

TWO DAY WORKSHOP ON

# DRONE TECHNOLOGY



ORGANISED BY

**Department of Mechanical Engineering**

November 03-04, 2022



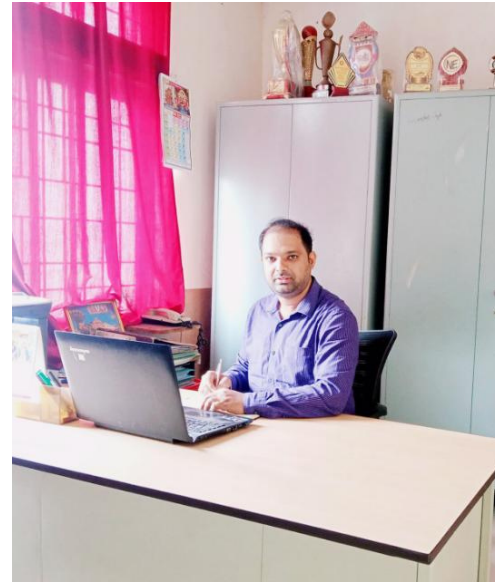
Autonomous





## Vision

- To train the students to be professional and competent Mechanical Engineers to take up the challenges in the society and strive continuously for excellence in education and research



**Dr. P.N.E. Naveen**  
Head of the Department

## Mission

- To provide quality education for successful career and higher studies in Mechanical Engineering
- To emphasize academic and technical excellence in the profession
- To take up consultancy and research in solving the problems related to Mechanical Engineering

## PROGRAM EDUCATIONAL OBJECTIVE (PEOs)

The PEOs are the educational goals that reflect Professional and Career Accomplishments that a graduate should attain after 4 – 5 years of his/her graduation.

The graduates of Mechanical Engineering of NSRIT will

1. PEO #1: Continue to excel in professional mechanical related careers or chosen career path that apply 21<sup>st</sup> century skills following ethical standards and practices contributing towards sustainable development by providing feasible and viable technical solutions catering the real-time engineering problems
2. PEO #2: Engage in experiential learning through their professional practices and adapt to changing skills sets in the pursuit of lifelong learning
3. PEO #3: Continue to demonstrate the skill sets that are very much essential to work successfully for a rewarding career in a multidisciplinary setting

# What is a Drone ?

A drone is an unmanned aircraft. Drones are more formally known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems. Essentially, a drone is a flying robot that can be remotely controlled or fly autonomously using software-controlled flight plans in its embedded systems, that work in conjunction with onboard sensors and a global positioning system (GPS).

## How do drones work?

Drones have two basic functions: flight mode and navigation.

To fly, drones must have a power source, such as battery or fuel. They also have rotors, propellers and a frame. The frame of a drone is typically made of a lightweight, composite material to reduce weight and increase maneuverability.

Drones require a controller, which lets the operator use remote controls to launch, navigate and land the aircraft. Controllers communicate with the drone using radio waves, such as Wi-Fi.

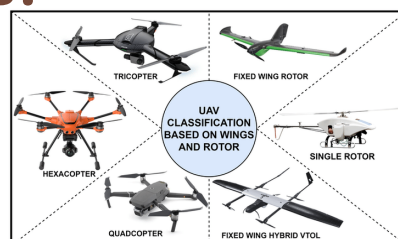
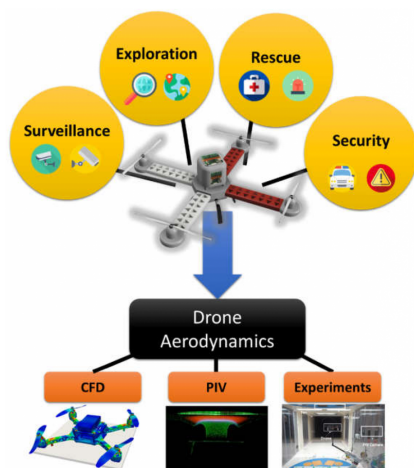
## What types of drones are available?

There are two main types of drone platforms:

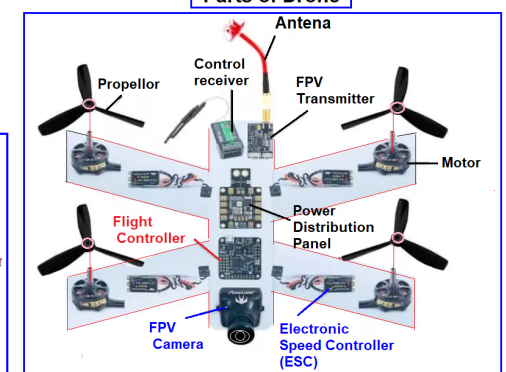
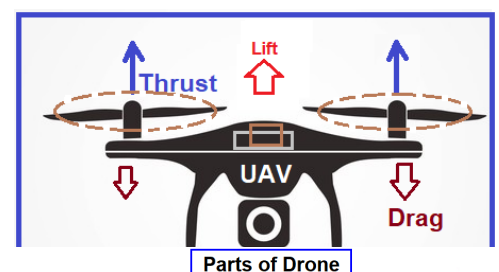
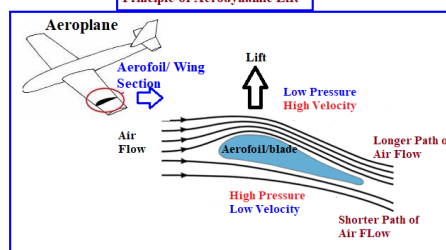
rotor, including single-rotor and multi-rotor, such as tricopters, quadcopters, hexacopters and octocopters; and fixed-wing, which include the hybrid vertical takeoff and landing (VTOL) drones that don't require runways.

Nonmilitary drones are generally either personal and hobbyist ones or commercial aircraft.

## Why use drones?



Principle of Aerodynamic Lift





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