

Event Report

Hands-on Workshop on RC Plane Design

25-27 March, 2016

Location: MA102
Aeromodelling Club
Department of Electronics and
Communication
Marwadi Education Foundation
Rajkot-360003

Jointly organized with IEEE Gujarat Section,
SSCS/EDS Joint chapter and AECM



Faculty Coordinators

Prof. Mehul Kantaria

Prof. Ravi Butani

Resource Persons:

Mr. Virendrasinh Vaghela

Mr. Bhavik Bhansali

Mr. Uttam Andipara

Objective

The Radio Controlled (RC) Aeroplane is becoming an integral part of various defense and commercial applications. Applications of RC plane (Drone) cover surveillance, aerial photography, traffic monitoring, surveying and much more. The objective of the workshop is to share expertise of designing and assembling RC plane with student fraternity at large.

Workshop Course Contents

1. Basics of aerodynamics
2. Different types of wing designs and working
3. Electronics and electrical parts required in RC plane
4. Design specifications of RC plane
5. Techniques to improve design of RC plane
6. Stability concepts of RC plane
7. Testing of RC planes
8. Importance of control in RC plane
9. Autopilot system
10. Government restrictions on wireless transmission
11. Hands on-RC plane design (Scratch building)

Contributors

Mentors

- Dr. Rajendrasinh Jadeja
- Dr. Rajendrakumar Patel

Faculty Coordinators

- Prof. Mehul Kantaria
- Prof. Ravi Butani

Resource persons

- Mr. Virendrasinh Vaghela
- Mr. Bhavik Bhansali
- Mr. Uttam Andipara

Student coordinators

- Mr. Imtiyaz Ansari
- Mr. Ravi Maraviya

Participants

Total 8 teams have participated in the workshop. The details of the participants are as mentioned below.

Sr. No.	Team	Name	Institute
1	1	Vishal Maraviya	Darshan Institute of Engineering & Technology, Rajkot
2		Viroja Ajay	Darshan Institute of Engineering & Technology, Rajkot
3		Desai Chirag	Darshan Institute of Engineering & Technology, Rajkot
4		Dharmesh Dholariya	Darshan Institute of Engineering & Technology, Rajkot
5		Jay Buddhabhatti	Darshan Institute of Engineering & Technology, Rajkot
6	2	Abhijit Nathwani	Marwadi Education Foundation, Rajkot
7		Jaydev Dave	Marwadi Education Foundation, Rajkot
8		Meera Dalsania	Marwadi Education Foundation, Rajkot
9		Pooja Vekariya	Marwadi Education Foundation, Rajkot
10		Richa Agicha	Marwadi Education Foundation, Rajkot
11	3	Dhameliya Rohan A.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
12		Sorathiya Akshay N.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
13		Pansuriya Chirag A.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
14		Devani Parth M.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
15		Patel Milan Y.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
16	4	Mikesh Champaneri P.	Chhotubhai Gopalbhai Patel Institute of Technology, Bardoli
17		Divyeh Makwana	RK University, Rajkot
18		Ankit Hirani	RK University, Rajkot
19		Jenish Jogiya	RK University, Rajkot
20	5	Taher Dhankot	RK University, Rajkot
21		Vibhuti Kholiya	RK University, Rajkot
22		Krishna Chavda	RK University, Rajkot
23		MohammadYusuf Malida	RK University, Rajkot
24		Alvish Raiyani	RK University, Rajkot
25	6	Meghana Sinha	Marwadi Education Foundation, Rajkot
26		Meet Savaliya	Marwadi Education Foundation, Rajkot
27		Paras Tilala	Marwadi Education Foundation, Rajkot

28		Raj Sabhaya	Marwadi Education Foundation, Rajkot
29		Jay Dudani	Marwadi Education Foundation, Rajkot
30	7	Sudhir Rupapara	B. H. Gardi College of Engineering & Technology, Rajkot
31		Meghana Changrani	B. H. Gardi College of Engineering & Technology, Rajkot
32		Priyal Mehta	B. H. Gardi College of Engineering & Technology, Rajkot
33		Nikunj Pandya	B. H. Gardi College of Engineering & Technology, Rajkot
34		Akshay Akbari	B. H. Gardi College of Engineering & Technology, Rajkot
35	8	Mahrshi Jani	Marwadi Education Foundation, Rajkot
36		Priyanka Mudaliyar	Marwadi Education Foundation, Rajkot
37		Kalpesh Parmar	Marwadi Education Foundation, Rajkot
38		Rutvi Vora	Marwadi Education Foundation, Rajkot
39		Sanket Jajani	Marwadi Education Foundation, Rajkot

