

SCAD 2013

Day I - 20 February 2013

14h00 Opening SCAD 2013

D. Vanderschueren, UGent, Belgium

14h15 Plenary session

R. Maki, Volvo Construction Equipment, Sweden
Sustainable Heavy Equipment - Advanced Design of Structures and Tribosystems

15h00

Coffee Break

Fatigue in offshore conditions		Tribology of advanced materials & Challenges in wear monitoring	
15h30	R. Dimitriu, Heerema, the Netherlands <i>The Oil and Gas Industry Approach to Fatigue Philosophy Throughout the Twentieth and Twenty-first Century</i>		M. Kalin, University of Ljubljana, Slovenia <i>Importance of solid-liquid interface in tribology-based design</i>
16h00	R. Hojjati-Talemi, UGent, Belgium <i>XFEM vs FEM: Application to fretting fatigue 2D crack propagation</i>		X. Xu, Delft University of Technology, the Netherlands <i>A study on correlating microstructural features with abrasion resistance of a high strength low alloy steel</i>
16h15	J. Holzmann, TU Clausthal, Germany <i>A comparative study of fatigue testing machines with application to OCTG and their threaded connections</i>		J. Sukumaran, UGent, Belgium <i>Alkali treatment and its effect on tribological properties of naturally woven coconut sheath polyester composite</i>
16h30	P. Thibaux, Metal Structures Centre, Belgium <i>Stress concentration factors for welded tubular joints of offshore windmill support structures</i>		M. H. Staia, Universidad Central de Venezuela <i>Increase of the load carrying capacity of aluminum 2024-T3 by means of a NIP-CrC-DLC coating</i>
16h45	J. Sanz López, Fundación CIDAUT, Spain <i>Influence of cryogenic treatments in aluminium alloys</i>		Y. Perez Delgado, UGent, Belgium <i>Methodology for characterizing brake friction material on high temperatures</i>
17h00	E.S. Puchi-Cabrera, Université de Lille 1, France <i>Surface treatments for increasing fatigue strength of gear materials</i>		I. Barányi, Szent István University, Hungary <i>Characterisation of abrasive worn surfaces by surface microtopography parameters</i>
17h15	P.B. Haugsoen <i>Foundation structures for offshore wind turbines - Some experiences and future challenges</i>		V. Dalbert, INSA de Lyon, France <i>Tribo-electrochemical behavior of a ferritic stainless steel under applied potentials</i>
17h30			E. Kuhn, Hamburg University of Applied Sciences, Germany <i>Investigations of the structural degradation of lubricating greases from an energy point of view</i>
17h45			
19h00	Social Program		
20h00	Conference Dinner		

09h00 Defect assessment in fatigue

- 09h00 N. Gubelj, University of Maribor, Slovenia
Determination of calibration function for fatigue crack propagation by measurement of surface deformation
- 09h15 C.H.P. Wassink, Applus RTD, the Netherlands
New possibilities for weld assessment using inverse wavefield extrapolation
- 09h30 T. Kuwayama, Nippon Steel & Sumitomo Metal Corporation
Application of subloading-overstress friction surface model to finite element analysis
- 09h45 F. Van den Abeele, Fugro GeoConsulting Belgium, Belgium
Fatigue analysis of free spanning pipelines subjected to vortex induced vibrations

10h00 Coffee Break + Poster Session

10h45 Tribology in extreme conditions

- 10h45 S. Jacobson
Tribology is just another word for extreme conditions
- 11h15 E. Bemporad, University of Rome, Italy
Wear mechanisms and in-service surface modifications of a stellite 6B Co-Cr alloy
- 11h30 S. Cappa, KULeuven, Belgium
Radial error motion of porous gas bearings: theoretical modelling and experimental validation
- 11h45 I. Cracaoanu, Philips Innovation Services, the Netherlands
Air bearings in high precision systems

12h00 Tribology in the low countries (1)

