

CURRICULUM VITAE

Personal Details

Name Shan Huang
E-mail s.huang@na-me.ac.uk
Nationality British
Current Position Professor, Department of Naval Architecture and Marine Engineering, University of Strathclyde, Glasgow, UK

Employment

5/2008 - Present Professor at Department of Naval Architecture and Marine Engineering, University of Strathclyde, Glasgow, UK.

6/2002 – 4/2008 Senior Lecturer at Department of Naval Architecture and Marine Engineering, University of Strathclyde, Glasgow, UK.

11/2004 – 5/2005 Secondment to Offshore Systems Team, BP, jointly sponsored by the Royal Academy of Engineering and BP. Participated in a number of industrial projects, as well as made trips to two offshore installations in the Gulf of Mexico and spent a week on these two platforms.

12/1996 – 6/2002 Lecturer at Department of Naval Architecture and Ocean Engineering, University of Glasgow, Glasgow, UK.

5/1995 - 11/1996 Principal Engineer at 2H Offshore Engineering Limited, Woking, England. Main projects include the following.

British Gas - TLP Preliminary Sizing
Project manager for a study into TLP sizing. The project was well received and led further commission from British Gas to study all existing floating production options.

Shell International - Flexible Riser Analysis
Lead Analyst responsible for the FPSO/flexible riser development and field layout option evaluation of the Shell-Bengo field offshore Angola.

Coflexip Stena Offshore Ltd - Coiled Tubing Riser Analysis
Project Manager responsible for analysis of a variety of design and operational problems of the riser system such as derrick arrangement, moonpool clearance, dynamic response, vortex-induced vibrations and fatigue.

Single Buoy Moorings - Agip Aquila Riser System Conceptual Study
Assistant manager responsible for an integral hybrid riser/flowline system for use with an FPSO in a 850m water depth.

BP Exploration - Steel Catenary Riser Study Phase II
Lead Engineer responsible for the second phase study of steel catenary risers in both West of Shetland and Gulf of Mexico environment conditions.

BP Exploration - Bottom Weighted Riser Mapping Study
Assistant manager responsible for establishing limits of application of a novel large diameter export riser concept for use with an FPSO in West of Shetland.

11/1992 - 4/1995 Postdoctoral Research Fellow at the Marine Technology Centre, University of Strathclyde.

Research into various offshore engineering problems, including launch and recovery of subsea modules, marine cable snap loading, an offshore emergency evacuation system, automatic control of tethered ROVs.

5/1985 - 9/1988 Assistant Research Engineer and then Research Engineer at the Ship Resistance and Performance Department of China Ship Scientific Research Centre.

Research in the area of naval-hydrodynamics, including flow around ship hulls and torpedoes, fast-speed hydrofoils, non-cavitating and partially-cavitating hydrofoils.

EDUCATION

5/1989 - 6/1992 Ph.D. student at the Marine Technology Centre, University of Strathclyde, UK.

10/1988 - 4/1989 Ph.D. student at the Mechanical Engineering Department, Brunel University, UK.

9/1982 - 4/1985 MPhil student at the Post-Graduate School of China Ship Scientific Research Centre, Wuxi, China.

9/1978 - 7/1982 Undergraduate student at the Department of Naval Architecture, Huazhong University of Science and Technology, Wuhan, China.

