



Engineering Integrity Society

CALL FOR PRESENTATIONS

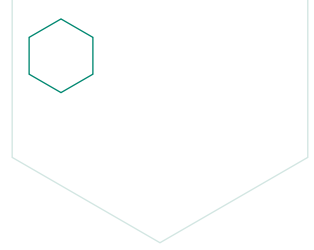
EIS Seminar Series – Collection, Analysis, Simulation

Date and Venue TBC

The seminar will be held over two days and examines the intricacies of data collection, analysis, and simulation in the field of sensor technology and instrumentation. This comprehensive seminar series will cover the fundamental aspects and participants will gain insights into the hidden complexities of sensor systems and data collection, comparing past and present technologies as well as the pitfalls to avoid.

Submission deadline: 1 October 2023

info@e-i-s.org.uk | www.e-i-s.org.uk | 01623 884225



CALL FOR PRESENTATIONS

We welcome contributions on the following topics:

What do you get?

Basics of collection: sensor types, sensor location, sensor specification, pre-processing, signal amplification, signal filtering, sensor securement methods, data output types
Other aspects: calibrations swallowed up by TEDS, automatic filters and issues they can cause, what is inside transducers? (strain gauges, piezoelectronics)

How do you get it?

Instrumenting and DAQ systems: past vs present, how they work and what they do, ruggedisation and IP ratings, cabling, sensor securement (strain gauge and accelerometer installation), sampling rates
Testing: DoE, control of variables, repeatability and reproducibility, spotting errors, data vs reality, how do you know the answer you have is correct?

What do you do with it?

Data Processing: spike removal, drift removal, metadata embedding, what is done to it that we don't realise? Resampling, hidden metadata problems
Data Analysis: frequency domain, fatigue and rainflow, data representation, histograms, waterfalls, trends, inferring answers

What do they do with it?

Simulation Correlation
Machine Learning: automated data offload, AI
Efficiency Gains: models ran vs tests complete, topology optimisation, modal post correlation

YOUR SUBMISSION

Please provide an abstract for your technical presentation including:

- Your full name, job title, organisation and contact details
- The presentation title

Abstracts should be sent to info@e-i-s.org.uk. Abstract Deadline: 1 October 2023

For more information contact info@e-i-s.org.uk