

Special Interest Group Meeting: Structured and Freeform Surfaces- 24th-25th Feb 09, Apex City Hotel, Edinburgh, UK

Technical Programme

Tuesday 24 th Feb 2009	Wednesday 25 th Feb 2009
<p>13.30 Coach leaves from Apex City Hotel for tour of Scottish Manufacturing Institute (SMI)</p> <p>16.00 Coffee on arrival</p> <p>16.30 Welcome- euspen Vice President/CEO</p> <p>16.35 Opening address – Prof. Richard Leach</p> <p>“Traceability Issues When Measuring Three-dimensional Structured Surfaces”</p> <p>17.00 Session A: Applications of Structured Surfaces</p> <p>19.00 Finish</p> <p>20.00 Dinner at the Heights Restaurant</p>	<p>10.00 Coffee on arrival</p> <p>10.15 Session B: Surface Engineering and Measurement</p> <p>12:45 -13.45 Lunch</p> <p>14.15 Session C: Manufacturing Methods</p> <p>Close 16.30</p>

Tuesday 24th Feb 2009

- 16:00 Coffee on arrival
- 16:30 **Welcome-** euspen Vice President/CEO
- 16:35 **Opening address** – Prof. Richard Leach
- “Traceability Issues When Measuring Three-dimensional Structured Surfaces”**
- Session A: Applications of Structured Surfaces**
- 17:00 **OA.1** – Manufacturing and Replication Technologies for Structured Surfaces in Tribological Applications
A. Schubert, J. Edelmann
Fraunhofer Institute for Machine Tools and Forming Technology IWU, Chemnitz, DE
- 17:30 **OA.2** – An Integrated System on the Design, Ultra Precision Machining and Measurement of Free-form Optical Components.
W.B. Lee, C.F. Cheung, S. To and L.B. Kong
Advanced Optics Manufacturing Centre, Hong Kong Polytechnic University. Hong Kong.
- 18:00 **OA.3** – A Novel Focussed Ion Beam Directed Route for the Local Synthesis of Nanopattern at Room Temperature
A. Lugstein *et al*
Institute for Solid State Electronics
Vienna University of Technology
- 18:30 **OA.4** - Surface Functionalization by Means of Cutting.
B. Denkena, J. Kästner
Institute of Production Engineering and Machine Tools, Leibniz Universität Hannover, Germany

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Wednesday 25th Feb 2009:

10:00 **Coffee** on arrival

Session B: Surface Engineering and Measurement

10:15 **OB.1** – Development of a Surface Intrinsic Feature Based Method for Generic Form Characterisation of Ultra-precision Freeform Surfaces.
C.F. Cheung, W.B. Lee, L.B. Kong and S. To
Advanced Optics Manufacturing Centre, Hong Kong Polytechnic University. Hong Kong.

10:45 **OB.2** – Measures of a Structure in a Surface
A.B. Forbes *et al*
National Physical Laboratory, UK

11:15 **OB.3** – Freeform Optical Surface Measurements with the NANOMEFOS non-contact Measurement Machine
R. Henselmans *et al*
TNO Science & Industry, NL
Technical University of Eindhoven, NL
Nmi VSL, Delft, NL

11:45 **OB.4** – Metrology for Structured Surfaces
L. Blunt *et al*
University of Huddersfield, UK

12:15 **OB.5** – Latest Developments in Measuring Complex Parts on Nanometre Level
R.L. Donker, I. Widdershoven, H.A.M. Spaan
IBS Precision Engineering

12.45 **Lunch**

13:45 **OB.6** – A Comparison of Optical Sensing Methods for the High Precision 3D surface profile measurement of Grooved Surfaces
J.W. McBride, Z. Zhao, P.J. Boltryk
School of Engineering Science, University of Southampton, UK

Session C: Manufacturing Methods

14:15 **OC.1** – Diamond Micro Chiselling- Machining of Micro Optic Mirror Arrays
C. Flucke, E. Brinksmeier *et al*
Laboratory for Precision Machining, Bremen, DE.

14:45 **OC.2** – Slow Slide and Fast Tool Servo Machining of non axi-symmetric diffractive structures.
D.J. Robertson *et al*
Precision Optics Laboratory,
Durham University, UK

15.15 **Coffee**

15:30 **OC.3** – High Precision Drum Diamond Turning Capabilities at UPS² in North Wales
Arjen Mateboer, P. Shore *et al*
Ultra Precision & Structured Surfaces Integrated Knowledge Centre, St. Asaph, North Wales

16:00 **OC.4** – Accuracy of Freeform Manufacturing Processes
Guido Gubbels *et al*
TNO Science & Industry, Delft, NL

16:30 **Close**