Event Report

1. **Name of Event:** Drone Workshop - I
2. **Nature of the Event:** Workshop
3. **Date:** 7th Mar, 2026
4. **Time:** 10:00 AM to 4:00 P.M.
5. **Venue:** Advanced Drone Lab, GSFC University, Vadodara
6. **Organized by:** GSFC University, GUIITAR Council, SSIP, Startup Gujarat and IIC (MoE GoI)
7. **Number of Participants:** 15, Annexure – 1
8. **Speaker:** Mr. Yatharth S.Bhatt
9. **Major discussions in the event:**

The GUIITAR Council organized a Workshop on "Drone Technology" on 7th March, 2025, from 10:00 A.M. to 4:00 P.M. at the Advanced Drone Lab, GSFC University.
Major discussion on overview of Remotely Operated Vehicles (ROV) Technology

- Introduction to underwater robotic systems used for inspection, exploration, and research.
- Basic architecture including tethered communication, propulsion systems, cameras, and control mechanisms.
- Applications in marine research, offshore industries, and underwater infrastructure inspection.
- Unmanned Ground Vehicle (UGV) Technology
- Fundamentals of land-based robotic vehicles designed for remote or autonomous operation.
- Discussion on mobility systems (wheels, tracks), sensors, controllers, and communication modules.
- Applications in defense, surveillance, industrial inspection, and disaster response.

- Unmanned Surface Vehicle (USV) Technology
- Overview of autonomous or remotely operated vehicles used on water surfaces.
- Key components such as propulsion systems, GPS navigation, sensors, and remote control systems.
- Applications in environmental monitoring, maritime security, and hydrographic surveys.
- Miniature Robotics Technology
- Concept of small-scale robotic systems designed for research, education, and specialized operations.
- Discussion on compact electronics, microcontrollers, sensors, and embedded systems integration.
- Potential applications in indoor automation, swarm robotics, and micro-inspection systems.
- Detailed Introduction to UAV Technology
- In-depth understanding of drone architecture including frame, flight controller, sensors, and propulsion systems.
- Overview of flight dynamics, stabilization mechanisms, and control algorithms (basic concept of PID control).
- Introduction to drone communication protocols, telemetry, and ground control systems.

10. Learning outcomes of the event:

1. Understand the fundamentals of robotic vehicle technologies, including Remotely Operated Vehicles (ROV), Unmanned Ground Vehicles (UGV), Unmanned Aerial Vehicles (UAV), and Unmanned Surface Vehicles (USV).
2. Gain conceptual knowledge of miniature robotics systems and their applications in modern automation, surveillance, and research.
3. Develop a detailed understanding of UAV technology, including drone architecture, flight principles, navigation systems, and communication methods.
4. Identify and understand the functions of key drone

components, such as motors, propellers, Electronic Speed Controllers (ESC), flight controllers, GPS modules, batteries, and telemetry systems.

5. Acquire practical exposure to drone assembly, including hands-on experience in assembling 3D-printed drone frames for both multicopter and fixed-wing platforms.
6. Understand the integration of electronic components in drones, including wiring, power distribution, and basic system configuration.
7. Recognize real-world applications of robotic and drone technologies across sectors such as agriculture, surveillance, disaster management, research, and industrial inspection.
8. Develop foundational skills in drone technology and robotics, enabling participants to explore further learning, research, and innovation in unmanned systems.

11. Photos:


GUIITAR COUNCIL PRESENTS
DRONE WORKSHOP
Unlocking Hidden Opportunities
Battery
Receiver
Video Transmitter (VTX)
Antena (VTX)
FPV Camera
Fight Control (FC)
Speed Control (Esc)
Frame
Motor
Unmanned Ground Vehicle
Remotely Operated Vehicle
Mini Robot Technologies
Unmanned Aerial Vehicle
Discover the future of tech at the
Drone Technology – where innovation takes flight!
Build 3D drone frames | Understand core drone parts
10.00 AM TO 04:00 PM
7th March 2026
Advance Drone Lab
For Registration Scan the QR


GPS Map Camera
Vadodara, Gujarat, India
94mw+83j, Fertilizer Nagar, Gsfc, Sursi, Vadodara, Gujarat 391750, India
Lat 22.386348° Long 73.145347°
Saturday, 07/03/2026 02:14 PM GMT +05:30
Google


GPS Map Camera
Vadodara, Gujarat, India
94mw+83j, Fertilizer Nagar, Gsfc, Sursi, Vadodara, Gujarat 391750, India
Lat 22.386348° Long 73.145337°
Saturday, 07/03/2026 03:35 PM GMT +05:30

12. Participant Details:

- Total number of registrations : **19**
- Attended Students : **10**

Sr No	**Name of Participants**	**Enro No**
1	Soham Sane	25bt05040
2	Ateeb Ahmed	25bt04210
3	Tatva Shah	25BT04217
4	Manav Rajai	24sc06020
5	Dev Rajput	24bt05024
6	SAKSHI JADIYA	25BT04036
7	Shiveen Loiya	25BT04219
8	Pullakanam Lakshmi keertana	25bt04114
9	Palak Ramrakhyani	25bt04119
10	Dave Pushti	25bt04019

13. Feedback

Pre Session :

