Patent Search

Invention Title	Low-Cost Surveillance Mini Fpv Drone
Publication Number	20/2026
Publication Date	15/05/2026
Publication Type	INA
Application Number	202641057342
Application Filing Date	06/05/2026
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	MECHANICAL ENGINEERING
Classification (IPC)	B64C 39/02, G05D 1/10, B64D 47/08, G05D 1/00, H04N 7/18

Inventor

Name	Address	Country
O.V.Subramanyam	Assistant Professor, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
SK Baji	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
R Uday Sanjay	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
M Yuva Deepak	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
M Sivaathmika	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
R Durga Prasanthi	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
SK Asma	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India
P.S.V.Nikitha	Student, Department of CSE(AIML), Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India

Applicant

Name	Address	Country
Vishnu Institute of Technology	Vishnu Institute of Technology, Sri Vishnu Education Society, Vishnupur, Bhimavaram, Andhra Pradesh 534202	India

Abstract:

The present disclosure relates to systems and methods, and provides a Low-Cost mini FPV drone system (100) for aerial surveillance and disaster monitoring configu operate through a coordinated interaction between user inputs, sensors, and control components to enable stable flight and real-time video transmission. The Low-C drone system (100) includes a mini FPV drone system (100), an FPV camera (116), a video transmitter (118), and an inertial sensor unit (120). The mini FPV drone syste configured to operate through a coordinated interaction between user inputs, sensors, and control components to enable stable flight and real-time video transmissi response to user commands via a transmitter. This configuration enables remote aerial surveillance and disaster monitoring without risking human lives.

Complete Specification

Description:TECHNICAL FIELD

[001] The present invention relates to unmanned aerial vehicles and drone technology, and more particularly to a Low-Cost Surveillance Mini FPV Drone comprising brushless motor (104), a quadcopter propeller set (108), and a drone frame (110) for aerial surveillance and disaster monitoring applications.

BACKGROUND

[002] Unmanned aerial vehicles, commonly referred to as UAVs or drones, have gained considerable attention across various sectors including disaster managemer environmental monitoring, search and rescue operations, and safety inspection. Quadcopter-type UAVs, which rely on differential motor speed to achieve controlle have emerged as a particularly versatile platform owing to their ability to hover, take off and land vertically, and maneuver in confined spaces. Conventional aerial surveillance platforms typically employ brushless motors, counter-rotating propeller arrangements, and lightweight structural frames to achieve airborne operation Despite these technical foundations, the translation of such platforms into genuinely accessible, low-cost, and field-deployable systems suitable for disaster monito remained challenging.

[003] Disaster-prone environments present unique and demanding operational requirements. First responders and monitoring personnel require immediate situat awareness across geographically dispersed and structurally compromised areas. Ground-based surveillance methods, including manual inspection and stationary c networks, may be physically impractical in such scenarios owing to collapsed infrastructure, flooding, hazardous gases, or other environmental hazards. The tempo inherent in ground-level assessment may result in inadequate response times during time-critical emergency operations. There accordingly exists a recognized ope gap between the speed at which disaster conditions evolve and the capability of conventional monitoring approaches to respond

View Application Status