One Day Technical Meeting
8th November 2011
Bergen, Norway

Following on from the successful two previous meetings in addressing this rapidly expanding technology area within the oil and gas industry, the 3rd Annual Optoelectronic Technologies for the Oil and Gas Industry Technical Meeting, will highlight major developments in optoelectronic technology relevant to current and future oil and gas industry applications. The breadth of optoelectronic technologies that may be utilized by the oil and gas industry will be reflected in presentations covering optoelectronics for Downhole, Seabed, Subsea and surface applications. The 2011 meeting will be held in Bergen, Norway's second largest city, and a center for the oil and gas sector. The meeting provides a unique opportunity for oil and gas industry professionals, technology developers, academics, and researchers to share the latest innovations in this rapidly expanding technology area.

We look forward to welcoming you at the meeting.
The Organizing Committee

The meeting is co-sponsored by

FMC Technologies
The Michelsen Centre for Industrial Measurement Science and Technology
Norwegian Centres of Expertise NCE Subsea
SUT Society for Underwater Technology
IOP Institute of Physics
NORWEGIAN PETROLEUM SOCIETY

Official Media partner

OFFSHORE MEDIA GROUP

Meeting Programme

MORNING SESSIONS

REGISTRATION AND COFFEE **08.30**

INTRODUCTION **09.00**

MORNING KEYNOTE TALK

Challenges and Possibilities with Fibre Optics Subsea and in Well **09.15**
Kjetil Johannessen, Statoil

Session 1

Distributed Acoustic Sensing – a new way of listening to your well/reservoir **09.45**
Mahmoud Farhadiroushan, CEO, Silixa Ltd., Brian Drakeley, Weatherford International

Pipe-in-pipe flowlines monitoring using fiber optic distributed sensing **10.10**
E. Rochat and M. Niklès (Omnisens), Ch. Geersten (ITP)

Fully distributed fiber strain and temperature sensing for harsh environments **10.35**
Ian Shannan, Luna Technologies

COFFEE AND POSTERS **11.00**

Session 2

APC Wet-mate connectors for achievement of very low return loss **11.30**
Richard Jones, Teledyne Oil & Gas

An Optical architecture for Optoelectronic systems on subsea Hydrocarbon Production equipment and its application to integrity management **11.55**
D. Faichnie, A. Ögmundsson and D. McStay, FMC Technologies Ltd, UK T.Blevins and B. Marwick, Hydrobond Engineering.

Breakthrough technologies for Flexible Riser Integrity Management **12.20**
Mateusz Podskarbi, Schlumberger & Patrick Le Stanc, Technip

LUNCH **12.45**

AFTERNOON SESSIONS

AFTERNOON KEYNOTE TALK

Future Challenges for Optoelectronics in the Oil and Gas Industry **13.35**
C. Johansen, FMC Technologies

Session 3

Real-Time Laboratory Quality Measurements in Harsh Environments for Asset Management **14.05**
Bob Freese, Christopher Jones, Mickey Pelletier, Jing Shen, and David Perkins
HALLIBURTON

Synthetic Bio-photonic sensors for Subsea Oil and Gas Monitoring Applications **14.30**
P. Quinn and Daniel McStay, King's College London,

Optodes for environmental monitoring. **14.55**
Jostein Hovdenes
Aanderaa Data Instruments AS

COFFEE **15.20**

Session 4

Well Access Management System **15.40**
John Mulholland,
FMC Technologies

In-situ monitoring of Fiber Optics Cables **16.05**
Bruno Huttner
Luciol Instruments

Optoelectronics in Bergen/ Discussion **16.30**

MEETING CLOSE **17.00**

Posters and Table Top Displays

3D Color Laser Digitization for Oil and Gas Industry Inspection and Monitoring Applications
L. De Dominicis, M. Ferri de Collibus, G. Fornetti, M. Francucci, M. Guarneri, M. Nuvoli, R. Ricci., Diagnostics and Metrology Laboratory ENEA

DESIGN OF MACH---ZEHNDER INTERFEROMETER FOR SUBSEA DETECTION OF METHANE
Susan Lindecrantz, Olav Gaute Hellesø
Dept. of Physics and Technology, University of Tromsø

Image Particle Analysis using Advanced Image Processing
Gordon Morison1, David Watson1, David Faichnie2, Ali Ahmadinia.1, Brian Stewart1
1-Glasgow Caledonian University,2- FMC

Subsea 3D Laser Profiling and Imaging Technologies
A Al-Obaidi and A Jakas, Smart Light Devices

EMBEDDED FIBER OPTIC SENSORS IN FLEXIBLE RISERS
Bo Asp Møller Andersen, Nkt flexibles, Denmark

Active and passive subsea optical cabling solutions
FMC Technologies Ltd

Next generation electro-optic sensors for long range, high resolution undersea inspection and high bandwidth communications
Fraser Dalgleish, Bing Ouyang, Anni Vuorenkoski, Brian Ramos and Walter Britton, Harbor Branch Oceanographic Institute at Florida Atlantic University

