

Smart Drone and Integrated Mobility Systems



Problem Statement: Drones find use in precision agriculture, smart delivery systems, connected systems for automated public safety, as well as tracking and surveying for military and cyber security applications. They are the need of the hour. AI-based attacking/battle/police drones and internet-centric operation (internet of battle things) and various air, ground and sea services like air taxis and flying cars are also gaining importance. However, currently, no smart integrated drone ecosystem exists in India. The researchers are developing a drone-based ecosystem that can be used in social, industrial, commercial, security and defence applications. They are addressing the need for a sustainable and intelligent automated ecosystem for smart, secured and safe drones in integrated and interconnected mobility systems to solve critical and high-risk problems and high-impact projects.

Uniqueness of the Solution: The researchers are working to develop

an entire drone-based, sustainable ecosystem in India for smart and trustworthy drones for use in integrated mobility systems. The ecosystem will intelligently interconnect various drones, other mobility systems, people, processes, and data.

Current Status of Technology:

The various subsystems within this ecosystem are currently in various stages of development (TRL 1 to 5), including prototype development, testing completed in the laboratory, and field testing in relevant environments.

Societal Impact: Drone ecosystems have a variety of applications in defence, agriculture, delivery, public safety, disaster management, and emergency service applications, all of which have widespread societal impact. They also encourage entrepreneurship, societal welfare resulting in economic growth and employment generation.

Patent(s): Nil

Relevant Industries: Defence, Smart Mobility, Aerospace, Security.

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