

ABOUT THE COURSE

Finite Element Analysis (FEA) is considered as one of the most powerful tools in the assessment of strength of engineering structures, but in order to make use of this tool it is necessary to have background knowledge of the underlying theory. This course is aimed at engineers, of various disciplines, who intend to use the commercially available FEA Packages to analyse structure. Participants are assumed to have knowledge of the basic principles of structural mechanics. Some knowledge of FEM is an advantage, but not essential.

The syllabus will include: General overview of the technique, Finite element types (bars, beams, 2D, 3D, plate and shell elements) and their derivation via constant and higher order shape functions, pre and post processing, basic terminology, range of applications, basic introduction to materials modelling. Multidimensional FE modelling; Constitutive models in FE codes; FE model development; Assembly of stiffness matrices, loading and boundary conditions, material models, convergence; Advanced FE techniques; Modelling of 2D and 3D problems, buckling, non-linear analysis, advanced non-linear material models including failure and damage, explicit methods for dynamic problems; FE modelling accuracy, efficient meshing techniques, convergence and model verification.

WHO SHOULD ATTEND

Engineers and scientists involved in the design, operation and assessment of both onshore and offshore structures and their associated equipment. Personnel from oil companies, consultancy organisations, classification societies and certifying authorities will benefit from attending this course.

PROGRAMME

Wednesday 7 May 2008

08.30- 09.00	Delegate Registration
09.00- 10.30	Finite element discretisation and direct stiffness method <i>John McVee</i>
10.30-10.45	Break
10.45-12.15	Formulations of finite elements-1 <i>John McVee</i>
12.15-13.45	Lunch

REGISTRATION FORM

Name _____
(Please print)

Address _____

Telephone _____

Fax _____

Email _____

I wish to register for the Course at a cost of £650 including course material, lunches and course dinner

I enclose a cheque for £ _____

Please invoice me at the above address

Please send me information on local hotels

Signature _____

Date _____

The completed form together with a Cheque or Demand Draft in pounds sterling payable to *ASRANet Ltd.* should be sent by **01 April 2008** to the following address.

Professor Purnendu K. Das, 47 Westbourne Crescent,
Bearsden, Glasgow G61 4HB, Scotland, UK

No refunds will be possible after 1 April 2008. However, the attendance of a replacement participant is permitted.

COURSE DOCUMENTATION

Course papers will be available in loose bound files.

COURSE FEE

£650 including course material, lunches and course dinner.

TRAVEL POLICIES

ASRANet Ltd Is not responsible for the cancellation charges/ fees associated with cancelling flight for attending this course. Please confirm that the course is running before purchasing the airline tickets.

VENUE

Dept. of Naval Architecture & Marine Engineering,
Universities of Glasgow and Strathclyde,
Henry Dyer Building
100 Montrose Street
Glasgow G4 0LZ, Scotland, UK

CONTACT

Professor P.K. Das,
Direct Tel: 0141 548 3462
Fax: 0141 552 2879
Email: P.K.Das@na-me.ac.uk



A 3-Day COURSE on Finite Element Analysis – A Practical Approach

7 – 9 May 2008
Glasgow, UK

