

**TECHNICAL EVENTS
ROBOMANIA- 2018
GULZAR GROUP OF INSTITUTES KHANNA
LUDHIANA**

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Quadcopter Mania

A quadcopter, also called a quadrotor helicopter, quadrotor is a multirotor helicopter that is lifted and propelled by four rotors. Quadcopters are classified as rotorcraft, as opposed to fixed-wing aircraft, because their lift is generated by a set of rotors (vertically oriented propellers).

Unlike most helicopters, quadcopters use 2 sets of identical fixed pitched propellers; 2 clockwise (CW) and 2 counter-clockwise (CCW). These use variation of RPM to control lift and torque. Control of vehicle motion is achieved by altering the rotation rate of one or more rotor discs, thereby changing its torque load and thrust/lift characteristics.

More recently quadcopter designs have become popular in unmanned aerial vehicle (UAV) research. These vehicles use an electronic control system and electronic sensors to stabilize the aircraft. With their small size and agile maneuverability, these quadcopters can be flown indoors as well as outdoors.

Due to their ease of both construction and control, quadcopter aircraft are frequently used as amateur model aircraft projects. For the fun sake these quadcopters are engaged in racing competitions so as to have entertainment and to elaborate the technical skills of the competitor. Here the unmanned quadcopters and the teams will show their potential.

Eligibility: B.Tech., Polytechnic and +2NM students are eligible.

Rules/Specifications

- Each team will consist maximum of 5 (Five) members.
- Team members in any case will not be allowed to take help/technical assistance from any outside source during the race.
- During the competitions the quadcopter are required to complete all types of tracks/formations.
- There are no mandatory dimensions of quadcopter hence it is not subjected to the types of race in which it is competing.

JUDGEMENT

- Judgment of this event will be clearly on the bases of criteria of race and with the fulfilment of the discipline regarding to rules

Student Co-ordinator

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