



# भारतीय प्रौद्योगिकी संस्थान गुवाहाटी Indian Institute of Technology Guwahati

Short Term Course/Workshop/Quality Circle Symposium



## Aerospace Technology: Theory and Practice



Organized by:  
Knowledge Incubation for TEQIP  
Centre for Educational Technology  
URL: <https://www.iitg.ac.in/mech/>

## **ABOUT THE COURSE / EVENT**

This short-term course will provide an excellent opportunity for academicians, budding engineers, scientists and students community to exchange ideas and views in an informal and cordial atmosphere. This will also help in focusing the national efforts to develop the skills for experimental facilities in the laboratories of the parent institutes. The interaction with leading academicians, scientists and experts around the country will enrich North-Eastern communities to initiate new research programs in the area of “Aerospace Technology”.

### **COURSE CONTENTS**

- **Aerospace Vehicles**
- **Aerodynamics**
- **Propulsion**
- **Computational Fluid and Gas Dynamics**
- **Vibration**
- **Rotor Dynamics**
- **Pedagogy**

### **TOPICS TO BE COVERED**

- **Overview on Aerospace Vehicles**
- **Airplane Aerodynamics**
- **Low-speed Wind Tunnel Experiments**
- **Compressible Flows**
- **Hypersonic Flows**
- **Aircraft Propulsion**
- **Measurement Diagnostics in Aero-engines**
- **Ground Test Facilities**
- **Rocket Propulsion**
- **Computational Fluid and Gas Dynamics (CFD/GFD)**
- **Use of CFD/CGD Tools**
- **Vibration**
- **Rotor Dynamics**
- **Pedagogy/Technical Writing**

## **ELIGIBILITY**

The course/event is open to Faculty members/Students (strike off, whichever is not applicable) from TEQIP mapped Institutions/Engineering Colleges/ATUs.

## **COURSE FEE**

No course fee is charged.

## **BOARDING AND LODGING**

As the event will be organized online hence no boarding and lodging is required.

## **IMPORTANT DATES**

The last date for the receipt of duly sponsored application:

By email: scanned copy: 12/02/2021

Hard copy must reach by: 12/02/2021

Intimation of selection: 15/02/2021

## **SELECTION CRITERIA**

Number of seats: 30.

Selection will be based on First cum first served basis.

## **ADDRESS FOR CORRESPONDENCE**

Course Coordinator: Prof. Niranjana Sahoo

Course Coordinator: Prof. Ujjwal K. Saha

## **Department of Mechanical Engineering**

Indian Institute of Technology Guwahati

Guwahati- 781 039, Assam, India.

<https://www.iitg.ac.in/mech>

## **ABOUT TEQIP**

**TEQIP** conceived in pursuance of the NPE-1986 (revised in 1992) by Govt of India as a long term program to be implemented in different phases. After successful execution of TEQIP II, TEQIP III starts from 2017-18 as Central Sector Scheme with a focus on the Low Income States, Northeast, Hill States and Islands. The third phase of TEQIP is also special in a way that it incorporates twinning arrangements between mentee & mentor institutions with an emphasis on Focused Training (PT) and Focused Interventions from IITs in terms of deliverables and accountability. KIT, established at IIT Guwahati under 2<sup>nd</sup> phase of TEQIP is a focal point for training Faculty, Staff and students from TEQIP-III institutions in Knowledge Engineering, Content Creation, Improving Teaching, Pedagogy & Administrative skills in identified niche areas/disciplines.

## **ABOUT KIT**

KIT (**K**nowledge **I**ncubation **C**ell for **TEQIP**) at IIT Guwahati functions as a multi-disciplinary as well as interdisciplinary Innovation Incubation Centre with a focus to impart Knowledge, infusing innovation and leading a path to achieve academic excellence. Its activities are in the area of improving quality of technical education, incubator of Innovative Ideas; implementer of contemporary pedagogy practices and development of Learning Content in Technical institutions while mentoring them.

## **ABOUT IIT GUWAHATI**

### **SNAP OF CAMPUS**

IIT Guwahati campus is spread over a sprawling 785 hectares plot of green land on the north bank of the river Brahmaputra around 25 km from the heart of the city. With hills and vast open spaces, the campus provides an ideal setting for training. Details on how to reach IITG Campus are available on the institute website

**Website: [www.iitg.ac.in](http://www.iitg.ac.in)**

# IIT GUWAHATI

**Application Form for Attending TEQIP-III Online Short-term Course on**  
(please send the filled-up application **by email** to the course coordinator)

Title of Course: **Aerospace Technology: Theory and Practice**

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Name of Course Coordinator (s): **Prof. Niranjan Sahoo and Prof. Ujjwal K Saha**

Dates of the Online course: **17/02/2021 to 21/02/2021**

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1. Name (block letters):

2. Sex: ☐ Male ☐ Female

3. Category: ☐ General ☐ Reserved

4. Highest Academic Qualification:

5. Specialization:

6. Designation & pay scale:

7. Name of the organization:

8. Experience (in years):

(a) Teaching:

(b) Industrial:

9. Address for communication:

Pin code:

Mobile No.:

E-mail:

Place:

Date:

*Signature of the applicant*



## SPONSORSHIP / NOMINATION CERTIFICATE

Prof/Dr./Mr./Ms./Mrs./ .....

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is an employee of our institute and his/her application is hereby  
sponsored/nominated. The applicant is permitted to attend the short-  
term course **"Aerospace Technology: Theory and Practice"**

at IIT Guwahati during **17-21 February 2021** if selected.

I also certify that our institute/college is under the "Institution List" of  
3<sup>rd</sup> phase of TEQIP Project of MHRD.

Date

Signature of Authority

Designation

Official Seal

Selected participants will be informed by e-mail. The duly  
sponsored/nominated application form should be sent by email to the  
course coordinators