

Invitation and Preliminary Program

JCSS
Joint Committee
on Structural Safety



CROSS
COLLABORATIVE REPORTING
FOR SAFER STRUCTURES

Managing Structural Safety

Joint Workshop of the JCSS and CROSS

Hosted by:

The Institution of Structural Engineers (IStructE)

20.-21. May 2025, at IStructE London, UK



Scope of the Workshop

Introduction

Society expects buildings, bridges, and other civil engineering structures to possess an adequate level of safety for their intended service life. Structural safety is managed through codes of practice and quality assurance regimes.

Structural safety is affected by numerous uncertainties related to material and geometrical properties, system behavior, load and degradation effects, among others. The need to systematically quantify and correctly consider such uncertainties in reliability assessments of structures was one of the primary reasons for establishing the Joint Committee on Structural Safety (JCSS). Since its formation, the JCSS has been instrumental in bringing quantitative reliability-based approaches to ensuring safety through the provisions in structural design codes of practice.

On the other hand, the actual performance of structures during construction and service is strongly influenced by human factors and inadequate understanding. In 1976 the Standing Committee on Structural Safety was formed in the UK, expanding in 2005 to create a system of confidential reporting of structural safety concerns (CROSS). This now extensive database of failures and near-misses forms an invaluable basis for assessing the influence of human and other factors on actual structural safety.

Workshop Details

The workshop on **Managing Structural Safety**, co-organized by the **JCSS** and **CROSS**, and hosted by the **Institution of Structural Engineers (IStructE)**, aims to bring together practical experience and scientific insights so that both quantitative and qualitative approaches to the management of structural safety can be brought together for overall improvements.

Goal: The workshop will produce a White Paper outlining future directions to close the gap between the quantitative and qualitative approaches to managing structural safety.

Topics of the Workshop

Experts will present **invited contributions** focused on the following topics:

- The role of human error in structural failures
- The different roles of design standards and quality control processes
- Case studies of failures caused by design, construction, and maintenance errors
- Methods for identifying and mitigating human errors in structural engineering
- Decision-making under uncertainty in structural safety
- Improving quality control measures and resilience against human-induced failures
- Closing the gap between quantitative and qualitative approaches

Format

The workshop will consist exclusively of invited contributions from experts in structural safety, human error analysis, and quality control. Both **in-person** and **online** participation will be supported. The number of in-person participants is limited to 50.

Registration

We kindly request all participants to register. Please indicate your participation preferences (in person, online, or unable to attend) [here](#).

Registration Deadline: Please submit your response by **31.03.2025**.

Preliminary Schedule and Program

Tuesday, 20.5.2025

12.30	Arrival and light lunch
13.00	Welcome and overview; Opening Address; Workshop Objectives and Expected Outcomes
14.00	Session: Practical Experience with Quality Control and Human Error; Overview of Practical Cases; Lessons Learned; Mitigation Strategies
15.00	Refreshments
15.30	Scientific Insights on Reliability and Failure Prevention; Theoretical Perspectives; Case Studies; Discussion of Challenges
16.30	Workshop Discussion in Groups; Identification of Key Issues; Possible Solutions
17.30	Presentation of Preliminary Outcomes
18.45	End of Day 1
20.00	Dinner

Wednesday, 21.5.2025

09.00	Arrival and Coffee
09.15	Session: Quality Control of Design & Construction; Statutory Approaches; Emerging Best Practices
11.00	Light Lunch
11.30	Wrap-Up and Conclusion; Summary of Key Takeaways; Next Steps
13.20	Closure
13.30	End of the Workshop

Technical and Organization Committee

- **Colin Caprani**, Monash University, Australia
- **Maria Giuseppina Limongelli**, Politecnico Milano, Italy
- **Michael H. Faber**, Aalborg University, Denmark
- **Jochen Köhler**, Norwegian University of Science and Technology, Trondheim, Norway

Note that the workshop will precede a regular JCSS meeting to be held on 21 May (afternoon) and 22 May (all day).

Venue

The Institution of Structural Engineers
47-58 Bastwick Street
London EC1V 3PS
Tel: +44 (0)207 235 4535

Web: www.istructe.org/bastwick-street/

How to get to IStructE HQ

Train

London is easily accessible from the UK and Europe by a pleasant train journey. The [Eurostar](#) train connects with many cities, which in turn are well-connected through Europe. It arrives in London [St Pancras International](#) Train Station. From here to the [Institution of Structural Engineers](#):

- **Taxi**: 15 mins about GBP25;
- **Train**: Thameslink to Farringdon Station, about 20 mins, then 15 min walk;
- **Underground**: Multiple lines to either Farringdon, Barbican, or Old Street stops; walk about 10 mins.

Air

London has several main airports that are internationally connected:

- **Heathrow**:
 - Heathrow Express: About 15 mins and 30GBP to Paddington Station; then about 20 mins taxi or Underground.
 - Underground: About 50 mins on the Elizabeth Line to Farringdon Station.

- **Gatwick:**
 - Thameslink: About 55 mins to Farringdon Station;
 - Gatwick Express: to Victoria Station; change to Circle line to Farringdon; about 75 mins total;
- **London City:** take Docklands Light Rail to Bank Station, then change to Northern Line for Old St Station.

Hotels

There is a wide choice of hotels within walking distance of varying standards:

- [Hotel nhow](#) (highly recommended): Enjoy the full London experience with spacious and comfortable British themed rooms. Medium cost. 10 min. walk.
- [Easyhotel London Shoreditch](#): Budget hotel; 5 min walk.
- [YOTEL London City](#): Intriguing design with very small rooms. Reasonable cost.
- [The Zetter Clerkenwell](#): upmarket hotel.
- [Marrable's Farringdon Hotel](#): mid-market hotel.