



Rana Jitenkumar Babubhai
Electrical Engineering
Indian Institute of Technology, Bombay

09007001
UG Third Year (B.Tech.)
Male
DOB: 23/02/1990

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	7.72
Intermediate/+2	GSHSEB	Sett R.J.J Highschool	2008	86.60
Matriculation	GSHSEB	Sir C.J.N.Z. Madressa Highschool	2006	91.57

SCHOLASTIC ACHIEVEMENTS

- Was amongst 0.1% of the students from all over India who appeared for IIT JEE 2009. (**JEE AIR 285**).
- Secured **AIR 406** in AIEEE 2009.
- Secured **6th Rank** in GUJCET 2008 and **1st Rank** in Navsari district.
- Stood **1st** in Navsari district in scholarship exam conducted by Gujarat govt and received scholarship for three years. **[Aug '04]**
- Stood **1st** in Navsari district in **Gujarat Talent Search Exam** conducted by Gujarat govt. **[Feb '04, Feb '05]**

PROJECTS UNDERTAKEN

Wireless Transfer of Sensor Data **[Aug '11-ongoing]**

Guide: Prof. S N Merchant

Currently involved in transfer of sensory data regarding pollutants and sending the data to the base station as well as selected devices via Bluetooth communication.

Filter Design on FPGA Boards **[Jul '11-ongoing]**

Guide: Prof. Sachin B. Patkar

Currently working on verilog to create some filters and test it on FPGA boards.

Rapid Roll Game **[Mar-Apr '11]**

Guide: Prof Sachin B. Patkar and Udayan Ganguly

Designed Rapid Roll game as a part of Digital Lab project. Built sequential logic circuit for the same and also made verilog code and simulated it. The hardware was realized without using any microcontrollers, using basic ICs like muxes, demuxes, shift registers and logic gates.

Bot Follower **[May-Jun '10]**

Group Summer Project under Electronics Club IIT Bombay

Built a robot which autonomously follows another robot based on image processing. Developed a code in C/C++ to take video inputs from an overhead camera; process it using **Open CV** and **Blobslib** and give appropriate directions to the follower bot.

Mini UID Project (Unique Identification) **[Oct-Nov '09]**

Guide: Prof. Deepak B. Phatak

Did a project under the Computer Programming and Utilization course. I was part of the **Duplication Detection Team**, developed algorithm to detect duplication of the print.

Operational Amplifier Design **[Apr '11]**

Guide: Prof. Anil K.G.

Designed an **Operational Amplifier** as a part of my lab task with the given specifications.

Water Level Detector **[Jan '11]**

Guide: Prof. Anil K. G.

Designed a water level detector using IR sensors in which an array of photo diode and LED was employed. No. of LEDs glowing indicates the level of water.

Emission Norms for Motor vehicles **[Nov '10]**

Guide: Prof. Ganesh Anuradda

Prepared a report on Bharat Stage I and Stage II Emission norms. Studied the driving cycles of motor vehicles under these norms. Analysed the upcoming norms for emission control and improved efficiency.

Analysis of Mobile Market in India

[Nov '10]

Guide: Prof. Haripriya Gundimeda

Made a report on mobile market in India and analyzed the past and present trends of the market structure, the current players, market shares, market size and its growth.

KEY COURSES UNDERTAKEN

Department courses:

Digital Systems
Analog Circuits
Signals and Systems
Electrical Machines and Power Electronics
Communication Systems*
Microprocessors*
Probability and Random Processes*
Electromagnetic Waves*
Power System**
Control System**
Digital Signal Processing**
Digital Communication**

Non Department courses:

Computer Programming and Utilization
Calculus
Differential Equations I
Differential Equation II
Complex Analysis
Economics
Psychology*
Data Interpretation and Analysis

**indicates courses to be completed by November 2011, **indicates courses to be completed by April 2012*

COMPUTER SKILLS

Software Languages: C, C++, HTML, Verilog (HDL), JAVA

Software Packages: Matlab, Scilab, Eagle, ngSpice, LT Spice Open CV, Mathematica, MS Office

Operating Systems: Windows, Linux

Microcontrollers: Atmel AVR

POSITIONS OF RESPONSIBILITY

- **Class Representative**, Electrical Engineering Department, IIT Bombay. [Jul'09-ongoing]
- **Organizer and Coordinator**, Professional Nights Department, Mood Indigo 2009 and 2010 respectively. [Dec '09, Dec '10]

EXTRA CURRICULAR

- Secured 4th position in **Best Reader Competition** conducted by Sayaji Vaibhav Library in Navsari district. [Sep '05]
- Had demonstrated the model of **Anti Collision Device** which is currently implemented in Konkan Railway. [Sep '06]
- Was amongst **10 finalists** in singing competition for 1st year students in fresizza held by cultural administration IITBOMBAY. [Aug '09]
- Had chosen Vocal as my NSO subject in which I got to learn Indian classical music for one year. [Jul '09-Apr '10]
- **Runner up** in the **General Quiz** conducted by **TISCO (TATA Steel)** at Navsari. [Oct '05]
- Participated in district level **Science Fair 2003 and 2007** held in Navsari district.
- Has been learning **Indian Percussion Instrument (TABALA)** for last two years here at campus. [Mar '10-ongoing]
- Participated in a competition called **Crossover** in Techfest, IIT Bombay. [Jan '11]
- Participated in a F1 car race competition in which I made a robot controlled wirelessly by a remote at IIT Bombay. [Sep '09]