Sr No	Name of Participants	Enroll No	Program	Year	Why are you interested in participating in this Drone workshop?	Please describe any previous experience you have with drones or anything similar. (Write NA if you are a beginner)	Which Drone categories interests you the most?
1	SAKSHI HITESH KUMAR JADIYA	25BT04036	B.Tech CSE	1st Year	We participated in IIT roorkee e-summit and our topic was implementation of drones for surveillance in railways, so while researching for this, I developed interest in drones that's why.	Yes, So I controlled drone in one of competition in techfest iit bombay so practically this is one and above mentioned research for drones	Unmanned Aerial Vehicle (UAV)
2	Dev Rajput	24BT05024	B.Tech F&EHS	2nd Year	To learn about drone and gain knowledge about it and other technology used for it	NA	Unmanned Aerial Vehicle (UAV)
3	Rudra	25bt041668	B.Tech Chemical	1st Year	.	.	Unmanned Surface Vehicle (USV)
4	PARMAR JENIL	23bca050	BCA	3rd Year	I am interested	Beginner	Remotely Operated Underwater Vehicle (ROV)
5	Ramrakhyani Palak Vikramkumar	25BT04119	B.Tech CSE	1st Year	I worked on a project related to deploying drones for railway operations, where I learned about their applications. This developed my interest in drone technology, and I would like to learn more about it through this workshop.	NA	Unmanned Aerial Vehicle (UAV)
6	Pullakanam Lakshmi keertana	25BT04114	B.Tech CSE	1st Year	I want to explore and learn more about the drone	Na	Unmanned Aerial Vehicle

							(UAV)
7	Gurjit Singh Bhamra	25BT04011	B.Tech CSE	1st Year	I want to know about drones n its technology	NA	Unmanned Aerial Vehicle (UAV)
8	SRIKRISHNAN	236	B.Tech F&EHS	faculty	To learn basics	NA	Unmanned Aerial Vehicle (UAV)
9	PRANJAL KAMLESHKUMAR RANA	25BT04D249	B.Tech CSE	2nd Year	I want to learn about this technology.	NA	Unmanned Aerial Vehicle (UAV)
10	Siddhi Shah	25sc02074	B.Sc. (Hons.) Biotechnology	1st Year	For gaining knowledge	Noo	Remotely Operated Underwater Vehicle (ROV)
11	Devansh Rajan	24bt04143	B.Tech CSE	2nd Year	I like flying drones.	Drone flight program and drone building program at iit bombay.	Unmanned Aerial Vehicle (UAV)
12	Heena Gohil	25BT04D257	B.Tech CSE	2nd Year	I love building and working with drones. More interested in flying drones.	Drone Flying program at Techfest IIT bombay.	Unmanned Aerial Vehicle (UAV)
13	Shiveen Loiya	25BT04219	B.Tech CSE	1st Year	I want to learn about drones and all the places that they are or can be used in	NA	Unmanned Aerial Vehicle (UAV)
14	Dave Pushti	25BT04019	B.Tech CSE	1st Year	With the government's Drone Shakti initiative and the rapid growth of UAV in India, I think it is a critical tool for me to learn.	Na	Unmanned Aerial Vehicle (UAV)
15	Ateeb Ahmed	25BT04210	B.Tech CSE	1st Year	I want to learn the working of drones and understand the mechanical, electrical and programming aspects of a drone	NA	All of the above
16	Manav Rajai	24SC06020	B.Sc. Data Science	2nd Year	To learn new things	NA	All, since i have 0 knowledge of every category

17	Tatva Shah	25BT04217	B.Tech CSE	1st Year	Interest in FPV	FPV	Unmanned Aerial Vehicle (UAV)
18	Darshil DhavalBhai Valera	25BT04221	B.Tech CSE	1st Year	To learn about Aerial technology	NA	Unmanned Aerial Vehicle (UAV)
19	Maitri Shah	25BT04056	B.Tech CSE	1st Year	Want to know more about the sector	UGV project in hackathon	Unmanned Ground Vehicle(UGV)

Post Event Feedback :

Name of Participants	Enro No	School	Prog.	Ratings	How engaging and interesting did you find the workshop?	Was the duration of the workshop (10:00 AM to 4:00 PM) appropriate for the amount of material covered?	What was your favorite part or biggest takeaway from the workshop?	What other technologies or advanced robotics topics would you like the GUIITAR Council to host workshops on?	Would you recommend our future workshops to a friend or classmate?	Any suggestions for improving future events?
Soham Sane	25bt05040	SOT	B.Tech FEHS	⭐⭐⭐⭐⭐Excellent	Very Engaging	Yes	Hands on simulation		Yes	
Ateeb Ahmed	25bt04210	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Very Engaging	Yes	When the mentor began diving into the specifications of drones.	Robotics with image processing.	Yes	N/A
Tatva Shah	25BT04217	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Engaging	Yes	To learn about the	Robotic Operating	Yes	

							payloads of the drone	system		
Manav Rajai	24sc06020	SOS	B.Sc.Data Science	⭐⭐⭐⭐Very Good	Engaging	Yes	Drone simulation		Yes	
Dev Rajput	24bt05024	SOT	B.Tech FEHS	⭐⭐⭐⭐⭐Excellent	Very Engaging	Yes	Learned what i a drone, types of drone, components of drone and simulator		Yes	No
SAKSHI JADIYA	25BT04036	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Very Engaging	Yes	The case studies and future opportunities was my biggest take away I would definitely brainstorm on possibilities		Yes	
Shiveen Loiya	25BT04219	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Very Engaging	Maybe	The real life drone simulation that we did during the end of the session with the drone controller	AI	Yes	It was good already

Pullakanam Lakshmi keertana	25bt04114	SOT	B.Tech CSE	⭐⭐⭐⭐Very Good	Very Engaging	Yes	By my own I operated the drone technology which was really great		Yes	
Palak Ramrakhyani	25bt04119	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Engaging	Yes	Getting to try the drone flying simulator and getting to know the how the parts of drone actually function		Yes	
Dave Pushti	25bt04019	SOT	B.Tech CSE	⭐⭐⭐⭐⭐Excellent	Very Engaging	Yes	The architecture of drone		Yes	