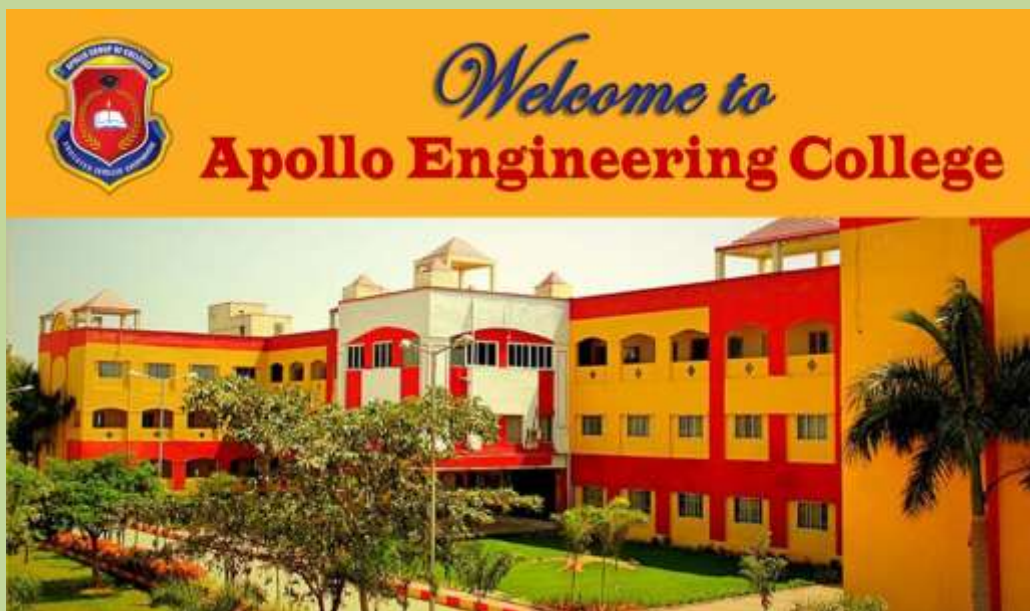


**AEC- AERO**  
**NEWSLETTER**

**JUNE 2015**  
**TO**  
**MAY 2016**

**ACTIVITIE OF THE DEPARTMENT OF**  
**AERONAUTICAL**





## **APOLLO ENGINEERING COLLEGE**

(Approved by AICTE, Govt. of India, New Delhi and an ISO 9001:2008 certified institution)

Mevalookuppam, Near Queensland Theme Park, Chennai-602 105

# **DEPARTMENT PROFILE:**

## **Department of Aeronautical Engineering**

Education is the process of continuous learning and improvement. In the present scenario, students should be trained up with professional qualities apart from book education. Hard work and commitment are essential to achieve your goals.

At Apollo Engineering College, we nurture professionalism apart from bookish education. We also aim at improving student's practical knowledge from our various corporate tie-ups

If you have a love for aircrafts and the designs behind them, explore this course. It includes study in the areas of Aerodynamics, Structures, Propulsion, Aircraft Performance, Stability and Control, Avionics, Flight Vehicle Design; Aircraft Systems & Flight testing. The students get hands on experience through lab experiments in addition to the other engineering disciplines.



### **Laboratories:**

The Department has 3 labs worth of 50 Lakhs with all equipments as per Anna University norms for UG programme.

### **AERODYNAMICS LAB:**

At our aerodynamics lab the students get an understanding of nature of flow past various models through flow visualization techniques. The nature of pressure distribution over various aerofoil and body shapes is explained. The wake and boundary layer survey provide information on the momentum thickness and displacement thickness.

### **PROPULSION LAB:**

We have Experiments related to aircraft engines, force measurements through wall jets and measurement of speed of flame propagation is checked.

## **AIRCRAFT STRUCTURES LAB:**

This lab provides the student with the practical knowledge of the various theorems, like reciprocal theorem, buckling phenomenon of columns, WAGNER beam stresses information. The vibration of beam equipment provides information on types of nodes and vibration patterns.

Hope you can enjoy the experiential learning at our AEC-Aero Department and can find Places in NAL, HAL, ISRO, QUEST global, TECH MAHINDRA and so on through our campus recruitments.



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## **ACTIVITIES OF THE DEPARTMENT OF AERONAUTICAL ENGINEERING (June 2015 to May 2016)**

**Event Title: Fresher's Fair**

Date: 09/07/2015

Guest of honor: **Mr. Shikhar Chaturvedi**

Venue: Seminar Hall

### **Summary:**

The department has organized the Fresher's fair event for 2<sup>nd</sup> year students and conducted a technical quiz.





**Event Title: First Year Inauguration 2k15**

Date: 12/08/2015

Guest of honor: **Prof. Dr. A. Elayaperumal** DIRECTOR, Centre for Students & Affairs, Anna University

Venue: Sakuntallamal Auditorium

**Summary:**



Dr. A. Elayaperumal inaugurated the freshers day and it was followed by orientation about AERO department given by staff and senior students of the department.



Senior student addressing their juniors about their department

**Event Title: AERO students @ International Women's Day Celebration:**

International Womens day was celebrated in college. Various events were organised for the faculties and students of AEC such as: Rangoli competition, Mehendi competition, Culture dressing, Cookery without flame, Vegetable carving and more Fun games.

Dr. Jayanthi kalanithi, Managing Director of Vee Care group of Hospitals was the chief guest for the event. The winners were awarded during the valedictory function.





