

ABOUT THE COURSE

The course will aim to teach structural modelling of fixed platforms, which includes calculation of hydrodynamic loading through Morison's equation. The modelling of the fixed platforms as a 3D structural models, using beam elements will be taught. The response of the structure will be checked using codified rules in order to check the compliance of the structure. First principle design and analysis of beams, beam column, unstiffened and stiffened plates will be taught. Finally, the analysis and design of stiffened shells, which form a major structural component of many offshore structures such as Jacket platforms, compliant towers will be outlined, including structural reliability analysis of their shell structures.

WHO SHOULD ATTEND

Engineers and scientists involved in the design of offshore structures. Personnel from oil companies, classification societies and offshore structure builders will benefit from attending this course. The course is innovative in both content & structure with a careful balance of theory & practice.

COST

The registration fee of the workshop will be £650 + VAT (UK only) which includes course notes and lunches. You should make your own arrangements for accommodation.

PAYMENT

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

VENUE

George Square Ltd
St Georges Building
3rd Floor
5 St Vincent Place
Glasgow, G1 2DH

NOTE

Please do not make your travel arrangements until you receive an Invoice from us.

CONTACT

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Advanced Analysis and Design of Offshore Structures

**12-13 March 2018
Glasgow, UK**



An ISO 9001:2015 certified company

PROGRAMME

Monday 12th March 2018

08.30-09.00	Delegate Registration
09.00-10.30	Lecture 1: Overview of advances in offshore structure design. <i>Mr Trevor Hodgson</i>
10.30-11.00	<i>Break</i>
11.00-12.30	Lecture 2: Structural modelling of fixed platforms – I. <i>Mr Trevor Hodgson</i>
12.30-13.30	Lunch
13.30-15.00	Lecture 3: Structural modelling of fixed platforms – II. <i>Mr Trevor Hodgson</i>
15.00 – 15.30	<i>Break</i>
15.30-17.00	Lecture 4: Design of Columns and beam columns. <i>Prof Purnendu Das</i>

Tuesday 13th March 2018

09.00 – 10.30	Lecture 5: Analysis and design of stiffened plate – I. <i>Prof Purnendu Das</i>
10.30 – 11.00	<i>Break</i>
11.00-12.30	Lecture 6: Analysis and design of stiffened plate – II. <i>Prof Purnendu Das</i>
12.30-13.30	Lunch
13.30 - 15.00	Lecture 7: Analysis and design of stiffened shells. <i>Prof Purnendu Das</i>
15.00 - 15.30	<i>Break</i>
15:30 - 17:00	Lecture 8: Tutorials on stiffened plates and stiffened shells <i>Prof Purnendu Das</i>

LECTURER CV'S

Prof Purnendu Das. BE, ME, PhD, C.Eng, C.MarEng, FRINA, FIStructE, FIMarEST has been the Director of 'ASRANet Ltd' (an ISO 9001-2008 certified company) since February 2006. He retired as a Professor of Marine Structures in the Department of Naval Architecture & Marine Engineering at the University of Strathclyde, UK in September 2011. Past EU projects were MARSTRUCT (a network of excellence on Marine Structure) and SHIPDISMANTL (a cost effective and environmentally friendly dismantling of ship structures). Past industrial projects included work from the UK Health and Safety Executive (HSE), MoD UK, Subsea-7 UK, Shell, Woodgroup and US Navies etc. He was the principal investigator of many EPSRC projects. Before joining the University of Glasgow in 1991 he worked with British Maritime Technology as Principal Structural Engineer (1984-91). He is the author of more than 250 publications, including contract reports and more than 60 journal papers and is a member of the editorial boards of the 'Journal of Marine Structures', 'Journal of Ocean and Ship Technology' and 'Journal of Ocean and Climate System' and the Journal of Ship Mechanics amongst others. His areas of research include limit state design and analysis & reliability analysis of ship & offshore structures. Purnendu Das has wide ranging industrial and academic contacts and has advised and supervised 20 PhD students, to his credit. Details of visits and collaborations include his various sabbatical study periods spent at University of California, Berkeley, USA (July – September 1996), at Lloyd's Register of Shipping (August 1997), Kockums Ltd (July 1998) and spent some time at Instituto Superior Técnico (IST), Lisbon (July 2000). He is running about 20 CPD courses which are attracting many people from different industries. These courses are on

'Fatigue & Fracture Analysis', 'Ships at Sea', 'Advanced Analysis and Design of Offshore Structures', 'Offshore Floating System Design', 'Structural Response under Fire and Blast Loading' and 'Design of Pipelines and Risers' amongst others. He was a member of ISSC (International Ship and Offshore Structure Congress) for the periods of 1991-97 and 2003-2006. He was a member of the OMAE (Offshore Mechanics and Arctic Engineering) Organising Committee on 'Safety and Reliability'. He is running about 15 bi-annual international conferences on various themes like Risk, Reliability, Advanced Analysis & Design of Engineering Structures, including marine structures. He was a member of the "Research Committee" of Structural Engineers (IStructE) during 2012-2015. He was a visiting Professor at IST Surabaya, Indonesia from July 2015 for one year. He is now a visiting professor at the Wuhan University of Technology, China from July 2016.

Mr Trevor Hodgson is in his second spell with Atkins, having been with them in total for well over thirty years. He has spent the majority of this time working in offshore-related areas, both in the technical execution of this work and in the management of teams of engineers to achieve specified goals. He has extensive experience of conceptual and detail design for jacket structures and topsides, including over thirty platforms in SE Asia, and concrete structures in the North Sea and worldwide. His experience encompasses both shallow and deeper water platforms of steel and concrete construction, drilling riser and conductor analysis, semi-submersible and FPSO vessels, high-speed aluminium surface craft, and even peer review for the nuclear industry. He has recently been involved in the development of concepts and detailed designs for the offshore

renewable energy market, including wind, wave and tidal energy conversion devices, most recently Wind Turbine Generator (WTG) substructures.

He is highly experienced in the application and interpretation of advanced finite element analysis methods for the design process and has used this experience to great effect in the development and support of engineering software, primarily the ASAS: OFFSHORE suite for the oil and gas industry, now part of ANSYS. He is the author of numerous texts on structural design and analysis, was convenor of a panel covering Structural Analysis of Fixed Concrete Platforms for the ISO standard on offshore installations, and lectures for ASRANet and the Universities of Glasgow and Strathclyde on offshore structures and renewables.