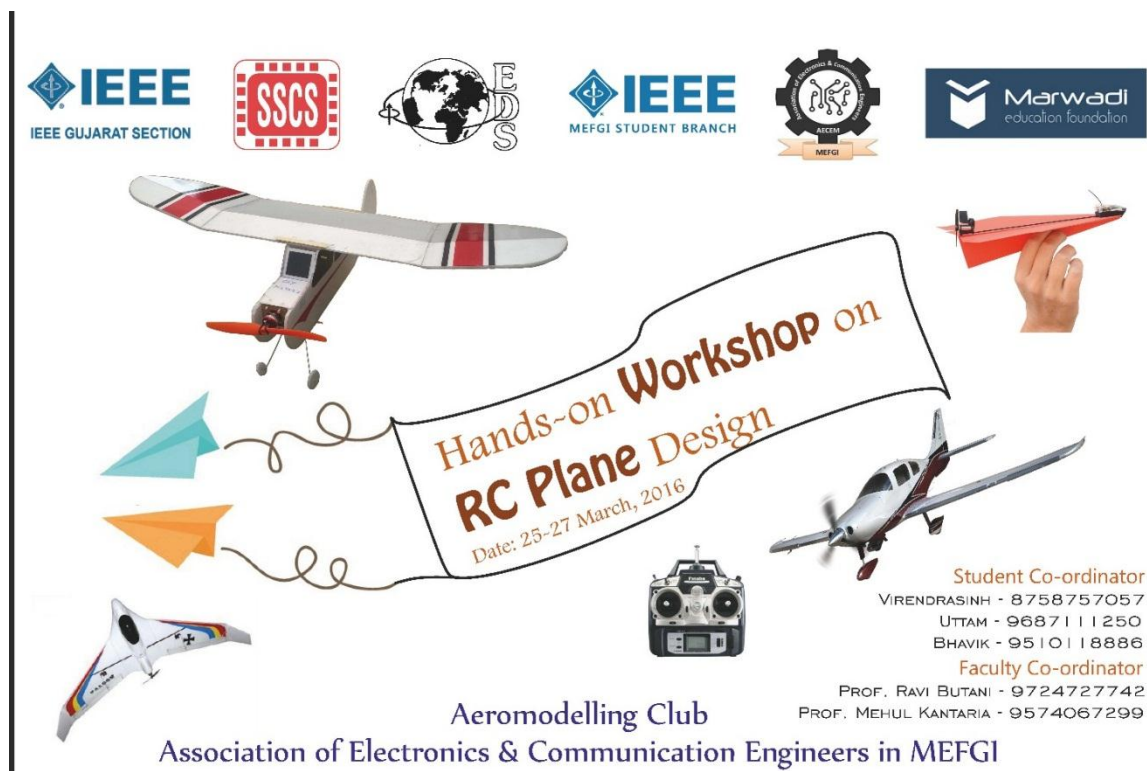
Glimpse of an event:

Image-1 Event Poster



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Eligibility
Open for all who have knowledge of basic principles of physics.

Registration Fee

- INR. 5500 per team (if at least 1 IEEE member in a team)
- INR. 6500 per team (for others)

Registration Process
Registration fees can to be paid in the form of online/offline transaction to the below mention account.

Account No: 3103 2011 0000 316
Account Name: MEFGI – Faculty of Engineering
Bank Name: Bank of India
Branch: PANCHNATH BRANCH, RAJKOT- 360005
IFSC code: BKID0003103

Registration is open for only 10 teams on first come first serve basis. Registration fees includes RC-Plane kit and free accommodation for outstation participants on prior request and availability.

