Completed registration form should be sent to the following address:

Prof. Ashok Joshi
Course Coordinator
Department of Aerospace Engineering,
IIT Bombay, Powai, Mumbai – 400 076.

Phone: (022) 25767113
Fax: (022) 2572 2602
Email: ashokj@aero.iitb.ac.in

Important Dates

Last date for receipt of registration:**January 31, 2018**

Notification of acceptance: **February 05, 2018**

Course dates: **February 26 – March 02, 2018**

Notes:

- Incomplete application forms will not be entertained.
- For multiple registrations, copy the form or type in the given format.
- Registration form can be also downloaded from the following course website

http://www.qip.iitb.ac.in/qipcourse2017.php

Venue for Course:

Course will be held at Seminar Hall, Van Vihar Guest House, IIT Bombay.

Date & Time of Registration: February 26, 2018, 9.00 AM at course venue, IITBombay.

REGISTRATION

There is no registration fee for the course. All short-listed candidates are required to confirm their participation by sending a **Demand Draft of₹2000/- in the name of "Registrar IIT Bombay"**. The above amount will be refunded to the participant if he / she attends the course. In case a participant does not attend the course, the above amount will be forfeited.

Eligibility

Faculty members of degree level engineering colleges recognized by AICTE, are eligible to attend the course.

Transport, Boarding & Lodging

Participants are entitled for Second Class (Sleeper Class) or III AC railway fare to and fro by the shortest route from college to IIT Bombay. All participants will be given auto fare from Kanjurmarg/Andheri to IIT on the dates of arrival and departure. Local participants will be paid second class railway fare or BEST Bus fare.

Boarding and lodging will also be provided free of cost. Accommodation will be provided in the students Hostels or Guest House on sharing basis. Since accommodation is limited, family members of the participants cannot be accommodated.

Office of
Continuing Education & Quality Improvement Programme
IIT Bombay, Powai, Mumbai–400 076
Phone: (022) 25767048
Email: qip@iitb.ac.in
For further details: http://www.qip.iitb.ac.in

Quality Improvement Programme (QIP)

Short Term Course

Introduction to Aircraft Flight Mechanics:

FlightMech_18

February 26 – March 02, 2018

Course Coordinator

Prof. Ashok Joshi

Department of Aerospace Engineering

Office of
Continuing Education &
Quality Improvement Programme
Indian Institute of Technology Bombay Powai,
Mumbai - 400 076

Introduction

Aerospace sector in the country has seen tremendous growth and activity over the last 15-20 years and, consequently, has thrown up requirements for manpower that has familiarity with an important discipline i.e. flight mechanics. Further, with the emergence of unmanned aerial vehicles as cost-effective tools for civilian as well as defence application, there is a segment of technologists who, while not aerospace engineers, are interested in the development of fixed wing aircraft as a viable option in this segment. Thus, there is a need to expose non-aero graduates to flight mechanics related concepts, that are integral to the design of fixed wing aircraft. The present short-term course aims to provide an exposure to applicable concepts, methodologies and principles when dealing with flight mechanics of fixed wing aircraft and is also suitable for those aerospace graduates who need a refresher of fundamental principles that govern the flight of an aircraft

Broad Objectives

The present course is an introductory course in the area of mechanics of fixed wing aircraft and thus aims to provide beginners with fundamental concepts and methodologies to understand the motion of such aircraft. The course also provides an in-sight into those aspects of flight mechanics of fixed wing aircraft that are relevant for their design and operation.

Course Contents

Introduction: Definitions, concept of aircraft flight, axes, sign conventions for forces, moments and motion variables.

Longitudinal Motion: Lift & pitching moment models, concepts of aerodynamic centre, trim and stability of flight & role of horizontal tail. Neutral point as a design attribute. Elevator as longitudinal control option, control power estimates. Stick-free stability & stick forces, control for manoeuvres.

Lateral-Directional Motion: Sideslip, rolling and yawing actions, contributions of vertical fin, dihedral angle & wing position to stability. Rudder as directional & ailerons as lateral control devices.

Basic concept of flight dynamics: Frames of references and basic flight dynamic formulation, inertial attitude and velocity, complete flight dynamic equations, forces and moments.

Linearized Dynamic Models & Responses: Longitudinal and lateral dynamic models, Phugoid and short period approximations, Roll, Spiral and Dutch roll approximations, open loop response to control actuation.

Course Evaluation

Successful participants would be awarded `Course Participant Certificate'

QIP Short Term Course on
Introduction to Aircraft Flight Mechanics: FlightMech 18

February 26 – March 02, 2018

Registration Form

Name* (in block letters): (Mr/Mrs/Ms) _____

_____

Designation*: _____

Organization*: _____

Mailing Address*: _____

_____

Mobile*:_____

Email*:_____

Educational Qualifications*:_____

Discipline/Specialization*: _____
Accommodation Required*: YES / NO

Prior Exposure to Flight Mechanics*: YES/NO

Signature of Applicant*:

AICTE ID*: Please click here

Sponsorship & signature of Head of the College / Institute (with date & seal)*.

(IMPORTANT: BY SIGNING ABOVE HEAD OF THE COLLEGE/INSTITUTE CERTIFIES THAT APPLICANT IS A FACULTY MEMBER OF DEGREE LEVEL ENGINEERING COLLEGE RECOGNIZED BY AICTE AND AICTE ID WRITTEN ABOVE IS CURRENTLY VALID) .

* Required fields otherwise application will be rejected.