



Department of Electronics and Telecommunication Engineering

Industry Institute Collaboration

A-1 Fence company started its journey in 1998 in Mumbai, India. The company's foundations were built on to revolutionise the fencing market by providing high quality & innovative perimeter security fence solutions. A-1 Fence started off by fence manufacturing and exporting concertina and with persistence & commitment towards customer satisfaction, it experienced exponential growth in global markets with a wide range of perimeter security products offerings. We strive hard to provide best perimeter security fencing solutions in demarcation, road safety, soil conservation and stabilization.

A-1 Fence invited the College to collaborate on engineering projects. The projects involve proprietary technologies and product information. A-1 Fence wishes to share confidential information with the receiving Party so that students can undertake the projects and gain industry-relevant experience.

Following third year B. Tech Electronics and Telecommunication students have been selected by A1 fence projects after the interview process:

Sr no.	Name of students	Project Description
1	Arshia Shah	Project title: Autonomous Drone Integration with PIDS for First-Level Intrusion Verification This project focuses on designing an autonomous surveillance drone integrated with a Perimeter Intrusion Detection System (PIDS) for automated security response. When an intrusion is detected, the system triggers a drone mission in which the drone autonomously takes off from a docking station that also functions as a charging station, navigates to the intrusion location, and provides real-time aerial video for situational awareness. The system uses Ultra-Wideband (UWB) localization based on the DWM1001C development kit to achieve high-precision positioning and navigation, particularly in GPS-denied or cluttered environments. UWB-based distance measurements from multiple anchors are used for accurate position estimation, enabling reliable autonomous navigation and precision landing. The project aims to demonstrate a complete end-to-end automated intrusion verification system with minimal human intervention.
	Jash Sheth	
	Disha Patel	
	Aakash Tambwekar	
2	Manav Malnika	Project title: HawaHawai 3000 This project presents the design and development of a 12-inch FPV (First-Person View) drone optimized for stability, agility,

	Kushagra Borase	and high-quality real-time video transmission. The drone integrates a brushless motor propulsion system, a high-efficiency power distribution network, a flight controller featuring advanced stabilization algorithms, and an FPV camera with a low-latency video transmission module. The goal is to develop a compact aerial platform suitable for indoor and outdoor tasks such as industrial inspection, search-and-rescue exploration, and educational research. The system focuses on cost efficiency, modularity, and ease of repair—key aspects desirable for engineering prototyping and field operations. The results demonstrate a high-performance drone capable of carrying small payloads while maintaining stable FPV flight characteristics.
	Nabhij Kharade	
	Meet Shah	

The Memorandum of Understanding (MOU) has been signed on 26th November, 2025 between A1 fence Products Company Pvt. Ltd. and Electronics and Telecommunication department of SVKM's Dwarkadas J. Sanghvi college of Engineering.