Aero modeling Training program Conducted by Department of Aeronautical Engineering

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UAV Club Event

" Training program on Aero Modeling Conducted by Akash Model Aero- Coimbatore"

A student training program was organized by the UAV Club, Dept. of Aeronautical Engineering, and conducted by Akash Model Aero Ltd, Coimbatore. And the program was scheduled and got approved from the concerned authorities to be conducted on the 6th, 7th and 8th of November 2015 at Smt. Rajalakshmi Jayaraman Seminar Hall.

The module for the workshop was 'RC Aircraft', which would teach and provide a hands on training for the students to design, fabricate and test a model radio controlled fixed wing aircraft.

The registration fee for the participants were fixed as Rs. 700 per head, because as mentioned in the workshop proposal from the company, Akash Model Aero- Coimbatore.

The registration for the event was closed on 29th of October 2015, and in total 120 students paid the registration fee and registered themselves for the workshop. Among them 95 were Students from Aeronautical,13 were from Computer Science, 6 each from Mechanical and Chemical.

On day one, the inauguration ceremony for the event as scheduled at 09: 15 AM, but the trainers from Akash Model Aero reached MVJCE campus late at around 10:00 AM, due to the traffic on the route. Hence the inauguration ceremony started at 10:10 AM.

The inaugural function was presided by Prof. S. C. Gupta, HoD, Aeronautical Engineering and Mr.Prakash Engineer, Akash Aero, from Coimbatore, Pvt. Ltd.

The workshop was officially started with lighting the lamp, by Prof. S. C. Gupta and Mr. Prakash, followed by the briefing about the workshop, delivered by the chief coordinator, Mr. Vineeth Tom, AP/ AE. Later Mr.Prakash, briefed about the procedures to be followed and the structure of the workshop as well as the benefits for the participants. By this the inaugural function completed and the

workshop's session 1 started at 10: 20 AM.

The first days session of the workshop started at 10: 20 AM and went on till 04:00 PM. Mr. Prakash, given a very effective and interactive presentation on the theory behind RC Aircraft design. He covered the topics such as airfoil selection, basic aerodynamics, different configurations of wing in an RC Aircraft and other relevant topics. Also he has instructed the students on how to register themselves for obtaining the online certificate from Ksyfi Education Labs. The entire day one was well spent with in dept knowledge about the aerodynamics of the flight and its stability and control

On day two Baskaran, distributed the materials and necessary tools for the fabrication For this session seven teams were made among the participants, 4 – 6 members each, according the students' choice. And each team were assigned with a table to work on their craft as well. The session started with the hand calculation of different design parameters required for the fabrication of the aircraft. As per the instruction provided by Mr. Prakash and Mr. Basakaran, students have completed the required calculation/ estimation, of the parameters such as the wing loading, airfoil selection, dimensions of the wing, fuselage and tail section of the aircraft. After the required estimation of the different design parameters the students started fabrication of the aircraft. They have started off with making the wing. First they have made a template of the airfoil of choice in a paper and attached it on either side of the high density foam piece provided. Using the hot wire cuter, stationed at one side of the venue, each team started cutting out their wing section using the tool. Later they made the fuselage section using the chloroplast, corrugated plastic sheets, provided to them, in the estimated dimensions. The session 2 got extended till 4:45 PM

Finally on day three after understanding the basics of flight, learning about the aircraft cg and its calculations, a aircraft model was built. Once the fabrication was done, the students flew their respective models with help of the instructors. With this the students understood the design, fabrication and flight of an aircraft.

After the successful flight, a brief vote of thanks was given by the event coordinators and thus the program culminated successfully

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