QUALIFICATION

1992 PhD in Ship and Marine Technology

1985 MPhil in Naval Hydrodynamics

1982 BEng in Naval Architecture

External Appointments and Activities

2005 – Present	Associate Editor of Journal of Offshore Mechanics and Arctic Engineering, American Society of Mechanical Engineers.
2006 – Present	Fellow of the Royal Institute of Naval Architects, London.
2006 - 2011	PhD External Examiner – University of Cambridge (2012); Norwegian University of Science and Technology (2012); University of Tasmania, Australia (2012); University of Western Australia (2011); University of Newcastle (2010); Memorial University, Canada (2006).
2005 - 2011	Committee Member, Vortex Induced Vibration Specialist Group, International Towing Tank Conference (ITTC).
2001 - Present	OMAE (International Conference on Offshore Mechanics and Arctic Engineering) Session Chairman (2001), OMAE Session Organiser and Chairman (2002 to 2010).
2004 to 2007	Guest lecturing on <i>Advanced Offshore Engineering</i> , a module of the MSc course in Offshore Engineering, School of Civil and Environmental Engineering, Nanyang Technological University, Singapore. The teaching was held once a year for four years.
2004	ISOPE (International Conference on Offshore Mechanics and Polar Engineering) - Session Chairman.
2002	ISOPE (International Conference on Offshore Mechanics and Polar Engineering) – Member of the Conference Technical Committee.
2001	Member of the Organising Committee of the International Workshop on the Safety of Bulk Carriers.

Reviewer for

- Journal of Fluids and Structures
- Applied Ocean Research
- Quarterly Journal of Mechanics and Applied Mathematics
- Journal of Offshore Mechanics and Arctic Engineering.
- Ocean Engineering

Teaching

2012: Recipient of the Strathclyde Teaching Excellence Awards in Recognition of Outstanding Teaching, University of Strathclyde.

2007: Initiated, developed and started to run three new MSc courses in Subsea Engineering, Offshore Floating Systems and Offshore Renewable Energy.

Current teaching modules

- Offshore engineering practice
- Riser and mooring line
- Marine pipeline
- Subsea systems and installation
- Ocean engineering

Recent Industrial Consultancy Work

- Oil companies: projects for BP, Statoil, Norsk Hydro ranging from design guidelines, project design reviews to data analyses on various problems of deepwater risers and mooring lines.
- Offshore contractors: Boreas (subsea pipeline failure); BPP Tech-Service Ltd (underwater umbilical failure investigation); Expro Group (launch and recovery of control umbilical); SBS (flow around a decommissioning barge in harbour); Orcina (software validation); Cybermarine (jack-up leg design).
- Rumic (drag optimisation of the submarine rescue vehicle LR5); MacTaggart Scott & Co (vibration of submarine mast); Eason Marine (navigation buoy and mooring); Aquasmart (floating fish-farming cage); Halcrow (floating breakwater design review); WEGMET (future marine concepts); Delta Marine (rudder force prediction); RES (floating LiDAR); Maritime Craft Services Ltd (offshore wind turbine access).

Journal Papers

1. Huang, S and Herfjord, K (2012). Model test on wake induced two-degrees-of-freedom oscillations of a downstream cylinder behind an upstream cylinder in cross flows. To be submitted.
2. Huang, S and Herfjord, K (2012). Model test of two interfering VIV cylinders at various staggered and tandem positions. Submitted to Journal of Fluids and Structures.
3. Huang, S and Sworn, A (2012). Model test on two fixed cylinders with strakes at various side-by-side, staggered and tandem positions. Accepted for publication in Applied Ocean Research subject to revision.
4. Huang, S and Sworn, A (2012). Hydrodynamic Interaction between two Fixed or Elastically Supported Circular Cylinders. Journal of Offshore Mechanics and Arctic Engineering. DOI: 10.1115/1.4007053.
5. Huang, S and Sworn, A (2011). Some observations of two interfering VIV circular cylinders of unequal diameters in tandem. Journal of Hydrodynamics, Ser. B. Vol 23, No 5.
6. Huang, S (2011). VIV suppression of a two-degree-of-freedom circular cylinder and drag reduction of a fixed circular cylinder by the use of helical grooves. Journal of Fluids and Structures 27, 1124–1133.
7. Huang, S, Khorasanchi, M, Herfjord, K (2011). Drag Amplification of Long Flexible Riser Models Undergoing Multi-mode VIV in Uniform Currents. Journal of Fluids and Structures 27, 342–353.
8. Huang, S. (2010). Instability Of A Vertical Riser In The Wake Of An Upstream Vertical Riser. Applied Ocean Research 32, 351[±] 357.

