

## Focus Areas

### Topics to be covered

- Drone: Overview
- Flight Fundamentals
- Surveying and Mapping with Drones in India
- Types of Drones, Drone building basics and Challenges
- Drones: In Underwater Domain
- Control System for Unmanned Aerial Vehicles (UAVs)
- Computational Fluid dynamics (CFD) Analysis of Flapping Wings
- VTOL drones: Hybrid UAVs
- ATC & Meteorology
- From the Drone Pilot's Perspective
- Design of Unmanned Aerial Vehicle Systems
- Drones for Education and Tinkering
- Drones: Economic and Entrepreneurial Aspects

## Experts

- **Prof. Santosha K. Dwivedy**  
Professor,  
Dept. of Mechanical Engg., IIT Guwahati
  - **Prof. Abhishek**  
Department of Aerospace Engg.,  
IIT Kanpur & Co-Founder and Director at  
EndureAir Systems
  - **Prof. Mangal Kothari**  
Department of Aerospace Engg.,  
IIT Kanpur & Co-Founder and Director at  
EndureAir Systems
  - **Mr. Partho Pratim Dasgupta**  
Senior Fellow, IITG TIDF
  - **Dr. Basudeb Bhatta**  
CEO, GeoTeck
  - **Cdr. Shubhang Murthy**  
Veteran Indian Navy, Airline Captain, &  
a Pilot Trainer
  - **Mr. Chirag Sharma**  
Co-Founder, Drone Destination Pvt. Ltd.  
& Hubblefly Technologies PVT. LTD.
  - **Mr. Dinesh Sain**  
Co-founder & COO at Drona Aviation
  - **Mr. Vijay Raghavan**  
Drone R&D Engineer, Edall Systems
  - **Mr. Ayushman Gogoi**  
Co-Founder, Yantrabot Technologies  
Pvt. Ltd.
  - **Dr. Anshul Garg**  
Faculty Fellow, IITG TIDF.
  - **Dr. Sibananda Mohanty**  
Post-Doc. Fellow (ME), IITG TIDF.
  - **Dr. Masruddin Shaik**  
Research Scholar,  
Dept. of Mechanical Engg. IIT Guwahati.
  - **Ms. Reni Varghese**  
Research Scholar, Dept. of Design, IITG.
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## About Workshop

Drones, also known as Unmanned Aerial Vehicles (UAVs), have gained a lot of popularity because of their wide range of applications, which have beyond the military and entered the agricultural and delivery sectors. Drones are frequently used for firefighting, mapping, surveying, package delivery, search and rescue, surveillance, weather and traffic monitoring, and drone-based photography and filmmaking.



The course will be covered in 13, 1.5 hour lectures that will be given by academic and business specialists. The proposed short term course (STC) is designed for those who are curious about learning the drone technology. It aims to provide answers to questions regarding how a drone works, its design, control systems, common drone features and components, its types, building a quadcopter and assembly procedure, wide range of applications, crucial regulations, and future prospects for drone technology. Additionally, this course will aid in a better understanding of the operation of UAV systems as well as their diverse variety of uses and control features.

## Registration

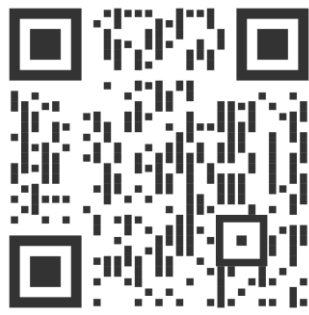
### Fee details:

Indian Participants: 1200 INR  
Foreign Participants: 3500 INR

### Registration Link/QR Code:

<https://forms.gle/1PdiBehHJSKrqQT99>

(Valid till, 10<sup>th</sup> Feb 2023)



### Bank details for Payment:

**Bank:** State Bank of India  
**Beneficiary:** IIT Guwahati Technology Innovation and Development Foundation

**Account Number:** 39579885485  
**IFSC Code:** SBIN0014262



भारतीय प्रौद्योगिकी संस्थान गुवाहाटी  
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

## CICPS and TIH Division IITG TIDF

### Organizes

5-day Online Workshop from

11/02/2023 to 15/02/2023

on

**Drones: Basics & Applications**

## About CICPS

Centre for Intelligent Cyber Physical Systems (CICPS) at IIT Guwahati is established to promote activities focused on Technology and Human Resource Development, located at IIT Guwahati Research Park, Research building with an objective of fostering industry-academia collaboration. Centre consist of nine different laboratories which have been a great support for the students working in different areas at IITG as well for the students of various academic and research institutions of the north east.

