

The Engineering Integrity Society

The Engineering Integrity Society is a professional body formed in 1985. The objectives are to stimulate the exchange of ideas and information between engineers and technologists whose interest lie in designing, developing or manufacturing products which must achieve high standards of integrity.

The society comprises of three groups: Durability & Fatigue, Simulation Test & Measurement and Sound & Vibration Product Perception. The society groups have made a recognisable and significant contribution to advancing Engineering Science. Over the last twenty-seven years the EIS has established itself as a professional body dedicated to the engineering integrity of manufactured products.

The ENGINEERING INTEGRITY SOCIETY is pleased to acknowledge the support of the following organisations:

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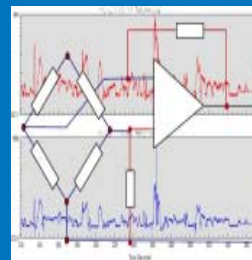


The Engineering Integrity Society

Data Acquisition: Principles & Practice

*to be held at
National Instruments, Newbury*

Wednesday 17 June 2009



The Engineering Integrity Society
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Data Acquisition: Principles & Practice

National Instruments, Newbury

The course is aimed at engineers and technicians interested in data collection for design validation or test simulation. The course is non-mathematical and seeks to provide a sound technical grounding in the principles of data gathering.

Trainer: Mr Geoff Rowlands, Product Life Associates

Course Content

08:30 - 9:00 **Registration & Coffee**

9.00 **Introduction:**
 Designing the data acquisition "system"
 Why do we collect data: Who needs it?
 Defining the test.

Transducers:
 Strain Gauge: What and how does it work?
 Wheatstone bridge.
 Accelerometer
 Temperature measurement
 CAN-Bus
 Wheel Force Transducers

11.30 - 11.45 **Coffee**

11.45 **Amplification and Recording:**
 Basic Amplifier Types
 Calibration
 Sample Rates, Nyquist & Aliasing
 Filters

12.30 - 13:30 **Lunch & Discussion**

13.30 **Setting Up Data Collection:**
 How much data to collect
 Pre and Post Test Checks
 Managing the Documentation.

Data Checking and Validation:
 What to look for
 Removing Spikes, Drift & Offset
 Noise in signals
 Statistical analysis

15.00 - 15.15 **Coffee**

15.15 **Data Storage & Archiving**
 Managing data storage
 Database requirements

17.00 **Close**

Registration Form (BLOCK CAPITALS PLEASE)

Data Acquisition: Principles & Practice

Wednesday June 17 2009, National Instruments, Newbury *

TARIFF	EIS/	Non Member
Delegate	£200+VAT	£250+VAT
Students	£50+VAT	£50+VAT
Leaflet Insert in the delegate pack	£40+VAT	£50+VAT
Sponsorship of Event	£350+VAT	£350+VAT
Yearly Personal membership of EIS	£25 (UK)	£30(Overseas)
Life Membership	£200	

Surname Title

First Name

Organisation/Company

Mailing Address

Telephone Facsimile

E-mail

Invoice Address

I enclose a cheque for £payable to The Engineering Integrity Society
 Please invoice me using purchase order number

I do not wish to receive future EIS mailings I require a vegetarian meal

I require a certificate of attendance (attendance could count towards your continued professional development (CPD))

RESERVATIONS TO: **Lisa Mansfield, Engineering Integrity Society**
18 Oak Close, Bedworth, Warwickshire, CV12 9AJ

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Email: lmansfield@e-i-s.org.uk

* A map to the venue can be found at http://www.ni.com/pdf/misc/us/ni_uk_map.pdf