

## IIAEM

IIAEM is a collaborative venture between Jain University, SIATI, and leading Aerospace organizations, an initiative never attempted by other Universities. IIAEM has received overwhelming support from academic institutions, R&D laboratories and reputed organizations - like ISRO, HAL, AAI, NAL, Air India, Jet Airways, BIAL, CIAL and many others. Besides involving itself in cutting edge research, the Institute is striving to generate a pool of technical manpower skilled in Aircraft Design, Avionics, Aircraft Maintenance Engineering, Airport Infrastructure & Aviation Management at the UG, PG and Research levels. Within the next few years, the IIAEM is poised to develop into a world-class institution for aerospace research and education.

## SIATI

The Society of Indian Aerospace Technologies & Industries (SIATI) has made pioneering efforts in bringing industry, R&D Centres both in India and abroad together to enhance self-reliance in aerospace technology and manufacturing. In addition to major aerospace players it has now about 300 small, medium and large scale private industries engaged in development and manufacture of aircraft structures, systems/equipment.

### Chief Coordinator

**Shri. Ashok Kumar Sood**, Ex Chief Designer, ARDC - HAL & currently, Consultant with NAL, ADA & HCL Tech at Bangalore (Mob: 9632033889, Email: aksood1949@gmail.com)

### Co-Coordinator

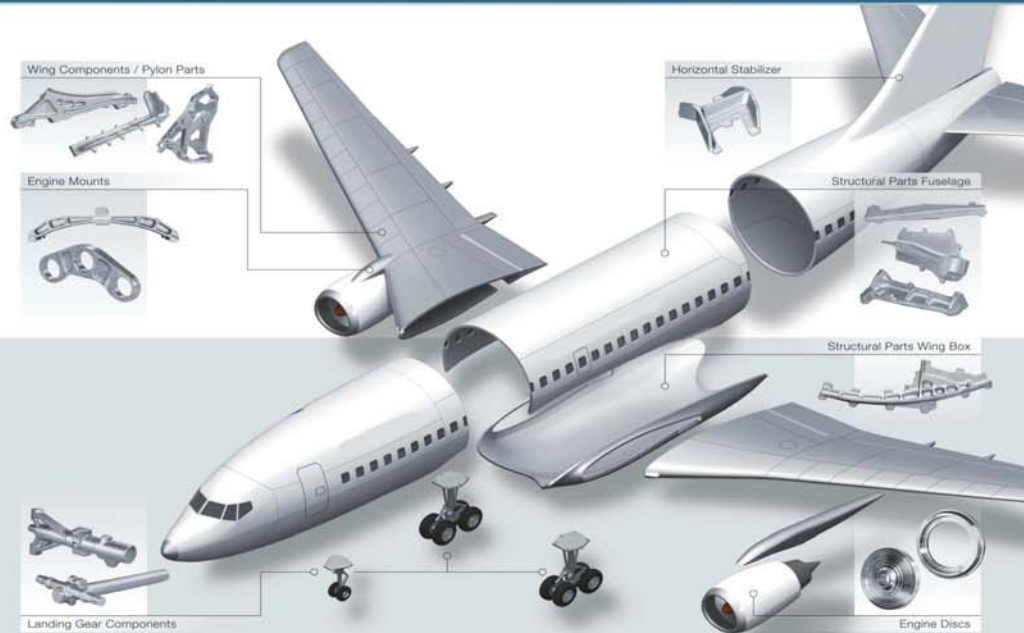
**Prof. Ashok K. Bakshi**, Ex ISRO & Professor, IIAEM, Jain University (Mob: 9448880230, Email: akbakshi2010@gmail.com)

