otm 101 series FIBER OPTICS IN THE OIL & GAS INDUSTRY IN ASSOCIATION WITH SEAFOM

INTRODUCTION

A series of training courses – the 101 series – has been developed by OTM to highlight the transfer and development of innovative technology into the oil and gas industry.

WHO SHOULD ATTEND

- Newcomers to the oil and gas industry
- Engineers, technical sales and administrative staff
- Anyone interested in gaining an understanding of fiber optic technology and its applications

Attendees do not require any previous experience or knowledge of fiber optics

COURSE DATES AND COST

- **Cost will be $500 and $350 if a SEAFOM member**
- Discounts are available for SEAFOM members and group bookings. Please contact OTM for further details
- Each course typically has 10-15 delegates which allows for good interaction with the presenters
- The next course is being held in Houston, USA on Thursday, 8th November 2018.

ON COMPLETION

The course will leave delegates with:

- A good understanding of the basic principles of fiber optics
- An introduction to applications within both the onshore and offshore environments
- An appreciation of the challenges and obstacles that fiber optics face in the future

COURSE CONTENT

INTRODUCTION TO FIBER OPTICS

How do fiber optics work?

- History
- Fiber Optic Theory – Electromagnetic Spectrum/Optical Window
- Light Transmission in Fiber – Bandwidth / Dispersion / Fiber Parameters / Graded

CHARACTERISTICS OF THE FIBER

How are fiber optics made and how does this affect how they are used:

- Fiber Types and Optical Design – Fiber Manufacture / Primary Coated Fibers / Multi Core Fibers / External Fibers
- Techniques and Effects: Raman effect / Bragg grating / polarisation / stokes
- Fiber Optic Sensors: Intensity based sensors / phase based sensors / wavelength based sensors / polarisation / distributed sensing

FIBER OPTICS IN OIL AND GAS INDUSTRY

This section will focus on aplications across the oil and gas industry and historically plot its implementation:

- Telecommunication
- Subsea activity
- Onshore and offshore dry tree deployments
- Pipeline integrity

SUBSEA APPLICATION

This section will focus on the current R&D as well as the status of the implementation. It will also examine the potential application in the subsea environment:

- Downhole Sensors
- Umbilicals
- Connectors
- Installation issues
- Frontier operations

CONTACT

If you are interested in attending the course, please contact or contact Sally Marriage at OTM Consulting Ltd. Tel: +44 (0)1372 631950 Email: sally.marriage@otmconsulting.com