Ankita Deshmukh   09D17013
Energy Systems Engineering   UG Third Year(Dual Degree)
Indian Institute of Technology, Bombay   Female
Specialization: Energy Systems Engineering   DOB: 4th Oct 1991

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	8.97
Intermediate/+2	Maharashtra State Board	Shivaji Science College, Nagpur	2009	92.67
Matriculation	Maharashtra State Board	Hadas High School, Nagpur	2007	92.76

ACADEMIC ACHIEVEMENTS

- Presently **ranked 3rd** in the Department of Energy Science and Engineering, IIT Bombay.
- Secured an **AP grade** in Economics (HS101) for exceptional performance in the course.   [2009]
- Secured **AIR 3017** in **IIT-JEE, 2009** among approximately 3,85,000 candidates who appeared for the same**.**   [2009]
- Secured **AIR 323** in the final round of the **National Science Olympiad**.   [2008]
- Secured **18th rank in Maharashtra Talent Search Examination**.   [2008]
- Secured **High Distinction** in th**e Australian National Chemistry Quiz.**   [2005]

SUMMER INTERNSHIP

Nuclear Power Corporation of India Limited (NPCIL), Mumbai   [June-July 2011]

Topic: Electro-Hydraulic Control System modeling of a steam-turbine

- Studied the **control algorithms** behind the functioning of EHCS in different modes during different stages of turbine working, and refined the existing model of the same.
- **Decoded flow charts of programs,** which run the programmable logic controller (PLC) governing the actuators, for the power mode, speed mode and pressure maintenance mode.

KEY PROJECTS UNDERTAKEN

Demonstration of electricity from car-exhaust   [Spring 2010]

Guide: Prof. Rangan Banerjee, Energy Systems Engineering, IIT Bombay

- Developed a **working model** to show the generation of **electricity from the waste heat of exhaust gases** from vehicles using **Thermo-Electric Generators (TEGs).**
- Quantified the benefits of installation of such a device in vehicles **to save fuel**.

Personalized electric vehicle   [Ongoing]

Project under Technovation**,** an initiative by students and professors of IIT Bombay

- Working in a team of 5 to design and build a **2-wheel Personalized Electric Vehicle,** on the lines of a **Segway Robot**.
- The vehicle aims at providing safe and **environment-friendly individual transport** inside the campus.

Fingerprint detection code   [Autumn 2009]

Guide: Prof. Deepak Phatak, Computer Science and Engineering, IIT Bombay

- Developed a program using **C++,** to **process fingerprints and their identification.**
- Algorithm included code fragments for Binarization of Images, Image Thinning and Minutiae detection.

Economics of bank services   [Autumn 2009]

Guide: Prof. Haripriya Gundimeda, Humanities and Social sciences, IIT Bombay

- Made a synopsis on Economics of Bank services that included **a study of the oligopolistic nature of banking industry.**
- Network of various banks, their market share and marketing strategies were analyzed.

POSITIONS OF RESPONSIBILITY

Technical activities secretary, Hostel 10, IIT Bombay [2010-2011]

- Led the hostel to successful participation in various inter-hostel technical and robotics events in the institute.
- Organized various Robotics Intras, Design Challenges and Technical quizzes in the Hostel.

Organizing team, Techfest 2010 and 2011 (Techfest is IIT Bombay's Annual Technical Festival, Asia's largest)

- Coordinator, Competitions Department, Techfest 2011: Organized and Coordinated an **International level Robotics competition called "Mars Manoeuvre".**
- Organizer, Competitions Department, Techfest 2010: Worked as an organizer for a **National level Basic Robotics competition called "Crossover**", which saw participation from over 15 states in India.

AWARDS AND ACCOLADES

- Awarded **Institute Technical Activities Special Mention** as recognition for excellence in technical activities. [2010]
- Awarded **Hostel Technical Color Award** for dedicatedly representing hostel in various technical competitions. [2011]
- Awarded **Technical Activities Special Mention, Hostel,** for exceptional skills in Technical Activities. [2010]

TECHNICAL ACHIEVEMENTS

Participated in the following **Technical events**:

- **Design Challenge:** Proposed an efficient **Transport system for institute** considering all necessities and restrictions for an Inter Hostel Competition. (Secured **1st place**). [2011]
- **FRESH-E: Circuit Design Challenge** organized by the Electronics Club, IITB (Secured **3rd place**). [2010]
- **Design Challenge: Mechanism designing competition** organized by Technic Club, IITB (Secured **1st place**). [2010]
- Made an **autonomous grid follower** that was programmed to find and bring a specific block placed on a grid for the **Nexus-Navigate, competition conducted by Techfest 2011, IITB**. [2010]
- **F1 race**: Built a four wheel drive **miniature car for a racing** competition. [2009]
- **Line Follower:** Built a white **line following robot** for an inter hostel competition. [2009]
- **Robowars:** Built a robot with the motive of battle with similar machines for the **Institute GC.** [2010]

Technical Skills :

- Programming languages known: **C++, HTML**.
- Operating systems comfortable with: **Windows, Linux**.
- Microcontrollers used and programmed**: AVR Atmega16**, **Arduino-Duemilanove.**
- Software Packages known: **WinAVR**, **SolidWorks, Matlab, LTSpice, Sequel.**

EXTRACURRICULAR ACTIVITIES

Sports:

- **Played Basketball in the Inter-IIT Sports Camp.** [2009]
- Currently playing **Basketball, Throw ball and Kho-Kho for Hostel 10,** in the Institute General Championship, IIT Bombay.

Cultural:

- **Quizzing:** Participated in '**Cadbury Bournvita Intra School Quiz contest'.** [2003 & 2004]
- Participated in the **Inter-hostel group dance competition in Cultural General Championship** for first year students (Freshizza). [2009]