

ABOUT THE COURSE

The development of offshore industry commenced with the use of fixed structures. As development accelerated with the discovery of oil & gas in deeper waters, the use of floating structures became commonplace. Floating renewable energy devices may also become commonplace in deeper water. The primary concepts considered are FPSOs, semi-submersibles, TLPs and Spars. Other concepts which may be used as alternatives or in conjunction with floating systems are jackets and compliant towers. This course introduces different tools which are required to assess the rigid-body and structural response of the concepts due to various loadings which a structure will encounter during its lifetime.

WHO SHOULD ATTEND

Engineers and scientists involved in the design of floating offshore structures or entering the offshore structures industry. Personnel from oil and wind energy companies, classification societies and offshore structure fabricators, clients commissioning design and analysis work and students on specialist offshore engineering courses will benefit from attending this course. The course is innovative with a careful balance of theory, practice and worked examples.

COST

The registration fee of the workshop will be £695 plus VAT (UK ONLY) which includes course notes.

COURSE MATERIAL

The lecture notes will be sent in advance

PAYMENT

Payments can be made by cheque(made payable to ASRANet Ltd.), cash or bank transfer. Please enquire for details.

Contact Us

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ONLINE

Floating Offshore Structures

22-23 April 2024



(A Maritime Company for Courses,
Conferences and Research)

PROGRAMME SCHEDULE (All Timings are in BST (GMT +1))

Monday 22 April 2024

09.00 - 10.30 Lecture 1: Linear and linear random wave theory

10.30 - 10.45 *Break*

10.45 - 12.15 Lecture 2: Diffraction- Radiation Analysis

12.15 -12.45 *Lunch*

12.45 -14.15 Lecture 3: Floating structure motion calculation

14.15 - 14.30 *Break*

14.30 - 16.00 Lecture 4: Examples: Part-1

Tuesday 23 April 2024

09.00 - 10.30 Lecture 5: Local pressure, hull girder bending, bracing forces

10.30 - 10.45 *Break*

10.45 - 12.15 Lecture 6: Wave slam and slap

12.15 - 12.45 *Lunch*

12.45 - 14.15 Lecture 7: Fatigue and strength assessment

14.15 - 14.30 *Break*

14.30 - 16.00 Lecture 8: Examples: Part-2

CV of Lecturer

Professor Nigel Barltrop



Professor Barltrop is an emeritus professor at the university of Strathclyde, UK and the director of Barltrop Engineering LLP which was established in 2015 and provides consultancy and expert witness services in the areas of fatigue and strength of offshore structures, ships, lattice towers and renewable energy devices. His career activities in different stages are as follows:

2015 - 2017: Expert witness on litigation related to jack up production platforms and an offshore met mast. Dynamic fatigue analysis of a flare tower and front-end design of a fish farm. Part time professor at University of Strathclyde.

1995 - 2015: Professor at Glasgow and then Strathclyde Universities. (Head of Department 1995 - 2001). Research work includes Deepwater breaking wave forces and structural reliability of degrading offshore structures. Published Floating structures: a guide for design and analysis, MTD/OPL. Expert witness for loss of MV Prestige.

1977 - 1995: Atkins, Head of Marine & Structural Technology department 1984, Technical Director 1988. Projects include design of Leman G platform, Hutton TLP Column-Pontoon connections, Structural assessment and strengthening of the semi-submersibles Buchan Alpha and Iolair, the Seacat 'Great Britain' catamaran and several tankers, investigation of damage to WEG MS3 wind turbines. Developed software for analysis of stiffened plating, concrete offshore structures, coupled tether-hull TLP dynamics and response of lattice towers and turbines to wind turbulence. Expert witness in relation to losses of Alexander Kielland, Silimna and Kirki. Published Dynamics of fixed offshore structures (MTD/Butterworth Heinemann) and Fluid loading on fixed offshore structures (HMSO). Wrote fluid loading section of DEn/HSE "Guidance notes" and contributed to the development of offshore ISO standards.

1973 - 1977: Freeman Fox and partners, contributed to preliminary design of Hong Kong mass transit railway, detailed design of Hull "Myton" swing bridge, construction supervision of Humber suspension bridge.