

ABOUT THE COURSE

The modern trend in selection of materials for high strength-weight ratio is governed by the growing need for low-cost high performance structures. The amount of material has a direct bearing on cost. Therefore the first step towards the cheapest structure is to minimise the weight without disproportionately affecting the fabrication cost.

The main application for materials possessing high strength-weight ratio are in structural engineering, transport and portable appliances. Cost savings is one of the criteria for successful structural engineering and transport application. The use of strong but light-weight members helps to achieve this in that the overall stress levels in a construction are reduced together with handling, manipulation and pay-load cost. These factors are important in such applications as bridges, ships, high speed vessels, rail and transport carriers.

As light-weight applications mean the use of strong but low-density materials, alloys of aluminium are generally used. However, new approaches in fabrication techniques are leading to high use of fibre-reinforced plastics.

This course will deal mainly with structures with FRP/GRP materials and aluminium.

WHO SHOULD ATTEND

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

PROGRAMME

Monday 12 May 2008

08.30 - 09.00	Delegate Registration
09.00 - 10.30	Introduction to Composite Materials <i>Dr. Sandy Day</i>
10.30 - 10.45	<i>Break</i>
10.45 - 12.15	Elastic Properties of Composite Materials <i>Dr. Sandy Day</i>
12.15 - 13.45	<i>Lunch</i>
13.30 - 15.00	Application of aluminium alloy <i>Ian Winkle</i>
15.15 - 15.30	<i>Break</i>
15.30 - 17.00	Stress and Strain in Composite Materials <i>Dr. Sandy Day</i>

Tuesday 13 May 2008

09.00 - 10.30	Materials Selection for Composite Materials I <i>Dr. Sandy Day</i>
10.30 - 10.45	<i>Break</i>
10.45 - 12.15	Analysis of Composite Laminates <i>Dr. Sandy Day</i>
12.15 - 13.45	<i>Lunch</i>

13.45 - 15.15 Design for buckling and strength of Aluminium Structures I
Professor PK Das

15.15 - 15.30 *Break*

15.30 - 17.00 Design for buckling and strength of Aluminium Structures II
Prof. PK Das

18.30 - 21.30 *Course Dinner*

Wednesday 14 May 2008

09.00 - 10.15 Fabrication Methods for Composite Materials
Dr. Sandy Day

10.15 - 10.30 *Break*

10.30 - 11.45 Failure Modes and Failure Criteria
Dr. Sandy Day

11.45 - 13.15 *Lunch*

13.15 - 14.45 Materials Selection for Composite Materials II
Dr. Sandy Day

14.45 - 15.00 *Break*

15.00 - 17.00 Application of composite in Industrial Structures
Dr. Sam Luke, Mouchel

17.00 *Closure*

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 / Demand Draft in pounds sterling payable to **ASRANet Ltd.** should be sent by **12 April 2008** to:

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

No refunds will be possible after 12 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.

You should make your own arrangements for travel and accommodation, although we can help by providing lists of nearby hotels and budget accommodation.

For more information on accommodation in Glasgow please visit www.seeglasgow.com.

VENUE

University of Strathclyde
Lord Todd Conference Room
Lord Todd/Village Office
Weaver Street
Glasgow G4 0NP, Scotland, UK

CONTACT

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



COURSE

Light Weight Structures

12 – 14 May 2008
Glasgow, UK

