



**The Engineering Integrity Society**

**Developments in Measurement &  
Analysis Techniques for Automotive  
NVH**

**MIRA, Nuneaton**

**Tuesday 30 June 2015**



Over the last decade, the techniques available for assessment and development of vehicle sound quality and NVH have undergone huge advances. Many of the latest measurement and analysis methodologies will be reviewed during this one-day event at MIRA. The event is aimed at engineers working to improve the NVH performance within automotive applications.



## Programme

- 9.00am Registration, Tea and Coffee
- 9.30am Introduction - John Wilkinson
- 9.40am Three dimensional visualization of vehicle exterior and interior noise based upon a scanning measurement technique utilizing particle velocity sensors - Marcin Korbasiewicz, Microflown
- 10.10am Vehicle Integration of 3 Cylinder Engines for NVH - Mark Burnett, MIRA
- 10.40am Tea and Coffee
- 11.00am Characteristics and calibration of a pressure sensor system for measuring static and dynamic pressure distributions between the human body and a seat - Chi Liu, University of Southampton
- 11.30am Optimisation of NVH on the engine codename Panther by gear load/noise measurements on the firing engine, supported by simulation work, optimisation of transmission error and accelerated life testing of timing train - Jarek Rosinski, Transmission Dynamics
- 12.00pm MIRA presentations - Overview of MIRA Technology Park - Terry Spall, Commercial Director, MIRA Technology Park  
The National Skills Training Centre project - Lisa Rowles, Senior Manager, MIRA Academy
- 12.50pm Lunch and Exhibition
- 1.50pm Rotating Workshop Sessions - delegates will be divided into three groups to take part in all three workshops.
1. An overview of the development of techniques for Noise Source Identification on practical noise sources - Keith Vickers, Briel & Kjaer
  2. Workshop/demonstration on Experimental Modal Analysis - Martin Cockrill, ASDEC
  3. The Use Of Model Based Systems Engineering Tools For NVH Development - Siemens Simulation & Test - Andrew McQueen
- 4.00pm Q&A Session  
Open forum debate on issues raised
- 4.30pm Closing Comments

## Booking Form

	EIS Member	Non EIS Member
Delegate	£100+VAT	£140+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:		

Please return completed forms to the following address:

Engineering Integrity Society, 17 Harrier Close, Cottesmore, Rutland, LE15 7BT, UK

Telephone: +44(0)1572 811315

Email: [info@e-i-s.org.uk](mailto:info@e-i-s.org.uk)

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.

### **About MIRA**

MIRA is a world-class engineering consultancy, with a global reputation for innovation, testing and design. With 70 years of rich engineering heritage, MIRA host over 650 industry experts, 95km of specialised proving ground and over 35 major test facilities. MIRA is a global leader in safety development, and our services range from individual product tests, to turnkey multi-vehicle design, development and built programmes.

Our expert consultants also deliver mentoring support to engineers of the future through the MIRA Academy. Launched in 2012, the Academy equips graduates with the specialist Automotive, Electrical, Civil, Control and Software Engineering skills they need for careers in the transport sector.

MIRA is also home to an 850 acre Technology Park. Recognised by the UK Government as an existing Centre of Excellence with significant growth potential, MIRA Technology Park was awarded Enterprise Zone status in 2011, which means significant taxation and infrastructure benefits are available for tenants. The £300M development has been designed to offer a range of attractive options for organisations looking to establish a European R&D presence where they will have direct access to the UK's most comprehensive suite of transport sector R&D resources and facilities within a highly secure and strategically located campus.

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

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