**Event Title: Annual Sports meet 2K15**

Date: 29<sup>th</sup> August 2015

Chief Guest: Mr.Muthuraja .I.P.S

**Summary:**



AERO final year student GANESAN won the Individual Champion 2K15

**Event Title: Seminar**

Date: 26<sup>th</sup> October 2015

Venue: Aero Smart Room

**Summary:**

The department has organized seminar session to the third and final year students about signal transfer in space. Heads from various department guide our students



## INDUSTRIAL VISIT :

Students were taken to the Industrial visit cum Tour at DRDO at Hyderabad.





**Students inspect the aircraft**



**Students inspect the aircraft avionics system**



**Demonstrate on fuel filling into the aircraft**

**Event Title: AERO students @ Pongal Celebration**

Pongal 2K16 was celebrated at AEC on 9<sup>th</sup> Jan 2016 with pot rice to Farmer. AERO Apollites rejoiced in their tradition!



AERO Department celebrating Pongal 2K16

## PLACEMENT DAY:

DATE: 08 April 2016

VENUE: Auditorium, Apollo Engineering Campus



## Memorandum of Understanding



Apollo Engineering College & The Department of Aeronautical Engineering is proud to announce that we have Signed Memorandum of Understanding with AeroTriX, Bangalore.

AeroTriX is founded by a group of Aerospace and Mechanical Engineering graduates of IIT Kanpur working towards increasing skills and employability of Engineering Students in India. AeroTriX bagged various prestigious awards including:

- 2nd Best Business Venture Award, Ideas, IIT Kanpur
- 30 Most Promising Start-ups, Next Big Idea, IIM Bangalore
- Runner up of United India Growth Challenge 2013 for enterprises with Social Impact
- Entered into Limca Book of Records – 2014

As a part of Career Development Programme- AEC has Joined hands with AeroTriX to conduct Workshops on Glider Design, Mini Air Vehicle (RC Aircraft), Delta Wing Aircraft Design, Fabrication and Flying, Biplane Design, Fabrication and Flying, Ornithopter Workshop (Certified by Ornithopter Zone, USA), RC



Hovercraft Workshop so that the aeronautical engineering students will have an experiential learning.

All the students will receive participation certificates. Apart from participation certificate, awards are provided to participants for excellence in design, fabrication and innovation in the workshops. The recipients will be provided with certificate of merit and their names will be put up on the website at [www.apollocolleges.in](http://www.apollocolleges.in) and [www.aerotrix.com/participant-awards](http://www.aerotrix.com/participant-awards).

The Department of Aeronautical Engineering Is keen on bringing out the Design talents from the students hence they can seek a good place in Core companies such as NAL,HAL,ISRO,DRDO,QUEST GLOBAL ,Tech Mahindra.

## **FACULTY PUBLICATIONS**

### **1. International Journal Papers:**

- N.Rajamurugu et.al., "Analysis on High Speed Jet Flow Characteristics using CFD", International Journal of Mechanical Engineering Research, Volume 3,Number 6,2013, ISSN 2249-0019.**Impact factor:0.132**
- N.Rajamurugu et.al.,"Analysis on High Speed Jet Flow Characteristics using CFD", Advances in aerospace Science and applications, Volume 3,Number 3,2013, ISSN 2277-3223. **Impact factor:0.132**
- N.RajaMurugu et.al “Computational analysis of Vortex generator jets in LP turbines” International Journal Of Engineering Research and Technology(IJERT) volume I, Issue 8, October 2012, ISSN NO:2278-0181.
- N.RajaMurugu et.al. “MODELING AND FLOW ANALYSIS OF MODERN FIGHTER AIRCRAFT CONFIGURATION USING -CFD", International journal of pure and applied research in engineering and technology, Issue 3, March 2013.

### **International Conference Presentations:**

- Participated and presented a paper on DETERMINATION OF PRESSURE OVER LOW RISE GABLE ROOF BUILDING in 10<sup>th</sup> ASIAN SYMPOSIUM ON FLOW VISUALISATION at SRM UNIVERSITY, 2010.
- Participated and presented a paper in International conference on IMPACT TEST ON COMPOSITE MATERIALS at ICAME'10 at VELTECH University, Chennai, 2010.
- Participated and presented a paper in International conference on WATERFLOW CHANNEL USEFUL TOOL FOR FLOW VISUALISATION at ICAME'10 at VELTECH university ,Chennai,2010
- Participated and presented on VORTEX GENERATOR JETS EMPLOYED ON LP TURBINES at ICAME'10 at VELTECH University, Chennai, 2010.

- Participated and presented a paper on “Experimental investigation of a swept wings with control motions” at International conference ICMOC2012 at Noorul Islam University, Nagercoil,2012.

#### National conference Papers:

- Participated and presented a paper on nonlinear gust response of an airplane wing at national level conference 3C’s at MVJ college of engineering Bangalore,2013.
- Participated and presented a paper on “Experimental investigation of a swept wings with control motions” at national level conference at KLN Engineering College, Madurai,2012.
- Participated and won the second price in national level technical symposium at Hindustan University, September 2011.
- Participated and presented a paper on non linear gust response of an airplane wing at national level conference 3c’s at MVJCE Bangalore, Feb. 2013.
- Participated and won the second price in national level technical symposium at Hindustan University, September 2011.
- Participated and presented a paper on VORTEX GENERATORS at national level conference at ANNA UNIVERSITY OF TECHNOLOGY, TIRUNELVLEI, 2011.