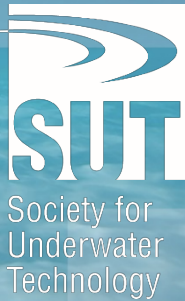


Introduction to Positioning & Survey

20th & 21st February 2019

Saxons Training Facilities
1/140 St Georges Terrace, Perth



Wednesday Programme:

08.30 Registration

09.00 SUT Introduction

09.10 Introduction & Overview

Peter Wademan, Woodside Energy Ltd.

09.30 Mapping the Indian Ocean – Phase 1 of the search for MH370

Hayes Ballantyne, Fugro Survey Pty Ltd.

10.00 Morning tea

10.15 Geodesy & Positioning Principles

Don Abbey, Woodside Energy Ltd.

- * Datums & Coordinate Systems
- * Coordinate Reference Systems
- * Coordinate Conversions
- * Coordinate Transformations
- * MSL, Geoids & Mean Sea Surface Models

11.15 Surface Positioning

Phil Wells, Neptune Geomatics.

- * History of Surface Positioning
- * US, Russian, Europe & Chinese satellite systems
- * Accuracies and misconceptions
- * Impacts of phones, watches and automated technology
- * The future

12.15 Lunch

13.15 Vessel Dynamics

Capt. Phil Griffin, London Offshore Consultants

- * Centre of Gravity
- * Magnetic Compass
- * Stability
- * Gyro Compass
- * Pressure Point
- * Attitude Sensors
- * Turning of Vessels
- * Attitude Sensor Calibration
- * Squat
- * Inertial Navigation Sensor

14.15 Tides and Currents

Scott Noreika, RPS Metocean

- * Tide Measurement
- * Prediction
- * Current Profiling
- * Temp Salinity
- * Sound Velocity Profiling
- * Solitons

15.15 Afternoon tea

15.30 Positioning Technology

Matthew Carver, UTEC Survey

- * Ultra Short Base Line
- * ROV
- * Long Base Line
- * INS
- * Metrology

16.45 Course day end

17.30 Course dinner

Thursday Programme:

09.00 Case Studies

Phil Wells, Neptune Geomatics

- * Pluto Development
- * Equus Deepwater Pipeline Route

10.00 Bathymetry

Giovanni De Vita, DOF Subsea

- * Single Beam Echo Sounder
- * Multi Beam Echo Sounder
- * ROV
- * Side Scan Sonar
- * AUV
- * Validation
- * Tide Correction

10.45 Morning tea

11.00 Survey Data Processing

Martin Watson, Fugro Survey Pty Ltd.

- * Interpolation
- * Data Presentation/Visualization
- * Data Modeling - Gridding and Thinning and Countouring
- * Subsea Data Modelling

11.45 Geophysics

Fiona Fitzpatrick, RPS Australia Asia Pacific

- * Reflection
- * Refraction
- * Resistivity & Magnetometer
- * Geotechnical Correlation

12.45 Lunch

13.45 Remote Sensing Technologies

Glenn Morrison, AAM Group

- * Earth Observation: Satellites & Airborne
- * RADAR, LIDAR & Hyperspectral
- * New systems and Application examples
- * Laser scanners & Photogrammetry

14.30 Improving coastal navigation using multi sensor technology

Kate Downes, Fugro Survey Pty Ltd.

- * Survey Equipment
- * Land Survey Techniques
- * Logistical Challenges
- * Tides
- * Coverage Achieved
- * Reporting

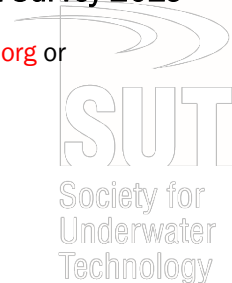
15.30 Certification and Course Conclusion

Course programme is subject to change.

Thank you to our presenting companies:



Registration Information



Should you require further information on this course, or to register, please contact Patricia Slapp on p.slapp@sut.org or Tel +61 8 9481 0999.

Registration Fees

SUT Members Early Bird (register and pay before 17th January)	\$904.54 + GST = \$995.00
SUT Members (registration from 18 th January)	\$1,122.72 + GST = \$1,235.00
Non Members Early Bird (register and pay before 17th January)	\$1,072.72 + GST = \$1,180.00
Non Members (registration from 18 th January)	\$1,336.36 + GST = \$1,470.00
SUT Student Member	\$363.63 + GST = \$400 – <i>limited places available</i>

Fee includes - All refreshments including dinner on the first night and an electronic copy of the available presentations and videos are provided.

Not included - Hard copy presentations are not provided. Should these be required there is an additional fee of \$85.

Handbook of Offshore Surveying (3 volumes)

These are available to purchase from the SkillTrade website bookstore in the Netherlands - www.skilltrade.nl

Preferred Payment Methods:

Credit Card: Visa, Mastercard or AMEX only *. We cannot accept payment by any other card.

* Payment by Visa or MasterCard will carry a 1.5% surcharge / AMEX will carry a 2.75% surcharge.

Invoice: Please tick here to be invoiced

Joining Instructions:

Joining instructions will be e-mailed to the registered delegate (as shown on the registration form). All details of presenters and updates to the programme will be included in the joining instructions. Please bring along a laptop to view the presentations.

Course Dinner:

An informal dinner will be held in a local restaurant on the first night of the course (details with joining instructions).

Transport During the Course:

Delegates are responsible for their own travel arrangements at the beginning and end of each day.

Cancellations: Refunds will be made on written cancellation received up to ten working days prior to the event, but will be subject to a 15% administration charge. Cancellations received 9–4 working days prior to the event will be charged a 50% cancellation fee. Cancellations received 3–0 working days prior to the event will not be refunded. Delegates may wish to nominate a substitute in their place at no charge.

CPD Hours: CPD hours can be claimed for this course, please keep flyer and receipt for auditing purposes.

Please tick box if you do not wish to receive further SUT information

Registration Form

Please e-mail completed form to p.slapp@sut.org

Please tick to indicate your preferred payment method: _____ SUT Member No. _____

Credit Card _____ (Visa, MasterCard or AMEX only)* Invoice (PO No.) _____

Name _____ Please tick here if personally funding course

Company _____

Address _____

E-mail address _____ Tel No. _____

Credit Card No: VISA, MASTERCARD or AMEX ONLY * _____/_____/_____/_____

Exp. _____ / _____ Security no _____ (3 digit number for visa & m/c, 4 digit number for amex)

Name on the card _____

Billing Address if not as above _____

E-mail address where receipt should be sent for credit card payment _____

Amount to be charged \$ _____ Signature _____