

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.

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A 2-day Short Course on

Aircraft Maintenance with Zero Error



26th 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)**

on

20th (Fri) & 21st (Sat) January, 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 is the only machine where the size does not matter, as far as maintenance is concerned. Whether it is a small military aircraft of the size of LCA or the super Jumbo Airbus A-380, all the systems and the components have to be kept in 100% functional mode, all the time whether the aircraft is flying or is on the ground. It is easier said than done. The aircraft flies through extremes of weather, particularly temperatures that vary from +40 to -40 and undergoes tremendous stresses. There are thousands of components, and the malfunction of any one can never be ruled out. Hundreds of technicians handle an aircraft thus anything going wrong or left undone can never be ruled out. Many times requisite spares are not at hand and concessions have to be made taking a calculated risk. Then there is never enough time to do the job in a leisurely fashion and time-related work-pressures are always present. Under these conditions, the chances of anything going wrong are rather high, a possibility that has to be ruled out at any cost. Therefore all-out efforts are made to ensure that aircraft are flight-worthy and safe all the time. This course aims to cover various aspects concerning aircraft maintenance with zero errors.

Faculty

- Lectures will be delivered by the senior Air Force Officers / experienced persons with a minimum of 25 years of field-experience and professionals from Aerospace / Aircraft industries, Research and Development Laboratories, Regulatory Agencies etc.

Who would benefit

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

Registration Fee per Participant

| | |
|----------------------------------|-------------|
| Corporate ----- | : ₹ 6,500/- |
| Academic, R&D Labs & Govt. Orgns | : ₹ 5,500/- |
| Students ----- | : ₹ 4,000/- |

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, contact information) along with DD / Cheque drawn in favor of 'IIAEM', Bangalore should reach our office before 18th January, 2017).

Program Content

The Ambit of Maintenance (Theme Presentation) ▶▶

- Aircraft is like any other 'automotive system' like a bicycle or a car that needs maintenance to keep all the parts and sub-systems in working conditions; the only differences being that it is much more complex and any mid-journey failure would lead to serious and often catastrophic results. Hence the maintenance has to be extensive, elaborate and fool-proof.

Maintenance of Mechanical Systems ▶▶

- An aircraft has tens of major systems like fuel, lubrication, air-cooling and conditioning, hydraulic and pneumatic, fire extinguishing and so on. Each of these systems has sub-systems and components that need a systematic and periodic maintenance plans.

Maintenance of Electronic Systems ▶▶

- In addition to independent electrical/electronic systems, all mechanical systems too require electrical/electronic inputs, more so in modern aircraft. Thus maintenance of these systems assumes added importance.

Non-maintainability and Concessions ▶▶

- Over a period of time, components do become unserviceable and need to be replaced. However there are times when spares are not available thus affecting maintenance. At such times concessions are to be granted, which needs a well-defined and equally well regulated system.

Quality in Maintenance ▶▶

- Even a regularly and periodically maintained system would fail if the 'quality' of maintenance is poor. Aircraft are designed to take a lot of mishandling, but poor quality maintenance over an extended period of time leads to disastrous results.

Maintenance and Time-pressures ▶▶

- Military and civil aircraft both operate under pressure of time. Thus at times, the maintenance personnel are forced to take short-cuts which can result in emergencies and at times accidents. Thus it is important to understand this phenomenon and learn to withstand time-pressures.

Poor Maintenance and Accidents ▶▶

- Every aircraft is handled by hundreds of technicians, and there are bound to be few weak-links resulting in poor maintenance which would ultimately lead to incidents and accidents. All areas of poor maintenance have to be understood and suitably handled.

Health-monitoring and Maintenance ▶▶

- It is physically impossible to monitor each and every critical component; hence health-monitoring systems are being introduced as the aircraft complexity is increasing. It is important to understand the complex relation between these two factors.

