REGISTRATION – 2 Easy Ways to Register!!
MAIL or FAX to:

Professional Activities Centre
Faculty of Engineering
National University of Singapore
9 Engineering Drive 1
Blk EA #05-34
Singapore 117576

Enquires: Please contact Ms Lilian Choong for more information at:
Tel: (65) 6516 5113/ (65) 6778 2314 or
E-mail: engcll@nus.edu.sg
Website: http://www.eng.nus.edu.sg/PACentre/

Fee:
Local Participants: SGD350.00 + SGD17.50 (5%GST)
Foreign Participants: SGD350.00 (GST Exempted)

Payment: Payment is required prior to the course. Crossed cheques should be
made payable to “National University of Singapore” and mailed
together with the registration form to the mentioned address.

Discount: A 10% discount will be given to:
- Employees of the NUS Technology Associates registered with
  INTRO (Industry and Technology Relations Office);
- NUS Alumni members;
- Organizations/Companies that are sending three or more
  participants.

Refunds and Cancellations: A 50% refund will be made for withdrawals (received in writing) ten
working days before the commencement of the course. No refunds
will be made thereafter. However, a replacement will be accepted
upon prior arrangement at no extra cost. Please inform us of the
changes, if any, by fax. The Professional Activities Centre reserves the
right to cancel the course and fully refund the participants, should
unforeseen circumstances warrant it. Every effort will be made to
inform participants of any changes.

Closing Date: 21st November 2005, Monday

Structural Reliability Analysis of
Offshore Structures and Ships –
Practical Design Applications
including Partial Factor
Derivation  (Accredited 7 PDUs by the P. E. Board)

By
Dr Paul Frieze BSc, MSc, PhD, CEng,
FRINA, MStructE, MSNAME, ACIArb
PAFA Consulting Engineers
United Kingdom

Date: 2nd December 2005, Friday
Time: 9.00am – 5.00pm
Venue: National University of Singapore

Jointly Organized by:
- Professional Activities Centre, Faculty of Engineering
- Centre for Offshore Research & Engineering,
  Faculty of Engineering
Structural Reliability Analysis of Offshore Structures and Ships – Practical Design Applications including Partial Factor Derivation

2nd December 2005, Wednesday

Course Objective

The course objective is to provide practising engineers and young researchers with the capability of implementing reliability analysis on a day to day basis and as means of analysing data for research applications.

Professional Development Accreditation

Accredited 7 PDUs by the Professional Engineers Board Singapore

Topics to be Covered

The course concentrates on the practical application of SRA for every-day use. It begins at a basic level showing how data, both loading and resistance, can be analysed to provide inputs for SRA. Both reliability index (β) and FORM calculations are used to demonstrate basic ideas and provide solutions. Code calibration is described, that is, the means by which the partial factors required for a new standard are determined through comparison with the reliability implicit in existing structures.

Two detailed example calculations are presented in a ‘hands-on’ format. The first concerns the reliability of the hull girder and a stiffened panel of an FPSO subjected to wave and still water bending moments: some comparison with full-scale data are also included. The second relates to partial load and resistance factors for fixed steel platforms with particular reference to API RP 2A and its forthcoming international replacement ISO 19902.

Target Audience

The course is aimed at practising engineers, young researchers, and managers in need of a refresher in structural reliability analysis (SRA).

Lecturer's Profile

Dr Frieze has over 30 years experience in the offshore, naval architecture and onshore structural engineering fields, such as bridges, tunnels and tidal barrages. Much of this has been concerned with the analysis, design, and ultimate and damage residual strength assessments, and their reliability assessment. This has also concerned construction effects and design methodologies and approaches. He was Senior Lecturer at Dept of Naval Architecture & Ocean Engineering for six years where he led a significant research effort.

Dr Frieze's specialities are; non-linear analysis, dynamic analysis, ultimate strength, damage assessment, experimental analysis, code development, load and resistance factor derivation, and structural reliability analysis. He has applied these primarily to steel structures and more recently to composite structures.

He is a member of the BSI and ISO Committees for the development of an International Offshore Structures Code and as well participates in the detailed work of three of the panels concerned with steel jackets, floating systems and jack-ups. He edits the ISO floating structures standard and is a member of the ISO committee to develop ship limit state criteria.

Dr Frieze has undertaken forensic work in relation to damage assessment cases and appeared as an expert witness in disputes involving damage, construction defects, and design criteria of a range of predominantly marine structures. He has acted as a sole expert.

Memberships

- Fellow, Royal Institution of Naval Architects.
- Member, Institution of Structural Engineers.
- Member, Society of Naval Architects and Marine Engineers.
- Associate Member, Chartered Institute of Arbitrators
- BSI Committee 525/12, International Offshore Structures Code.
- UK Leader to ISO/TC 67/SC 7, International Offshore Structures Code:
  - WG 5 Floating Structures - Editing Panel
  - WG 3/P3 Fixed Steel Structures - Members Technical Core Group
  - WG 5/P3 Floating Structures - Convenor Insp. & Condn Monitoring
  - WG 7/P3 Jack-Ups - Member Structural Strength
  - WG 7/P10 Jack-Ups – Member Calibration & Acceptance Criteria
- ISO/TC 8/SC 8/WG 3 Ship limit state criteria