



Abhinav Kumar Rastogi
Electrical Engineering
Indian Institute of Technology, Bombay

100070024
UG Second Year
Male
DOB: 16-Aug-1992

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	9.85
Intermediate/+2	CBSE	Bal Vidya Niketan, Jehanabad	2010	90.40
Matriculation	CBSE	Sainik School Nalanda	2008	92.60

Academic Achievements

- Currently ranked **1st in my department** and **3rd** out of about 850 students in my batch.
- Scored a **SPI of 10.0** in my 3rd semester.
- Only student to get **AP grade** (awarded for exceptional performance) in the courses **Introduction to Electrical Systems** in the 1st semester and **Complex Analysis** in 3rd semester. Also got AP grades in **Network Theory** and **Differential Equations II** in my 3rd semester.
- Selected under the **National Initiative for Undergraduate Sciences (NIUS)** scheme for an enrichment camp in Physics in 2011.
- Awarded **Certificate of Merit** and **Gold Medal** in **Indian National Physics Olympiad (INPhO) 2010** for being among the top 35 candidates out of 35,670 candidates.
- Secured **All India Rank 84** in **IIT Joint Entrance Exam 2010** out of about 455,000 applicants.
- Secured **All India Rank 265, State Rank 2** in **AIEEE 2010** out of about 1,100,000 applicants.
- Secured **All India Rank 5** in **National Science Olympiad 2009** conducted by Science Olympiad Foundation (SOF), New Delhi.
- Secured **All India Rank 75** in **International Mathematics Olympiad 2009** conducted by SOF, New Delhi
- Secured **All India Rank 83** in **National Cyber Olympiad 2007** conducted by SOF, New Delhi.
- Cleared First round of **National Talent Search Examination (NTSE)** in 2008.

Projects

- **Self Correcting Quantum Network** (Currently Ongoing)

Developing a procedure to automatically correct the bit flip and arbitrary phase change errors in Generalized Bell States and then design an error correcting circuit. The project is mentored by Prof. Prasanta Panigrahi (IISER Kolkata) and Co-mentored by Prof. Vijay A. Singh (HBCSE, TIFR) and is under the NIUS scheme.
- **Graph Plotter** (Autumn 2010)

Computer Programming and Utilization course project under Prof. D.B. Phatak. Implemented a 2D graph plotting algorithm using C++ as a part of 13-membered team and developed a GUI for it using EzWindows API for C++.

- **Device Opening** *(Spring 2011)*
Introduction to Electronics course project under Prof. J. M. Vasi. Studied the interiors of a Stereo Cassette Player and wrote a term paper on it in a team of 3.
- **F1 Car** *(Autumn 2010)*
Made a remote controlled car using RF circuits in a team of 4.

Courses Undertaken (By April 2012)

- **Departmental-** Introduction to Electrical Systems, Introduction to Electronics, Network Theory, Electronic Devices and Circuits, Signals and Systems, Analog Circuits, Digital Systems, Electrical Machines and Power Electronics.
- **Maths-** Calculus, Linear Algebra, Ordinary and Partial Differential Equations, Complex Analysis, Multivariable Calculus.
- **Other Courses-** Computer Programming and Utilization, Data Analysis and Interpretation, Electricity and Magnetism, Chemistry, Economics, Classical Mechanics (Physics Minor), Introduction to Quantum Mechanics (Physics Minor).
- **Lab Courses-** Electronic Devices Lab, Analog Circuits Lab, Digital Circuits Lab, Machines Lab, Measurements Lab, Physics Lab, Chemistry Lab, Engineering Graphics and Drawing, Workshop Practice.

Work Experience

- **Teaching Assistant** at **IIT Bombay** for the courses Linear Algebra and Differential equations in Spring 2012. Teaching a class of about 50 students in both the courses. Was also a Teaching Assistant for Calculus and Electricity and Magnetism in Autumn 2011.
- **Coordinator** for Lecture Series department, **TechFest '12**, Annual Technical Festival of IITB.

Computer Skills

- Packages- MATHEMATICA, SCILAB, LABVIEW, Spice.
- Basic Object Oriented Programming in C++.
- HTML, LaTeX.

Extra Curricular

- Climbed Sandakphu (11,929 ft.), the Highest Peak in West Bengal in 2006 in a camp organized by Himalayan Mountaineering Institute, Darjeeling.
- Was part of my school football team and won Central Zone Inter Sainik Schools Junior Football Championship in 2007.