

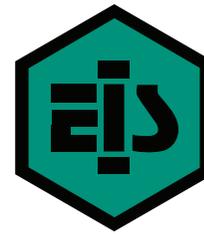
## The Engineering Integrity Society

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 archive CDs containing copies of EIS presentations.

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

AC Soft	LMS UK	Sensors UK
Bruel & Kjaer	Millbrook Proving Ground	Servotest
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Datron Technologies	Moog	TechniMeasure
GOM	Mueller BBM	Tiab
HBM	National Instruments	TRaC Global
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Kemo	Polytec	Yokogawa
Kistler Instruments	Rutherford Appleton Laboratory	Zwick
MTS Systems	Safe Technology	



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## Hydraulics in Testing

**Wednesday 25 September 2013**  
**Star Hydraulics, Tewkesbury**

A one day event is being held at Star Hydraulics, Tewkesbury that will be of interest to all levels of engineers who are involved in the design, use or maintenance of servo-hydraulic testing systems.



In the morning session the main elements of a servo-hydraulic system will be reviewed including high pressure pumps, oil filters, oil coolers, high pressure oil delivery systems, hydraulic actuators and servo valves. The importance of maintaining cleanliness in an oil system will be discussed, including a description of oil filtration systems, the need for oil filtration and best practice in the maintenance of oil systems.

The importance and process involved of specifying the correct servo-hydraulic actuator for a specific test, both in terms of performance and energy consumption, will be reviewed including the determination of the mean and peak oil flow requirements and servo valve specification.

Lunch will be provided after which there will be a tour of the servo-valve manufacturing facility.

After the tour there will be a presentation describing servo-hydraulic actuator control systems, including adaptive control systems used for real-time simulation and gain control configuration. The importance and process involved in setting the actuator control feedback system for optimum response will be outlined.

At the end of the presentations there will be a forum, comprising a panel of experts, where there will be the opportunity for attendees to raise questions on any aspects of the subjects covered during the day, or to raise questions in general about servo-hydraulic test systems for advice or that require a solution.

### Programme

<b>10am</b>	Arrival and Coffee
<b>10 - 11am</b>	Overview presentation N W Thornton, Engineering Consultant

<b>11-11.45am</b>	Oil Filtration - Barry Johnson, Star Hydraulics
<b>11.45-12.30pm</b>	Actuator Performance and Oil Flow Requirements N W Thornton, Engineering Consultant
<b>12.30-1pm</b>	Lunch
<b>1-1.45pm</b>	Tour of a Servo Valve Manufacturing Facility
<b>2-2.45pm</b>	Actuator Control and Simulation Prof Anton Raath - CaTs3
<b>2.45-3.30pm</b>	Forum and Closing Remarks

### Registration Form:

	EIS Member	Non Member
<b>Delegate</b>	<b>£50+VAT</b>	<b>£60+VAT</b>
<b>Students</b>	<b>£25+VAT</b>	
<b>Personal membership of EIS - £25 (UK) £30 (Overseas)</b>		
<b>I enclose a cheque for £ .....</b>		
<b>made payable to The Engineering Integrity Society</b>		
<b>Name:</b>		
<b>Company:</b>		
<b>Address:</b>		
<b>Email:</b>		
<b>Telephone:</b>		

Please return completed forms to the following address:  
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