Workshop Kit Includes

• Servo Motor	• Push Rods
• BLDC	• Glue Gun
• ESC	• Cutter
• Control Horn	• Learning Documents
• Linkage	• Depron
• Stopper	



Hands-on Workshop on RC Plane Design
25-27 March, 2016
Venue: MEFGI, RAJKOT

Organized by
Aeromodelling Club,
Department of Electronics and Communication Engineering,
Marwadi Education Foundation





Image-2 Flyer-Side 1

Marwadi Education Foundation	
<p>About Aeromodelling Club</p> <p>It was established by department of Electronics and Communication Engineering in 2012. since its inception the aim of the club is to inculcate the interest in electronics by unveiling the concepts of designing the aeromodels and controlling them by means of wireless remote. This unique club facilitates the students to learn the technology behind designing of RC planes including Multi Rotors.</p> <p>The student members of the club have represented MEFGI in Aeromodelling competitions held at IIT Madras, IIT Kharagpur, IIT Guwahati and IIT Roorkee. The team had secured 1st rank at IIT Guwahati and 4th rank at IIT Roorkee and also secured best design award in AVIAN held at UVPCE, Mahesana, Gujarat.</p>	<p>Faculty Coordinators:</p> <ul style="list-style-type: none"> • Mehul Kantaria, Dept. of ECE • Ravi Butani, Dept. of ECE <p>Resource Persons:</p> <ul style="list-style-type: none"> • Mr. Virendrasinh Vaghela • Mr. Bhavik Bhansali • Mr. Uttam Andipara <p>Contact us:</p> <p>Prof. Mehul Kantaria: 09574067299</p> <p>Email Id: aecem@marwadieducation.edu.in</p>
<p>Registration Form</p> <p>Hands-on Workshop on RC Plane Design</p> <p>Name : _____</p> <p>IEEE membership number (if applicable): _____</p> <p>Institute: _____</p> <p>Email ID: _____</p> <p>Contact No: _____</p> <p>Accommodation Required: Yes / No</p> <p>Date: ____/____/____</p> <p>Signature: _____</p> <p>Name of other team members</p> <p>1: _____</p> <p>2: _____</p> <p>3: _____</p> <p>4: _____</p>	

