



UDAAN

Introduction:

On the occasion of Pryaukti 2019, for the first time ever in Haldia Institute of Technology we are organizing the Event Aeromodelling contest “**Udaan**”.

Problem Statement:

The competition requires participants to design and fabricate an RC Aircraft (no ready-made aircraft like RTF, ARF, BNF etc. are permitted) and perform a set of tasks. Propellers, Motors, ESC, Servos, Receiver and Transmitter are allowed as off-the-shelf items. The arena will be an open ground.

There will be two rounds in the competition as follows:

Round 1: Gliding round

Round 2: Low-Pass

1. Gliding round

A good measure of the design of an aircraft is in rate of climb and gliding time. In this round, participants are required to make their aircraft (without payload) to climb for 20 seconds. After this, they need to perform a dead stick flight (throttle=0 or Gliding). The aircraft however can be manoeuvred while it is gliding. The teams will be graded based on the glide time of the aircraft as mentioned below.

τ = Total flight time (powered flight time + glide time) in seconds

τ_{\max} = maximum recorded flight time amongst all the participants.

$$\text{Round 1 Score} = \frac{\tau}{\tau_{\max}} \times 30$$

1st round is not qualifier round and all the participants will qualify to the second round irrespective of their scores. Winners will be selected after the evaluation of Final scores.

8. Metal propellers are not allowed.
9. The models can have powered take-off with a landing gear or can be launched manually by a person standing at ground level.
10. Aircraft should be built from scratch by the participants of the team and should not be a purchased model.
11. A team member can't be a part of more than one team.
12. Bring your college/student I-Card at the time of competition.
13. Any of the above-mentioned rules, if found violated, teams would not be allowed to participate in the competition.
14. Each team is advised to bring all components for their aircraft although they are coming from same college. Any delay due to sharing of components might result in your team losing the time available for your attempt or lose the entire attempt itself.
- 15. Decision Taken by Judges and Organizers will be final and binding for all.**

NOTE: Rules Are tentative at this stage and will be updated in the official website of Prayukti 2019 when finalized.

