

## 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.

### Course Coordinator :-

Dr. A.R. Manjunath, (Retd.) Chief Designer, Helicopter Design, HAL and presently Professor, IIAEM, E: [armanjunath.ambale@gmail.com](mailto:armanjunath.ambale@gmail.com)

### Please send your nominations to:-

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A 3-day short course on

# Helicopter Design & Technology



22<sup>nd</sup> Short Course Jointly organized by

International Institute for Aerospace Engineering  
and Management (IIAEM)

IIAEM

**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

24<sup>th</sup> (Tue) to 26<sup>th</sup> (Thu) February, 2015 from 9 AM to 5 PM

Venue: Aeronautical Society of India, Suranjandas Road &  
Old Madras Road Junction, (Opp. HAL Engine Division &  
near Byappanahalli Metro Station) Bangalore - 560 075

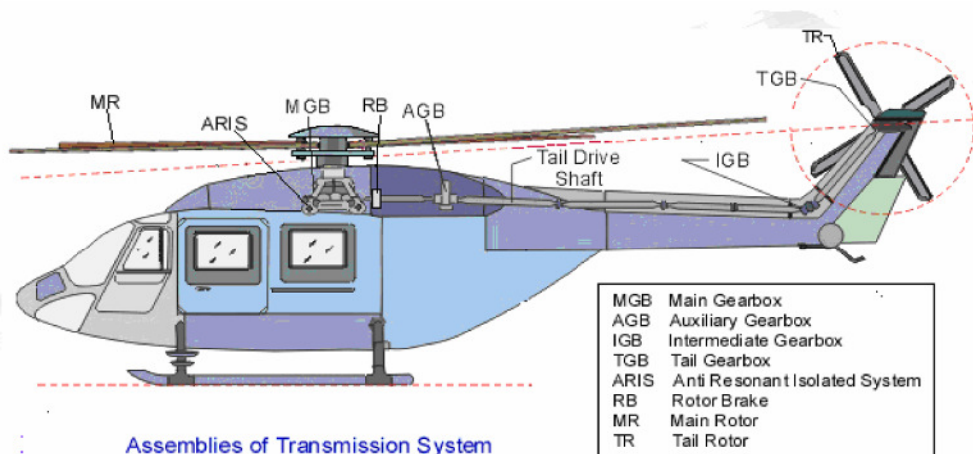
## About the course

Helicopters are highly versatile machines and have unique capability to hover, climb vertically and fly in any forward, backward and sideways. However, these capabilities come at a price due to complex aerodynamic problems, aeromechanical couplings, high vibrations and noise and large power requirements compared to fixed wing aircraft. Despite these issues, due to its uniqueness, have a variety of civil and military applications. Helicopters are also being deployed as Rotary wing Unmanned Vehicle (RUAV). The current development of technology include higher forward speed, low level vibrations & noise, better reliability through less number of parts, use of advanced materials etc.. With the growing market for helicopters, number of organisations is getting involved in research, development and manufacture of helicopters in India. However, there is no matching growth in academic and research institutions to support this growth.

In order to enhance the knowledge of the professionals engaged in helicopter activities and also to expose broad features of helicopter technology to young engineers, a short course is organised covering basics, complexity, current & developing technology and overview of design of helicopters. The course promises considerable value addition to the industry, R&D personnel and also personal involved in manufacture, operations, maintenance and flying of helicopters.

## Speakers

Knowledge and expertise will be shared by the experts from Helicopter industry, Design, Research & Development Organizations and Academicians.



## Topics covered

- Advancement in Helicopter Design & Technology
- Helicopter Basics & Complexities and Performance
- Helicopter Dynamics, Vibration & Vibration Control
- Materials & Composites
- Helicopter Structure & Crashworthiness
- Helicopter Rotor System
- Flying Qualities & AFCS
- Electrical and Avionics Systems of Helicopters
- Overview of Helicopter Transmission System
- Helicopter Mechanical Systems & its Integration
- Ground Testing
- Flight Testing and Flight Safety Requirements
- Airworthiness & Certification

## Who would benefit

- Scientists and Engineers associated with the design, development, manufacturing & testing of Helicopter / Aircraft Engines.
- Faculty and students from Institutes offering courses in Aeronautical / Aerospace and Aircraft Maintenance Engineering.

## Registration Fee per Participant

Corporate .....	: ₹ 9,500/-
Academic, R&D Labs & Govt. Orgns .....	: ₹ 7,500/-
Students .....	: ₹ 4,500/-

Fee discount can be availed for a group of 5 participants

(Registration fee includes participation fee, lecture material, working lunch, etc. The registration form along with DD / Cheque drawn in favor of 'IIAEM', Bangalore should reach our office before 20<sup>th</sup> February, 2015).