- 12h00 D.J. Schipper, University of Twente, the Netherlands
Stribeck and traction curves for elliptical contacts: isothermal friction mode
- 12h15 M. De Rooij, University of Twente, the Netherlands
Predicting galling behaviour in deep drawing processes
- 12h30 V. Rodriguez, UGent, Belgium
Tribological behaviour of the low and high viscosity PEEK against steel using different contact pressures
- 12h45 Y. Perez Delgado, UGent, Belgium
Friction and wear response of tib2-b4c ceramics
- 13h00 P. Lugt, SKF, the Netherlands
On the Grease Lubrication Mechanisms in Rolling Bearings

13h15 Lunch

14h00 Tribology in the low countries (2)

- 14h00 I. Cracaoanu, Philips Innovation Services, the Netherlands
Tribology in Brainport Eindhoven Region - solution to achieve innovative products
- 14h15 M. Woldman, University of Twente, the Netherlands
Single asperity abrasive wear and the influence of abrasive body dimensions
- 14h30 D. Karupannasamy, University of Twente, the Netherlands
Modelling roughness effects on friction in deep drawing processes
- 14h45 A. Rodriguez, University of Twente, the Netherlands
Friction in tactile contact with polymers
- 15h00 J. Sukumaran, UGent, Belgium
Transfer layer dynamicity in roll-slip of polymer metal pairs
- 15h15 A. Winogrodska, University of Twente, the Netherlands
Surface changes during wear of ceramics investigated by confocal and Raman spectroscopy

15h30 Coffee Break

16h00 Workshop: Self lubricating composite bearings

- 16h00 P. De Baets, UGent, Belgium
Welcome
- 16h05 P. Bakker, Trelleborg, UK
Polymer composites in sliding bearing applications. Contributions to sustainable construction and future
- 16h20 S. de Jong, Asec, the Netherlands
Practical applications of self lubricating composite
- 16h35 G. Worm, BBS, the Netherlands
Lubrication, maintenance and failure of self-lubricating
- 16h50 A. Ramalho, University of Coimbra, Portugal
Tribotesting: from the laboratory measurements to field application
- 17h20 *Questions and debate*

18h00 Network reception

Poster Session

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| D. Belgado Rosado
<i>Developments in mechanical and metallurgical properties of high strength line pipe steels over the last three decades</i> | M. Safaei
<i>Evolution of anisotropy of sheet metals during plastic deformation</i> |
| S. Hertelé
<i>Combined numerical-experimental framework for strain based design and flaw assessment of girth welds</i> | J. Van Wittenberghe
<i>Reduced-thickness CVN testing to represent slant failure of pipelines</i> |
| T. Galle
<i>Effect of load flank angle modifications on the structural integrity of buttress threaded connections</i> | A. Goda
<i>Examination of product development and globalization of Hungarian cob cracker producer industry on</i> |
| T. Galle
<i>Numerical evaluation of geometric changes to buttress threaded connections using various criteria</i> | E. Pintér
<i>Stress optimization process of bevel gearbox housing with six axes</i> |

- T. Yue
Numerical modelling of fretting wear
- M. Sadeghi
A review of FE on crack initiation in fretting fatigue
- J. De Pauw
Design of a fretting fatigue test rig with compliant springs
- T. Nguyen
Tribological behaviors of polymer bearing under dry and water lubrication
- Z. Szakal
Measure the modulus of elasticity with different method
- K. Van Minnebruggen
Parametric finite element model for spiral welded pipes sections loaded in tension
- B. Sobhani Aragh
Thermal analysis of two-dimensional temperature-dependent functionally graded open cylindrical shells
- Y. Santana
Dry sliding wear of DLC-CrC coating on 316L stainless steel alloy
- J. La Barbera-Sosa
Fatigue behavior of a SAE 4340 steel coated with nanostructured powders of WC-12%Co deposited by HVOF thermal spraying
- C. Villalobos-Gutiérrez
Fatigue behavior of a SAE 4340 steel coated with WC-12% Co, reinforced with carbon nanotubes, deposited by HVOF thermal spraying
- M. Verstraete
Considerations in selecting laboratory scale test specimens