **Determining Damage Evolution using Advanced Monitoring Techniques at High Temperatures (>800°C) - Christopher Newton, Swansea University**

14.00 **Creep Fatigue Interaction for Nuclear Fusion - Mike Gorley, UK Atomic Energy Authority**

14.30 **In situ synchrotron measurements of stress relaxation in Titanium alloys - Yi Xiong, Oxford University**

15.00 Tea and Coffee

15.15 **In-situ creep fatigue testing at the diffraction facilities - Abdullah Al Mamun, University of Bristol**

15.45 Q&A Forum and 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. | | |
| Name: | | |
| Company: | | |
| Address: | | |
| Telephone: | | |
| Email: | | |
| 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. ⬡ | | |
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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.

FESI is the membership organisation for engineering structural integrity (ESI) in the UK. FESI disseminates the latest advances in ESI, promotes the exchange of ESI technologies and knowledge between industrial, regulatory, academic, and professional organisations, encourages best practice in ESI, and provides a practical resource for anyone working in ESI.

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

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