



**SAHYADRI**  
COLLEGE OF ENGINEERING & MANAGEMENT  
MANGALURU



**AEROPHILIA**  
MAY 13-14 2016

NATIONAL LEVEL AERO MODELLING COMPETITION



**CHALLENGERS**  
INVENT · INNOVATE · IMPROVISE

## Introduction

Aerophilia 2016 has given wings to innovative thinking to aero modelling enthusiasts there by igniting the passion for the future of Aeronautics in India. The motive behind organizing such a competition is to spread and teach the young talented minds to explore the new era of aeronautics to foster development of the nation. Two day competition was held at Sahyadri and the participating teams were expected to design a radio controlled aircraft with the limitations regulated in its dimension and the power system. The aircraft were validated by its maneuverability and maximum payload carrying capacity, which was tested in two successive rounds. Special attraction was the air shows by nationally and internationally reputed radio flyers.

IITs and NITs- the elite institutions participated in the competition.

The event was inaugurated by three eminent personalities Mr. A.V. Aravindh, a Controls Engineer and presently working as a Systems Engineer for the Light Combat Aircraft, LCA-Tejas Program at Aeronautical Development Agency, Mr. Chinmaya, an Electronics Engineer working on the avionics systems of LCA-Tejas at ADA and Dr. Pavana Prabhakar, Assistant Professor, Department of Mechanical Engineering, University of Texas at El Paso, Texas. Mr. Mehtab Hussain, Aerotrix Engineer and Mr. Gopa Kumar Team Lead, Aerotrix were part of the inaugural ceremony. The invited guests opened the competition by flagging off the Aerophilia Flag in the aircraft controlled by Mr. Vishal Rao, Member, Mangalore Flying Club. The valedictory functions which was held in the presence of our Minister Mr. Kimmaney Ratnakar, Minister of Education Govt. of Karnataka, Dr. Hansraj Alva renowned Physician of Mangalore, Mr Aravind Aircraft, Mr. Chimey Electronics Engineer in Avionics System.



## WINNERS

**Champion:** Team Pushpak-IIT Kanpur

**1st Runner up:** Vaibhav-AISSMS,Pune

**2nd Runner up:** Vishaan- Manipal School

**Consolation prizes**

1. Team Enterprize-NITK,Surathkal

2. Omkar V Rao-6th Mt Carmel School



TEAM PUSHPAK (IIT KANPUR) RECEIVING THE PRIZE



CHAMPIONS WITH THE DIGNITARIES

## Inauguration and Technical Talk

The warm morning of aerophilia was witnessed by mass of students and special dignataries from india as well as from United states. The inauguration of the event was done in a mesmerising manner. An RC plane with the flag of Aeophilia was set to go for its flight in order to complete the inaguartion. The official inaguration function included the talk by all the eminent personalities and then the time had come up to lauch the inagural RC Aircraft. Miss Pavana Prabhakar initiated the flight ehich was then carried out by Mr Vishal. The plane took off with all its glory and had given a start to the ever waited aerodesign and modelling event which is one of its kind in India. A new feather for sahyadri and chal-lengers. Also the beginning of new era. The enthusiast crowd made the huge noise aplauding the inaguration.

The main event aerodesign which is the major attraction of aerophilia began soon after the inaguartion ceremony. The prelims were focused on checking the planes primary requirements which was monitored by the team members of challengers. The eager young minds lined up for the inspection with ecstasy. The charismatic faces and over-whelming smile banded the attention of the dignataries. They interacted with the partici-pants with great joy. All the participants were very much eager to know about the various aspects of aeromodelling from the pioneers.



The students from various schools and colleges had come to sahyadri to become a part of this event. The students got an oppurtunity to interact with IITs and NITs which gave them the information about their life style and the experience in IIT and NIT. That was a good experiece for the students. The various students intended to join IITs and NITs but have not got a chance to join these elite institution got a chance to understand the atmosphere of those institutions. The particpans were able to get the contacts from the IITs and NITs. The interaction have dealt with the topics like “difficultes to overcome during a gate examination”, The possibilities in IIT and NIT. The subjects and depth of the subjects taught in IITs and NITs.” Several more personal experiences were also shared by them. Overall the students learned lot new concepts from them.



IITs Interaction with students



Mr. A.V. Aravind  
Controls Engineer, ADA interaction  
with students

The scientists from Aeronautical Development Agency (ADA) shared their experiences on Light Combat Aircraft, LCA-Tejas Program. They gave vital information about the real time working with aircrafts and its practical difficuties and solutions. They gave the information regarding the future of Light Combact Aircrafts and its effect to the life of the people. Many students were inspired by the talk, it was followed by a qestion section in order to rectify the doubts of the students.



Dr. Pavana Prabhakar Interaction with Students

## Airshows and Attractions

The major attraction of the event were the airshow which consisted of huge planes which is entirely different from whatever airshows that happened in mangalore. The jet engine were one combact plane which fly similar to a professionally built fighter planes. A talk on jet plane was given by J P, a professional flyer. There were various other RC plane shows conducted by different flyers from all over India. It gave a different experience for the engineering students. They were given the demonstration on the aerodynamics through these shows. There were planes capable of doing aggressive manuevers which gave a mesmerising show for the students. The





There were many other events like paper plane, Chuck glider etc along with the major events. these events gave the students from various schools to be a part of the aerodesigning with their limited skills. The students came up with various ideas in order to compete in a much engineered way for the event. The overall aim of the event was to create that awareness and to let students approach the problem in a more creative and engineered manner..

## Valedictory Function



The aerodesign event consists of two major rounds. In the first round the competitors are supposed to carry the payload and drop it in the assigned place from a adequate height. The competetors used different techniques among one was the wrapping of coins and carying it as payload. The competetors were free to use the process of carying payload in the smartest way they can. The planes were designed for the aerophilia event exclusively because of the event problem statement. That gave the competetors a new way of participating in an event. The participants were supposed to do various engineering calculations inorder to participate for this particular event.



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## **CHALLENGERS**

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