		PROJECT PROPOSAL FORMAT
1	TITLE OF THE PROJECT	UNMANNED AERIAL VEHICLE FOR CRIME DETECTION AND RESCUE
2	RESEARCH GAP	Existing technologies in this domain of UAV based crime and rescue need improved sensor integration, autonomous navigation algorithms, and human-drone interaction studies. Energy efficiency and endurance enhancement, as well as robust communication networks along with cost-efficiency are essential. Ethical considerations regarding privacy in crime detection and real-time data analysis for decision support are critical. Ensuring interoperability with existing systems and assessing environmental impacts are crucial for responsible UAV deployment.
3	OBJECTIVE	The objective of this project is to create an advanced, comprehensive, and highly effective security and rescue system. This system aims to significantly enhance safety across the entire area or unit space by providing real-time surveillance, monitoring capabilities and person tracking.
4	METHODOLOGY	The autonomous drone system is designed for search, and surveillance operations. This versatile system operates in two distinct modes, each tailored to address critical scenarios with advanced technology. Mode 1: transforms the drone into a vigilant security patrol vehicle, monitoring particular areas sent via server as GPS coordinates and identifying crimes that have happened. This proactive approach enhances security and reduces risks to human personnel. Mode 2: employs cutting-edge computer vision and facial recognition algorithms to identify and locate individuals in designated areas, providing critical information to ground teams for prompt action, especially in search and rescue missions. Key components include the Flight Controller for stability, Raspberry Pi for data processing and communication, Arducam Camera for video capture and efficient power management with a Battery and Battery Management System (BMS). This system revolutionizes rescue operations, and crime surveillance, contributing to public safety and efficient response

		strategies. It marks a significant advancement in autonomous drone technology for a safer and more secure world.
5	ABSTRACT	Unmanned Aerial Vehicles (UAVs) are revolutionizing rescue operations, and crime identification. In crime management, UAVs equipped with cameras play a pivotal role in Search operation efforts, swiftly locating persons and transmitting real-time data to ground teams. They also aid in damage assessment, providing a bird's-eye view of crime happening areas. These drones establish temporary communication networks and monitor environmental conditions to support effective response strategies. For rescue operations, UAVs offer rapid deployment capabilities and assist in tracking missing persons, even in challenging terrains enhancing the efficiency of rescue missions. In the realm of crime detection, UAVs serve as valuable tools for aerial surveillance, capturing the crime areas, capturing criminal activities, and assisting in decision management. They aid in locating suspects or missing persons, collect crucial evidence at crime scenes, and can even be deployed for crowd control during large events. Throughout these applications, adherence to regulations, privacy considerations, and professional operator training are vital. The continuous evolution of drone technology, with improved sensors and autonomous features, further enhances their effectiveness in these critical roles, ultimately contributing to public safety and the preservation of lives.
6	TOTAL BUDGET	50,000 INR UAV frame*1 Flight controller *1 Rotor blades *4 ESC *4 BLDC motor*4 battery*1 battery charger*1 battery BMS *1 lidar sensor*1 Raspberry pi 3 *1 Arducam Camera 12mp*1 first aid kit*1 GSM & GPS module*1
7	COLLABORATION DETAILS	NIL