Goa University
Goa Business School
In Collaboration with
Center for Drones Applications
Indian Institute of Technology Goa

**Activity Report on *5-Days Drones Bootcamp* from 9th to 13th Feb. 2026**

1.	**Title of the Event:**	5-Days Drones Bootcamp: Fundamentals of Drone Systems and AI/ML for Drone Vision
2.	**Date and Time**	9th February to 13th February 2026, from 10:30 AM to 4:30 PM
3.	**Mode of conduct**	Offline; Venue: CS9, 2nd Floor, Block – F, Goa Business School, Goa University
4.	**School**	Goa Business School (Discipline of Computer Science and Technology) in collaboration with the Centre for Drone Applications, IIT Goa
5.	**Details of the Event**	This intensive professional development program was a high-level synergistic collaboration between the **Centre for Drone Applications (IIT Goa)** and the **Discipline of Computer Science and Technology (Goa University)**. The boot camp was designed to bridge the gap between theoretical research and practical entrepreneurial applications in UAV technology, utilizing expertise from IIT Goa's leading researchers to train students and faculty at GBS
6.	**Number of faculty attended**	10

7.	The number of students who attended	52
8.	The Objective of the Event/Activity/ Program	The primary objective was to provide an intensive academic and hands-on learning experience in: • **Fundamentals of Drones:** Understanding architecture, classification, and flight mechanics. • **AI/ML Integration:** Learning to apply Neural Networks and Deep Learning for drone vision and object detection. • **Practical Assembly & Operation:** Gaining experience in drone hardware, mission planning, and live flight operations. • **Security & Countermeasures:** Exploring UAV detection (Radar, Acoustic, RF) and neutralization strategies
9.	Description of the Event/Activity/ Program	The workshop commenced on **Day 1** with an inaugural ceremony featuring dignitaries including **Senior Prof. Purva Hegde Desai (Dean, GBS)**, **Shri Ramrao S. Wagh (Vice Dean - Academics)**, **Prof. B.P. Sarath Chandran (Vice Dean - Research)**, and **Dr. Sharad Sinha (Chief Investigator, IIT Goa)**. The technical sessions began with Dr. Sharad Sinha explaining drone architecture and flight dynamics (pitch, roll, yaw), followed by Dr. Subhojit Sarkar discussing military and civilian UAV applications. **Day 2** shifted focus to machine learning, with **Dr. Clint P. George** introducing neural networks and cost functions. This was followed by a practical lab session led by **Mr. Vipin Gautam**, where participants applied these concepts using laptop-based libraries. **Day 3** delved into computer vision with **Dr. Shitala Prasad**, covering image analysis for biometrics and agriculture. **Mr. Vipin Gautam** conducted a second lab session focused on "Drone Technology for Traffic Rule Violation" using object detection and tinyML. **Day 4** featured advanced topics in autonomous systems by **Dr. Anuj Abraham** and hardware design by **Mr. Harsh Kurdekar**. While Dr. Rajamohan was unable to attend, **Dr. Subhojit Sarkar** covered UAV communication challenges. The day culminated in a **live flying demonstration** of engineered drones in the GBS parking lot. **Day 5** concluded the program with a **final knowledge assessment**, participant feedback sessions, and a **valedictory ceremony** where certificates were distributed by the coordinators

10.	Benefits or Outcomes of the Program Conducted	Participants gained conceptual clarity on UAV classifications and hardware components (ESCs, PDBs, Flight Controllers). • Students acquired hands-on skills in drone assembly and the use of mission planners for autonomous flight. • The program successfully demonstrated the integration of AI/ML for real-world drone applications like surveillance and traffic monitoring
12.	Enclosures with Report	Flyer, Photos, Attendance sheet

Name with signature of the coordinator(s):

Hanumant Redkar
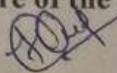
Shri Sarvesh Velip

Shri Shubham P. Borkar

Designation: Assistant Professors, GBS

Signature:
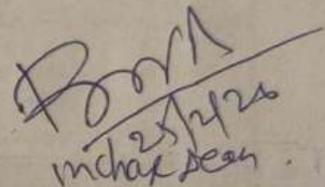
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Goa Business School,
Goa University

Seal of the School

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Drones Boot Camp (9-13 February, 2026)

Fundamentals of Drone Systems and AI/ML for Drone Vision

Centre for Drone Applications, IIT Goa
in collaboration with
Discipline of Computer Science and Technology,
Goa Business School, Goa University

Course content
- Fundamentals of drones
- Live Flying Sessions
- Introduction to Learning Problems and Neural Networks
- Drone Imaging and Challenges
- Drone Communication Protocols and Applications

Convenors
Sr. Prof. Purva G. Hegde Desai, Dean, GBS
Shri. Ramrao S. Wagh, Vice Dean (A), GBS

Coordinator/s
Shri. Hanumant H. Redkar, DCST, GBS
Shri. Sarvesh Velip, DCST, GBS
Shri. Shubham P. Borkar, DCST, GBS
Contact - dean.gbs@unigoa.ac.in

Centre for Drone Applications
IIT Goa

Key Speakers
Dr. Sharad Sinha, Dean, IIT Goa
Dr. Neelakandan Rajamohan, IIT Goa
Dr. Clint Pazhayidam George, IIT Goa
Dr. Shitala Prasad, IIT Goa
Dr. Subhojit Sarkar, IIT Goa
Dr. Anuj Abraham, IIT Goa
Shri. Vipin Gautam, IIT Goa
Shri. Harsh Kurdekar, IIT Goa
Contact - drones.center@iitgoa.ac.in

Essential Prerequisite

Basic experience in C / C++ / Python and electronics

GOA BUSINESS SCHOOL

Venue: CS9, 2nd. Floor, Block – F, Goa Business School, Goa University.

Photo Gallery

Attendance Sheet

Drone's Boot Camp (9-13 February, 2026)

Fundamentals of Drone Systems and AI/ML for Drone Vision

Centre for Drone Applications, IIT Goa in collaboration with
Discipline of Computer Science and Technology,
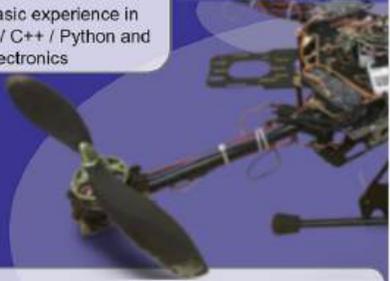Goa Business School, Goa University

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Date: 09-02-2026 to 13-02-2026