Environmental & Mechanical Testing of High Pressure High Temperature Optical Penetrator Assembly
Jim Braddock & George DeNardo, Lancer Systems

Condition Monitoring a Subsea Pump and Motor
Chris Staveley, Smart Fibres Limited

Using Imaging Technology for Production Monitoring and Optimisation
Gayathri Ariaratnam, Jorin Limited

Electrical Motor Condition Monitoring
Alan Nesbitt, Brian G Stewart and Scott G McMeekin
School of Engineering and Built Environment
Glasgow Caledonian University

Permanent Reservoir Monitoring using fibre-optic seismic sensors in deep water
P. Nash, R. Luff, A. Strudley, Stingray Geophysical Limited

Characterisation of Crude Oil using Synchronous Scanning Fluorescence Spectrometry
J. Taberlya, M. Uttamlala, A. S. Holmes-Smitha, D. M. Hepburna, A. Grahamb, D. Faichnieb
a School of Engineering and Built Environment, Glasgow Caledonian University, b FMC Technologies Ltd

In-situ deep-UV fluorescence life-time hydrocarbon leak detection
Anni Vuorenkoski, Bing Ouyang and Fraser Dalgleish, Harbor Branch Oceanographic Institute at Florida Atlantic University

Light-weight carbon cable with fibre optics for offshore applications
Vello Nordic AS

Orthogonal Frequency Division Multiplexing (OOFDM) for Underwater Optical Communications
Petar Minev, Charalampos C. Tsimenidis and Bayan S. Sharif , Newcastle University

Hermetically Sealed Fibre Optic Assemblies
Fibreco Limitedsemblies

Aanderaa Data Instruments AS

Organising Committee

Daniel McStay, *FMC Technologies* (Meeting Chair)
Jon Oddvar Hellevang, *NCE Subsea* (Local Meeting Coordinator)
Bob Allwood, *Society of Underwater Technology*
Lars Egil Helseth, *The Michelsen Centre for Industrial Measurement Science and Technology (MI MT)*
Luigi De Dominicis, *Italian National Agency for New Technologies, Energy and Sustainable Economic Development [ENEA]*
Thanga Thevar, *Aberdeen University*
Olav Gaute Hellesø, *University of Tromsø, Norway*
Khalid Thabeth, *Advanced sensors Ltd*
Brian Stewart, *Glasgow Caledonian University*
Graham Kerr, *FMC Technologies*
Mike Shand, *Weatherford*
Ala Al-Obaidi, *Smart Light Devices Ltd*
Paul Machin, *Halliburton*
Jarle Skeidsvoll, *ProAnalysis AS*
Sigurd Moe, *FMC Technologies*

Registration

Attendance at the meeting is free, however those wishing to attend should register via one of the options below:

Webpage:	www.optotechmeeting.com
e-mail:	**vicki.ferguson@fmcti.com**
Telephone:	+44 (0) 1383 747021

Light refreshments and lunch will be provided during the day courtesy of the meeting co-sponsors, The Michelsen Centre.

Venue

The 2011 Optoelectronic Technologies For the Oil and Gas Industry technical meeting will be held in The Michelsen Centre at the Fanteria AS in Bergen. This is located approximately 7km from the centre of Bergen and 13km from Bergen airport.

The Michelsen Centre
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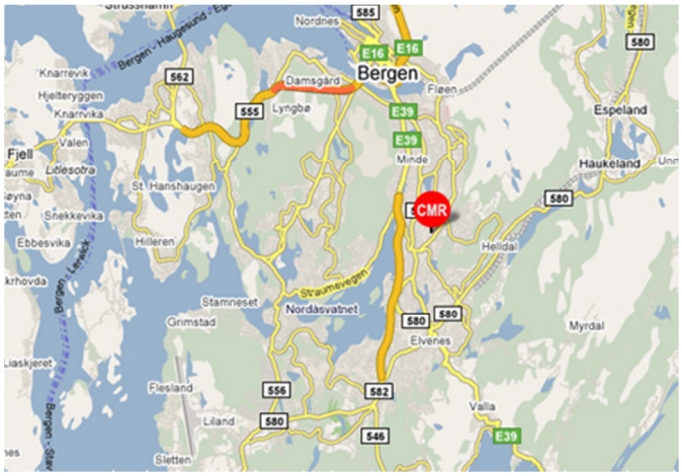

Ice Breaker Reception

An Ice Breaker reception will be held in the Galleri Nygaten in Bergen on the evening of the 7th of November, courtesy of the meeting co-sponsors FMC Technologies.

For further information please go to the meeting website: http://www.optotechmeeting.com/

or contact:

Vicki Ferguson: **vicki.ferguson@fmcti.com**

Local Meeting Coordinator Jon Oddvar Hellevang: jon.hellevang@ncesubsea.no