Conference Papers

1. Shan Huang and Neil Kitney (2010). Model Test on Drag of Cylinders with Helical Grooves at High Reynolds Numbers. International Conference on Offshore Mechanics & Arctic Engineering, Shanghai.
2. François Moreau and Shan Huang (2010). Model Testing on Cross-Flow Vortex-Induced Vibration in Combined In-Line Current and Oscillatory Flows. International Conference on Offshore Mechanics & Arctic Engineering, Shanghai.
3. Shan Huang (2010). Cylinder drag reduction by the use of helical grooves. Proceedings of the Hydralab III Joint Transnational Access User Meeting, Hannover, Germany.
4. S. Manayankath and S. Huang (2009). An investigation on the effect of current directionality on riser vortex-induced vibration. International Conference on Floating Structures for Deepwater Operations, Glasgow, UK.
5. Mahdi Khorasanchi and Shan Huang (2009). Preliminary instability analysis of deepwater riser with fairings. International Conference on Offshore Mechanics & Arctic Engineering, Hawaii.
6. Shan Huang and Neil Kitney (2009). Dependence of lift coefficient C_{lv} on Reynolds number and surface roughness and its possible impact on SHEAR7 prediction. International Conference on Offshore Mechanics & Arctic Engineering, Hawaii.
7. Anders Kloven & Shan Huang (2009). Motion response of a rotating cylinder in currents. International Conference on Offshore Mechanics & Arctic Engineering, Hawaii.
8. S Huang (2008). Offshore engineering education – MSc project. Deepwater Offshore Technology Symposium, Shanghai JiaoTong University, Shanghai.
9. Shan Huang (2007). Flow around and forces on a circular cylinder with helical grooves. 12th International Congress of the International Maritime Association of the Mediterranean, Varna, Bulgaria.
10. Shan Huang et al (2007). Drag reduction of deepwater risers by the use of helical grooves. International Conference on Offshore Mechanics & Arctic Engineering, San Diego.

Grants and Contracts

2012 Sponsor:	Model test on unsteady aerodynamics of offshore wind turbines Lloyd's Register Group
2011 Sponsor:	Effects of hydrodynamic coefficients on FPSO extreme mooring line loading and offset based upon a hybrid time-frequency domain analysis with long term hindcast metocean data Lloyd's Register Group
2010 Sponsor:	Hydrodynamic coefficients of mooring chains and FPSO damping GL-Noble Denton & BP
2009 Sponsor:	Tank test facilities for deepwater ocean engineering Scottish Funding Council
2009 Sponsor:	Schiehallion FPSO Mooring Line VIV Analysis BP
2008 Sponsor:	Verification Study on OrcaFlex Riser Interference Module BP
2008 Sponsor:	MSc in Subsea Engineering & MSc in Offshore Floating Systems Developing industrial links, lectures and the course recruitment promotion Collaborative Training Account, EPSRC
2007 Sponsor:	Drag test on cylinders with helical grooves EU and BP
2007 Sponsor:	The dependence of lift coefficient C_{lv} on Reynolds number and surface roughness and its possible impact on SHEAR7 prediction BP
2007 Sponsor:	GN 65-701 Riser hydrodynamic modelling guidance note, Rev 2, pp170 and review of the following documents <ul style="list-style-type: none">• GP 65-74 on TTRs;• GP 65-77 on Hybrids;• GP 65-75 on Flexibles;• GP 65-72 on VIV;• GP 65-73 on SCRs;• GN 65-702 on Riser analysis techniques;• GN 65-711 on Riser load matrix. BP
2007 Sponsor:	Structured industrial collaboration in marine MSc programme Collaborative Training Account

2007 Design methodology and analysis issues AX-S control umbilical system
Sponsor: Expro Group

2007 Prediction of the current flow around and forces on Barge BOS 600 at
Greenhead
Sponsor: SBS Logistics Ltd

2007 CO₂ Capture and Storage of CEPV and FPGP Concepts
Sponsor: EU