### Please send your nominations to :

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A 3-day Short Course on

# AIRCRAFT STRUCTURES Design, Production & Testing



28<sup>th</sup> Short Course jointly organized by

**International Institute for Aerospace Engineering  
and Management (IIAEM)**

**IIAEM**

**JGI JAIN UNIVERSITY**  
Declared as Deemed-to-be University u/s 3 of the UGC Act, 1956



and

**Society of Indian Aerospace Technologies  
and Industries (SIATI)**

from

**12<sup>th</sup> (Thu.) to 14<sup>th</sup> (Sat.) October, 2017 from 9 AM to 5 PM**

**Venue: Aeronautical Society of India, Old Madras Road  
& Suranjandas Road Junction, (BEML Railway crossing -  
Opp. to HAL Engine Division) Bangalore - 560 075**

## About the Course

- Aircraft Structures continue to engage the focus & attention of designers, manufacturers and users alike. Designing optimized structures, producing them at least possible cost and keeping the life cycle processes & procedures simple and inexpensive, remain the primary objectives of all concerned.
- Understanding the three basic disciplines involved: Design, Production & Testing, is therefore important to develop an overall appreciation of the issues and challenges involved in the development and utilization of aircraft structures.
- This 3-day short course is accordingly aimed at taking the participants through the entire cycle involved: starting right from the user requirement and right upto the realization & testing of aircraft structures, along with the allied subjects.

## Faculty

- Lectures will be delivered by the experts in the field and experienced professionals from Aerospace / Aircraft industries, Research and Development Laboratories, Regulatory Agencies etc.
- Speakers include Dr. A R Upadhyaya - Former Director NAL, Dr. P S Nair - Former Dy Director ISRO, Dr. C M Manjunatha - Head, Structural Integrity Division, NAL, Shri. P Jayasimha & Shri V.N. Divakaran (Ex-Chief Designers ARDC, HAL), Shri J.V. Kamesh - ADA, Course Coordinators and other distinguished professionals from Academia, Industry and R & D Establishments.

## Who would benefit

- Working Aeronautical /aerospace professionals from Aerospace Industry, IT Aerospace Solution Providers, Airworthiness Professionals, Design & R&D Organizations, Defence Services Personnel associated with Aerospace Structures, Academic Scholars, Research Students, Practicing Engineers, Students (graduate / post graduate) etc.

## Registration Fee per Participant

Corporate ----- : ₹ 9,500/-  
Academic, R&D Labs & Govt. Orgns : ₹ 8,500/-  
Students (UG & PG) ----- : ₹ 6,500/-

Fee discount can be  
availed for a group of  
5 participants

(Registration fee includes participation fee, lecture material, working lunch etc. The registration details (Name, Designation, Organization, full contact details) along with DD/Cheque drawn in favor of 'IIAEM', Bangalore should reach our office before 9<sup>th</sup> October, 2017).

## Program Content

- Aircraft Design & Development Cycle: Customer Requirements to Prototype Flights
- Introduction to Airframe & its Major Structural Assemblies & their Role/Function/Loading in Aircraft Flight & Structural Integrity
- Metallic Materials & Processes in A/c Design & Fabrication / Production
- Composites in A/c Structures : Applications, Design & Manufacture
- Material property data generation tests for metallic and composite materials for Aircraft Structures
- Detail Design Aspects including sizing & calculations for Wing, Empennage & Control Surface Structures

Day - 1

- Detail Design Aspects including sizing & calculations for Fuselage and Allied Components & Assemblies
- Mechanical Design of Landing Gear & its Components
- Stress Analysis of Aircraft Structural Components : Processes, Methods & Tools
- Structural Dynamics / Vibration Analysis in Aircraft Design and introduction to aero-servo elasticity requirements
- Structural design philosophies : Safe life, Fail Safe & Damage Tolerance and Fatigue/Fracture Analysis & its Application in Airframe Design
- Structural design considerations for special purpose requirements : Crash, impact, temp. etc & development of associated technologies

Day - 2

- Producing the Aircraft Structural Assemblies : Technologies, Processes & Resources and their Integration
- Quality Control in Fabrication & Assembly of Aircraft Structures
- Static & Fatigue Testing of Aircraft Structures & Components
- Aircraft Vibration Testing & allied experimental evaluation
- Route to Airworthiness & Qualification / Certification of Aircraft Structure and Introduction to Regulatory Standards / Specifications

Day - 3