Image-3 Flyer-Side 2



Image-4 Inaugural- Prayer



Image-5 Inaugural Function-1



Image-6 Inaugural Function-2



Image-7 Participants

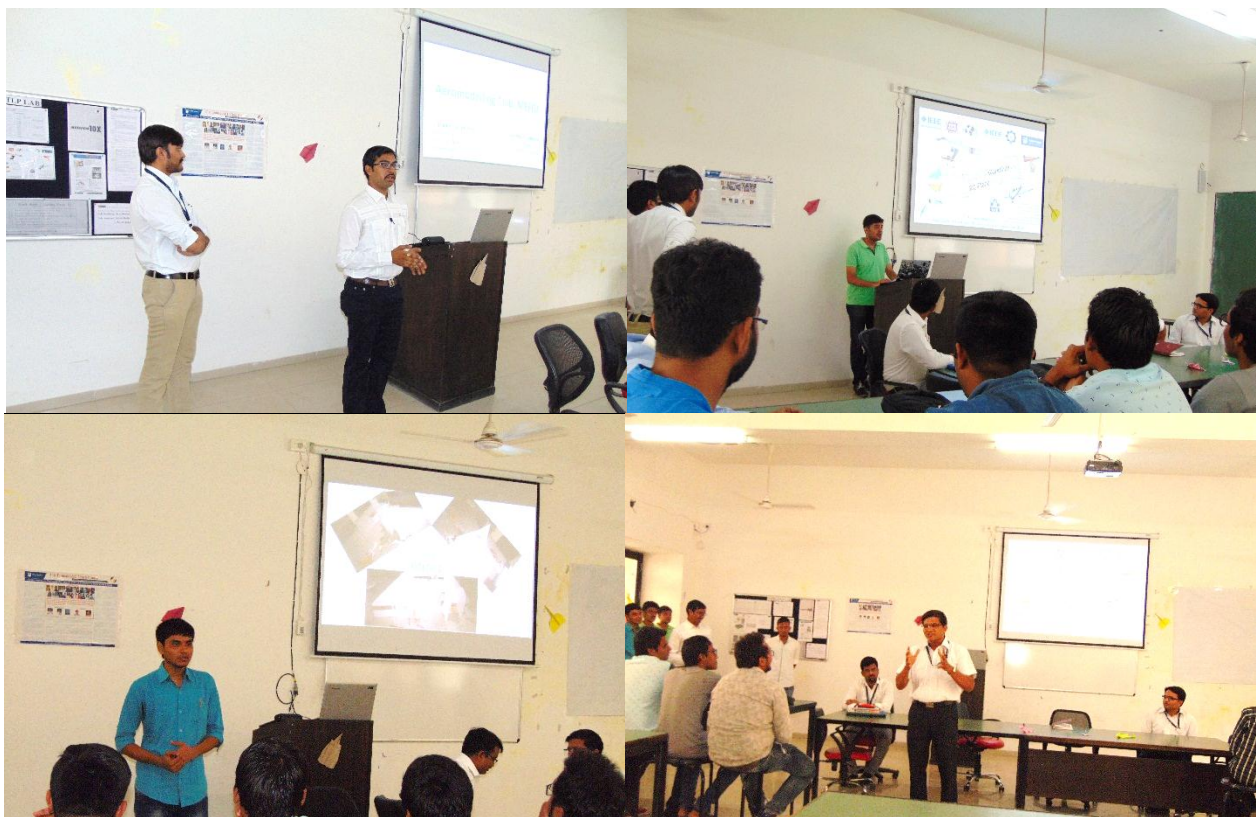


Image-8 Introduction of Aeromodelling



Image-9 Different types of wing designs and working

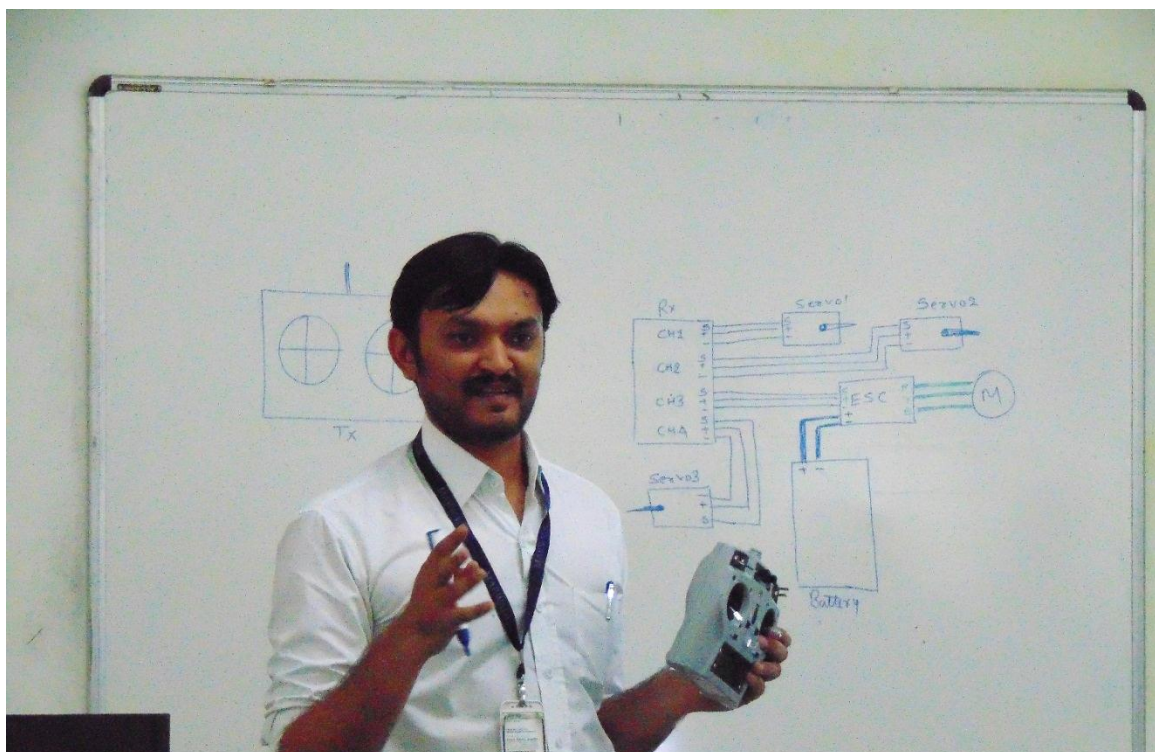


Image-10 Electronics and electrical parts required in RC plane



Image-11 Design specifications of RC plane



Image-12 Autopilot system



Image-13 Hands on-RC plane design (Scratch building)



Image-14 Group Photo



Image-15 Group Photo



Image-16 RC planes designed by participants