

HOVERCRAFT WORKSHOP

INTRODUCTION:

The Hovercraft workshop trains students to design, fabricate and test run their own mini radio-controlled hovercrafts and make them practically understand the aerodynamics, electronics and instrumentation principles involved in hovercraft design. Get into the world of most advanced future machines in the automobile sector which can easily move on land and water.

COURSE CONTENT:

Session 1

Theoretical Session:

1. Lecture on scientific concepts behind Hovercraft
2. Understanding the Physics behind functioning of a Hovercraft
3. Structure and parts of a Hovercraft
4. Introduction to Remote Controlled Hovercraft
5. Electronics used in the design of RC Hovercraft

Session 2

Design and Brainstorming session:

1. Understanding Design algorithm of hovercrafts
2. Calculation and Hovercraft design evaluation
3. brainstorming for Innovative RC Hovercraft idea
4. Analysis and implementation of creative hovercraft ideas

Session 3

Practical fabrication session:

Fabrication of Hovercraft

Installation of electronic hovercraft component's.

Practical Implementation of innovative ideas.

Efficiency escalation of Hovercraft

Analysis of the hovercraft

Session 4

Test run:

- Hovercraft test run
- handling techniques for hovercraft
- Explanation of Error in Design
- Design modification concepts
- Best Design Selection

Hovercraft Workshop Material:

- Battery
- Electronic Speed Controller
- Servo Motor (3 Pieces)
- Motor
- Propeller
- Working Tools
- Corrugated Air frame
- Landing Gear
- Wheels and Accessories
- Wing Holder
- Control Rod
- Clevises
- Control Horns

BENEFITS:

- Hands on Sessions by experts.
- Each Participant will Certificate of participation.
- Interactive sessions.
- Doubt Clearing Session for all the students at the end of the Workshop.

Hovercraft workshop Outcomes :

- Explore the principles behind hovercraft design and science of air-cushion vehicle, ACV with aeromodelling and automobile nuances.
- Introduction to Design Algorithm of a hovercraft based upon aeromodelling and vehicle dynamics Concepts.
- Fabricate your own Hovercraft and also get guided to implement your own innovative hovercraft design concepts.

- Learn about different hovering techniques of hovercrafts by test running your hovercrafts in land and water and enhance your aeromodelling and automobile skills.

VENUE : College of Engineering, Pune

WORKSHOP FEES : ₹ 1100 /- per participant

DATE : 16th and 17th September 2017