DRONE TECHNOLOGY, AI & CYBER SECURITY REPORT

30-Hour | 2-Credit Course

Department of Information Technology & AIML
Guru Nanak Khalsa College, Matunga, Mumbai

Academic Year: 2026–2027
Duration: 28th August 2026 to 5th October 2026
Total Duration: 30 Hours (2 Credits)
Participating Classes: M.Sc. Information Technology (IT) – Semester III and M.Sc. Information & Cyber Security (ICS) – Semester III
Total Participants: 64 Students
Organising Department: Department of Information Technology & AIML
Industry Partner: Get Set Learn (GSL), an Arvind Mafatlal Group Company
Faculty Coordinators: Mrs. Pinky S. Panda (HoD) and Ms. Gauri Chavan
Support: Faculty and Non-Teaching Staff, Department of Information Technology & AIML

Executive summary

The Department of Information Technology and Artificial Intelligence & Machine Learning successfully organised and completed a 30-hour, 2 credit course titled **"Drone Technology, AI & Cyber Security"** for students of **M.Sc. Information Technology (IT) and M.Sc. Information & Cyber Security (ICS), Semester III**.

The programme was conducted in collaboration with **Get Set Learn (GSL), an Arvind Mafatlal Group company**, with expert trainers delivering all four modules on the college campus. GSL provided the necessary equipment, software and learning materials to facilitate practical, hands-on training.

The course covered four emerging technology areas: Drone Technology, AI-based eBook Creation, AI Filmmaking and Cyber Security Applications. Students gained practical exposure to drone operations and programming, generative AI tools for creating digital content, AI-powered filmmaking, and cybersecurity practices.

The programme emphasised experiential learning, enabling students to develop individual projects and practical outputs through each module. It provided students with an opportunity to enhance their technical competencies, creativity, problem-solving abilities and awareness of emerging technologies.

A total of **64 students** participated in the programme. Upon successful completion, students received a certificate.

Item	Detail
Programme	Drone Technology, AI & Cyber Security (M.Sc. credit course)
Department	Information Technology, Guru Nanak Khalsa College

Item	Detail
Duration	30 hours: Drone Technology (12), AI eBook Creation (5), AI Filmmaking (8), Cyber Security Applications (5)
Students enrolled	64
Certification	Joint College + GSL Certificate of Completion; M.Sc. credit

Programme overview

The course packed several high-demand fields into one credit and was designed for complete beginners: it assumed no prior drone, coding, design or security experience. It moved from hardware (drones) to generative AI for content (eBooks and film), and ended with how to secure the systems and tools students had just used.

- **Format:** 30 one-hour sessions, lab-first and hands-on from the first day
- **Approach:** learning by building: every module ended in a student-made output (a flight, an eBook, a film, a security assessment)
- **Delivery:** GSL expert trainers, with drones, software and materials
- **Partner credentials:** GSL (an Arvind Mafatlal Group company) is India's official VEX Robotics distributor and partners with IIT Guwahati, Qualcomm and Arduino Education. The AI filmmaking module draws on GSL's VideoGenX programme, built with Prismix Studios, Mumbai

Delivery summary

All 30 hours were delivered to 64 students across four modules, in this order.

Module	Hours	What students did	Output
1. Drone Technology	12	Learned motors, sensors, GPS and flight physics; planned missions in simulator software; flew, calibrated and programmed a nano-drone in supervised slots	A drone mission each student flew
2. AI eBook Creation	5	Learned AI prompting and refined vague prompts into specific ones; generated text and images with ChatGPT, Gemini and Canva AI; laid out pages with CreateBookAI and Napkin.AI	An AI-created eBook per student (PDF/PPT)
3. AI Filmmaking	8	Worked through the production pipeline: logline and script, storyboard and visuals, AI video generation, voice and music, edit and export	An AI short film
4. Cyber Security Applications	5	Inspected network traffic with Wireshark; set up secure logins; worked in an ethical-hacking sandbox; ran phishing and social-engineering	A security assessment and hardening checklist

Module	Hours	What students did	Output
		simulations; looked at drone risks such as spoofing, open WiFi and default passwords	

Learning outcomes

Each completing student now holds a four-part portfolio of their own work, plus the credit and certificate. These are concrete artefacts students can show in interviews and placement drives.

In skills terms, students can now operate and program a drone, write effective prompts, produce publishable written and video content with generative AI, and recognise and defend against common cyber threats.

Assessment results: [average score / pass rate, if recorded]. Student projects of note: [names or titles of 2–3 standout projects].

