SCHOLASTIC ACHIEVEMENTS AND AWARDS

- **Pursuing a Minor in Computer Sciences and Engineering**
- **Awarded Institute Technical Special Mention** for the year 2014-2015
- **Branch changed** from Aerospace Engineering **into Mechanical Engineering (Specialization in CADA)**- was one of the **66 students in the entire batch of 880 students** who got an opportunity to change their branch
- **All India Rank 1296** at Joint Entrance Exam (JEE) Advanced 2013, conducted by Indian Institute of Technology, among 1.5 lakh candidates who were shortlisted from a total of over 13 lakh candidates
- **Awarded KYPY Fellowship Award 2012 after securing All India Rank of 981**, KVPY is an initiative taken up by government to promote research talent in India
- Awarded Scholarship for Higher Education under INSPIRE for being in the **top 1%** of the school board at high school

TECHNICAL PROJECTS

- **AUVSI foundations and US office of Naval Research**

International RoboSub Competition, San Diego, California

Lead, Mechanical Subdivision **Present**

Designed and developed a state-of-the-art unmanned **Autonomous Underwater Vehicle (AUV)** with a total budget of **7 million INR** that localizes itself and performs realistic mission based on feedback from visual, inertial, acoustic and depth sensors using thrusters/propellers and pneumatic actuators

Guide: Prof. Hemendra Arya and Prof. L.Vachhani www.auv-iitb.org

Chief Mechanical Engineer **(AUG'14-MAY'15)**

- Designed and Fabricated **Pressurized Waterproof hulls** providing an enclosure to all water sensitive sensors and electronic boards of the vehicle
- Developed **Underwater switches** having a **simple yet, robust Pull-Push trigger action**
- Developed **custom underwater connectors**; (reduced cost **95%** compared to commercial connector)
- **Semi-finalist** among 44 international teams

Fabrication Engineer **(AUG'13-JULY'14)**

- Fabricated Frame, Pressurized enclosures and the actuator systems for the vehicle such as droppers, grippers, shooter for pneumatically actuated torpedoes

- **Institute Technical Summer Project-Bluetooth Controlled Hexapod** **(SUMMERS-2014)**
  - We designed a six-legged bot which was controlled by an application via Bluetooth

- **Robotic catapult:** **(Sept '13)**
  - Successfully completed a motor operated vehicle capable of **shooting Table Tennis balls** into target bins of different sizes and heights located at different distances

PUBLICATIONS AND PRESENTATIONS

- Co-authored team journal paper titled "**Research & Development of an Autonomous Underwater Vehicle, Matsya 3.0**" for the International **Robosub Competition 2014**
- Author of the poster titled **"Design And Development of Pressurized Enclosures of an Underwater Vehicle**" for the Undergraduate Exposition Presentation at the 2015 **ASME International Mechanical Engineering Congress & Exposition Montreal**, Canada

INTERNSHIPS

- **Embryyo Technology** **(SUMMERS-2015)**
  - Designed a system capable of showing the weight and volume variation of an **infant** along the body length
  - Used **3D scanner technology**-having two rotational degrees of freedom- to get a 3D scan of the infant, and took feedback from load cells mounted on the system to calculate the weight
  - Successfully completed a **CAD model** and built a working **prototype** for the same.

POSITION OF RESPONSIBILITY

- **Part of the 22 membered DAMP team for the year 2015-16**, as a part of which we implement important academic and student related policies throughout the year **(March'15-Present)**
- **Technical mentor in events like ITSP,XLR8,RC Plane** and other technical competitions organized by STAB, technical body of IIT Bombay (**2014)**
- **Co-ordinator** at Media and Marketing, **Mood Indigo'2014,** Asia's largest students' cultural festival **(Feb'14-Dec'14)**

SOFTWARE AND SKILLS

- Software: Solidworks, Ansys, Matlab, AutoCAD (2D)
- Programming languages: C++, Prolog, Java
- Mechanical: Lathe, Shaper, Welding, CNC Milling, Laser Cutting, Router Cutting

EXTRA-CURRICULAR ACTIVITIES

- **Represented the Hostel in Sport GCs** for events like **Shotput and Javelin**.
- Completed the **Institute Biathlon –** 7 Km of cycling & 7 Km of running
- Successfully wrote a program in C++ which could keep log of all vehicles entering/exiting the Institute
- Successfully made a RC Plane
- Made a replica game of the quiz show "KBC" on Java-Blue J, which could be played by any user on similar lines

COURSES UNDERTAKEN

- Heat transfer, Microprocessor And Automation Control, Solid Mechanics, Fluid Mechanics, Thermodynamics, Manufacturing Process, Rapid Product Development, Design for Manufacturing
- Data Structures, Design and Analysis of Algorithms, Digital Systems, Electric and Electronic Circuits
- Linear Algebra, Differential Equations, Numerical Analysis, Data Analysis and Interpretation