



Soma Sekhar Apparao
Electrical Engineering
Indian Institute of Technology, Bombay
Specialization: None

100070017
UG Third Year (B.Tech.)
Male
DOB: 22-04-1993

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2013	8.80
Intermediate/+2	BHPV Senior Secondary School	BHPV Senior Secondary School	2010	88.30
Matriculation	Siva Sivani Public School	Siva Sivani Public School	2008	92.40

Academic Achievements

- Secured **All India Rank 96** in **IIT JEE** 2010 among 4.7 lakh candidates
- Secured **All India Rank 6** in **ISAT** 2010 among 4 lakh students
- Secured **All India Rank 26** and **AIEEE** among 12 lakh students
- Secured **All India Rank 30** in **NSO(National Science Olympiad)** conducted by **SOF** in 2010
- Secured **National level rank 11** in **National Level Science Talent Search Examination** in 2009.
- Awarded the prestigious **KVPY(Kishore Vaignanik Protsahan Yojana)** scholarship in the year 2010
- Was among the **top one percent** of students in the **Second Level of INPhO(Indian National Physics Olympiad)**
- Received high distinction in Science in **IAIS** conducted by University of South Wales

Projects Undertaken

- **3G Signal Enhancer with Automatic Gain Control**
Guide : Professor Girish Kumar *Summer,2012*
 - Understood the functioning of an **Automatic Gain Control IC**,designed and tested a board thereafter
 - Designed a 3G signal enhancer without any AGC
 - Presently working on integrating both of them to enable Automatic Gain Control operation in the 3G signal enhancer designed
- **Course Projects Machine Learning & Image Processing**
Guides : Prof.Ganesh Ramamkrishnan & Prof.Arjun Arunachalam *Autumn,2012*
 - Coded greedy algorithm in matlab and built a decision tree using part of a given set of data and tested in on the remaining data.
 - Implemented and observed various stopping criterion on the same.
 - Implemented image processing algorithms in matlab to restore a corrupted brain image.
- **Self Learning Robotic Leg**
Electronics Club Summer Project *Summer,2011*
 - Built a robot with two degrees of freedom which generates by trial and error a database of all stable positions
 - It then applies this database to reach a position once given a goal.
- **Other Projects**
 - Have worked in **Formula Student** team,IIT Bombay. Solely responsible for the charger section(building simple circuits for charger control) and other minor works

- Worked at **SHArP Edge learning**. Prepared interactive learning presentations for matriculation students
- Worked in a team to build a **2 D graph plotter** using C++ and EZ Windows. Personally handled the section of decoding the input
- Conceptualised and Designed a **Line Follower robot**
- Understood the functioning of a mouse and its parts and submitted a detailed report about the same

Positions of Responsibility

Department Joint Secretary

- Coordinated in planning and organising department level events such as ‘Summer Project Allocation Scheme’, ‘Trek’, ‘Picnic’, ‘Freshmen Welcome’, ‘Traditional Day’ and ‘Department Sports Weekend’
- Involved in crowd management and logistics supply.
- Assisting a team of 12 members to successfully organize Department Fest, ‘Aagomani’

Coordinator

- Worked in **Web and Infrastructure Departments** in Entrepreneurship Cell and Techfest respectively
- Helped in managing some websites and organizing some important events like peb-bou(bubble) show

Mentor

- Guided a team of 3 in ITSP(Institute Technical Summer Project) and saw to its completion.

Skills

Minor: Currently pursuing a minor in Computer Science Engineering.

Languages: C/C++,Java,Assembly language programming

Applications: MatLab, L^AT_EX, Eagle,Eclipse,OrCAD schematic capture, Altera Quartus

Web tools : PHP,SQL,HTML,Javascript

Sports: Part of Volleyball team,NSO. Participated in hostel athletic and volleyball events.

Music and Dance : Actively participated in institute dance competitions like Gyration.

Courses Undertaken

Core and Breadth Courses	
EM Waves	Image Processing
Digital Systems and lab	Analog Circuits and lab
Communication Systems	Introduction to Electronics
Probability and Random Theory	Introduction to Electric Systems
Microprocessors,Network Theory	Electrical Machines and Power electronics
Electronic Devices and Circuits and laboratory	Solar Photovoltaics Fundamental Applications
Discrete Structures	Differential Equations
Introduction to Machine Learning	Data Analysis and interpretation
Data Structures and algorithms and Calculus	Linear Algebra and Complex Analysis