

10th Engineering Integrity Society

International Conference on Durability & Fatigue

Fatigue 2027









Fatigue 2027



FOREWORD

The Fatigue 2027 conference will bring the international fatigue and durability community together to share knowledge and understand the challenges in using sophisticated engineering simulation and modelling tools to complement sound test programmes and develop reliable and cost effective products for modern usage.

As engineering modelling and simulation tools become ever more powerful and sophisticated there still remains the challenge of correlating the virtual world with both idealised laboratory testing and the wide, and potentially unexpected, range of service conditions experienced by machines and structures. These challenges are compounded by the advent of new materials, new ways of manufacturing components, new applications, characterisation and new test and measurement techniques.

We will seek to explore not only the latest developments in engineering modelling and simulation, advances in test and measurement techniques, characterisation, innovations in manufacturing, and developments in materials science, but also the complex interrelations between all these topics that give rise to improvements in fatigue performance, durability and structural integrity.

The 3 day conference builds on the long-established philosophy of the Engineering Integrity Society to provide a forum for practising engineers and researchers to exchange ideas and experiences in all aspects of structural integrity. Contributions will be welcome from all disciplines and from academics, industry and research organisations. As well as giving practitioners an opportunity to keep up-to-date in the latest developments in durability of materials and structural analysis techniques, the conference will provide an excellent forum for researchers to promote their work and enhance its transfer to, and impact on, industrial applications.

VENUE

The conference will take place at Jesus College, Cambridge, UK. Set in 24 acres of gardens in the heart of Cambridge, it provides a beautiful setting for events in a purpose-built conference centre. Established in 1496 on the site of the 12th Century Benedictine nunnery of



St Mary and St Radegund it is protected from the noise and bustle of the town. The College has many notable buildings dating as far back as the 12th Century and the spectacular Hall with its vaulted ceilings provides a unique dining venue for our conference dinner.

CALL FOR PAPERS

We are interested in high quality submissions in all aspects of the fatigue and durability of engineering materials, machines and structures. In particular:

- Innovations in experimental techniques for fatigue characterisation
- Developments in modelling fatigue including:
 - multiscscale and mutltiphysics
 - neural networks and machine learning
 - stochastic methods
- Durability of advanced materials
- Integrity of recycled and reprocessed materials
- Joining technologies: bolts, welds, adhesives, joining dissimilar materials, correlation of testing and in-service durability
- Surface engineering and durability
- Innovations in digital imaging
- Fatigue in adverse environments, such as high temperatures, corrosion and/or embrittling species

Since the world of academic publishing is evolving so quickly, we are exploring some new exciting opportunities to disseminate your work. More details will be available on our website.

PETER WATSON PRIZE

The Peter Watson Prize will be awarded to the best presentation given by a young engineer.

Entrants should meet at least one of the following criteria:

- A person working in industry below the age of 28 on submission (potential entrants please provide date of birth with abstract)
- A post-doctoral worker with a maximum of 3 years'

- experience since completing a PhD/EngD
- Any currently registered undergraduate or postgraduate student

SUBMISSION OF PAPERS

You are kindly requested to submit an abstract (one A4 page maximum, only in pdf format, size smaller than 1MB) to the Conference Organiser. Please see the website for abstract template.

The abstract should contain:

- Title of the paper
- Authors (full address of the company/institution, email)
- Statement of contents and main points
- Keywords (up to 5)

The abstract should clearly emphasise the main scientific, technical, economic or practical aspects of the paper.

Authors should specify whether they wish to make an oral or poster presentation.

KEY DEADLINES

Submission of abstract - 27 February 2026 Acceptance of abstract - 1 April 2026

EXHIBITION

An exhibition of material testing equipment and other fatigue related services is planned. Interested companies should contact the Conference Organiser.











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