Portfolio item	What it shows
Drone mission	A mission the student planned, programmed and piloted (takeoff, hover, landing)
AI-created eBook	A complete eBook (title page, illustrated content pages, closing page) written and designed with AI tools
AI short film	A film taken from script and storyboard through AI-generated video, voice, music and final edit
Security assessment	A risk assessment and hardening checklist covering drones, AI tools and everyday online threats

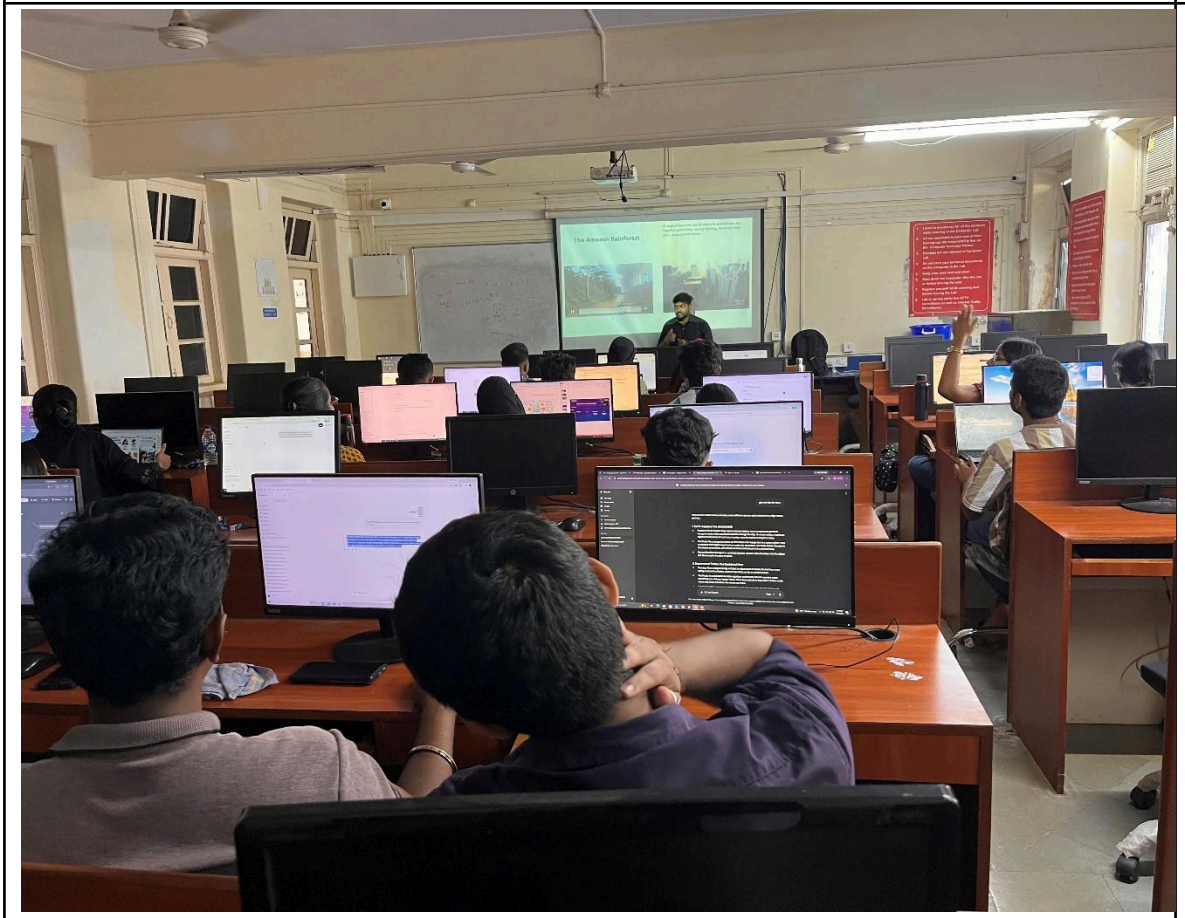
Observations and feedback

Every module ended with something students made and could show, which kept the course practical rather than theoretical. Ending on cyber security let students look back at the drones and AI tools they had just used through a security lens.

- **What worked well:** [e.g. live flying slots, eBook showcase, film screenings, the hacking sandbox]
- **Student feedback:** [overall rating, and one or two representative comments]
- **Challenges and how they were handled:** [e.g. lab network access, flying-space availability, scheduling]

Photo and Video Gallery





Video Links:

1. Drone Technology – Practical Demonstrations:
2. AI eBook Creation & AI Filmmaking – Student Projects:
3. Cyber Security Applications – Practical Sessions:

Report Submitted by

Department of Information Technology & AIML
Guru Nanak Khalsa College, Matunga, Mumbai