# Club Aeromodelling IIT Kanpur

"Its neither theory nor experience, its curiosity, patience, hard work and determination which make something airborne."

# ACTIVITIES

- Lectures and workshops on Glider,
  Water Rocket, Hovercrafts, RC Planes,
  RC Helicopter etc.
- Projects
- Regular Flying Sessions
- Air-shows
- Participation in National and International Events
- Club GDs and treats...







# ACHIEVEMENTS

#### **National Level**

Techkriti'13 - Secured 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> place in the event Hover rush.

Techfest '13 IITB – Secured 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> in event Powerless.

**Techfest'13 IITB** – Secured **3**<sup>rd</sup> **and 4**<sup>th</sup> in Design Challenge.

# ACHIEVEMENTS

#### **International Level**

SAE Aero design East 2013 (Texas, US): among 75 teams around the globe:



- ✓ 5<sup>th</sup> in Flight score
- ✓ 5<sup>th</sup> in Payload fraction
- ✓ 8<sup>th</sup> in Overall score
- ✓ 1<sup>st</sup> among Asian teams

> Participated in NASA System Engineering Award.

## SUMMER PROJECTS

Various kinds of RC Aero models and Inter club projects are taken as summer projects.

Some of the previous projects include -

#### **Canard plane**





#### **Spherical Bot**

#### VTOL (Vertical Takeoff and Land)





STOL (Short Takeoff and Land)



# Hovercraft (capable of forward and backward movement)



**Twin copter** 

## OTHER SUMMER ACTIVITIES

- Lectures on basics of Aircraft design and electronics used.
- We will be conducting RC Plane Building cum Flying
  Workshop during the summer (open participation).
- Water Rocket workshop for PRAYAS students.

#### SOME PROJECTS SUGGESTED ARE:



**Robo seed** is single wing (lift producing surface) model. Inspired by Maple seed.

**RC ornithopter:** A flying machine which depicts the flying mechanism of birds i.e. flapping of wings





Model Rocket with self deployment Parachute system: We will be using self made motors and ignition fuel .If this goes successful we will take this project to the next level as the guided missile.

#### Long range and high endurance aircraft.



#### SAE AERODESIGN 2014:

- Micro Class: Design and Fabricate an aircraft with minimum empty weight and lift maximum payload.
- Advance class: Design and Fabricate the most efficient aircraft capable of dropping a three pound (3 lb) object from a minimum of 100ft off the ground.





**OUTBACK CHALLENGE 2014**: One has to design and build an aircraft that can detect the dead man lying in the field, send its coordinates using GPS and drop an object on that dead man accurately and return to Airstrip

## TIPS.....

- We expect you to come up with some good and innovative project ideas.
- ✓ Visit the club and its website to get an idea of available materials.
- ✓ Take help from the senior members of the club.

# THANK YOU

## CONTACT US.

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