## TIH Division IITG

TIH (Technology Innovation Hub) Division IITG TIDF is running various projects to develop technology for societal needs. Underwater exploration system for underwater monitoring and surveillance, intelligent tracking system for drone technology are a few to name. It consists of 9 laboratories with focus on providing the manufacturing facilities of different products useful to build and develop Cyber Physical Systems (CPSs).

Day	Date	10:00 to 11:30 AM	11:40 to 1:10 PM	1:10 to 2:00 PM	2:00 to 3:30 PM	3:40 to 5:10 PM	5:10 to 7:00 PM	7:00 to 8:30 PM
1	11-02-2023 Saturday	NA	<b>Drone: An Overview</b> <b>Mr. Chirag Sharma</b> Founder, Drone Destination Pvt. Ltd. & Hubblefly Technologies Pvt. Ltd.	B R E A K	<b>Surveying and Mapping with Drones in India</b> <b>Dr. Basudeb Bhatta,</b> CEO, GeoTeck	<b>Drone Operations</b> <b>Mr. Vijay Raghavan</b> Drone R&D Engineer Edall Systems	B R E A K	<b>Drones Types, Drone building basics and Challenges</b> <b>Dr. Anshul Garg</b> Faculty Fellow, IITG TIDF & <b>Mr. Ayushman Gogoi</b> Co-Founder, Yantrabot Technologies Pvt. Ltd.
2	12-02-2023 Sunday	<b>Drones: In Underwater Domain</b> <b>Prof. S. K. Dwivedy</b> Dept of ME IITG & <b>Dr. Sibananda Mohanty</b> Post-Doctoral Fellow, IITG TIDF	<b>Control System for UAVs</b> <b>Prof. Mangal Kothari</b> Department of Aerospace Engineering, IIT Kanpur Co-Founder and Director at EndureAir Systems		<b>CFD Analysis of Flapping Wings</b> <b>Dr. Masruddin Shaik &amp; VTOL Drone</b> <b>Ms Reni Varghese</b> EIR IITG TIDF	<b>Flight Fundamentals</b> <b>Mr. Shubhang Murthy</b> Veteran Indian Navy, Airline Captain, Pilot Trainer and Flight Safety Expert		<b>ATC &amp; Meteorology</b> <b>Mr. Shubhang Murthy</b> Veteran Indian Navy, Airline Captain, Pilot Trainer (aircraft and synthetic flight simulator) and Flight Safety Expert
3	13-02-2023 Monday	NA	NA		NA	<b>From the Drone Pilot's Perspective</b> <b>Mr. Vijay Raghavan</b> Drone R&D Engineer Edall Systems		<b>Design of UAV Systems</b> <b>Prof. Abhishek</b> Department of Aerospace Engineering, IIT Kanpur Co-Founder and Director at EndureAir Systems
4	14-02-2023 Tuesday	NA	NA		NA	<b>Drones: Education &amp; Tinkering</b> <b>Mr. Dinesh Sain</b> Co-founder & COO at Drona Aviation		<b>Drones: Economic and Entrepreneurial Aspects</b> <b>Mr. Partho Pratim Dasgupta</b> Senior Fellow, IITG TIDF
5	15-02-2023 Wednesday	NA	<b>Valedictory Session</b> <b>Chief Guest:</b> <b>Prof. G. Krishnamoorthy</b> Dean II&SI & Vice Chairperson, IITG TIDF		NA	NA		NA