



Aditya Vikram Singh Bhadoria
Electrical Engineering
Indian Institute of Technology, Bombay
Specialization: Communication & Signal Processing

08D07019
UG Third Year(Dual Degree)
Male
DOB: 22/09/1990

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	7.52 (on scale of 10)
Intermediate/+2	MPBSE	Gwalior Public School	2007	87.88
Matriculation	MPBSE	Gwalior Public School	2005	79.80

Academic Qualifications

- Secured **All India Rank** among Top 300 out of 400000 students appeared in **IIT-JEE** 2008 i.e among top 0.1 % students across the country.
- Was among Top 1500 out of 900000 students appeared in **AIEEE**(All India Engineering Entrance Examination)2008 organised by CBSE.
- Awarded the Top Most Category in school Eight times and got Special mention in **Mathematics** in High school.

Internships and Projects Done:

- Indian Institute of Management, Ahmedabad – winter Internship** [Dec'10-Jan'11]
Topic- Analysis of Sojourn Time Distribution among Priority Queues in different Networks.
-Analyzed the waiting time Distribution, their Laplace transforms and moments for low & high priority class in a priority queue.
-Examined the different inter-arrival time distribution & service time distributions along with different scheduling Policies in the Queueing systems of the form G/G/s/K.
-Surveyed the queue behavior according to different service disciplines in a FIFO queue & Processor sharing queue and both with Preemptive Resume, Non-Preemptive resume.
- Circuitsutra Technologies Pvt Ltd-Summer Internship** [May'10-Jun'10]
-Analyzed the System level modelling & functional Verification using a Hardware Description language known as **SystemC** which is based on the **Object oriented programming** feature of C++.
-Worked on the Concept of simulation of concurrent processes in real time environment on integrated circuits based on System on Chip (**SoC**) designing.
-Familiarized with the concepts of System level design using Transaction level modelling (**TLM**).
- Oscillator Design for RF Circuit** **Guide:**Prof. S.N Merchant , EE, IIT Bombay [Sep'10-Oct'10]
-Designed a single-transistor implementation of a high frequency sinusoidal oscillator known as **Colpitts oscillator**.
-Developed on the concept of amplifiers with positive feedback satisfying the well known **Barkhausen Criteria**.
-Illustrated the use of **Radio frequency choke** on the Printed Circuit Board(PCB) layout of the Oscillator for reducing radio frequency interference in switching circuits.
- Image Processing Project** **Guide:**Prof. Subhasis chaudhari,EE,IIT Bombay, [Aug'10-Sep'10]
-Created Noise removing **Mean & Median** filters with the help of **2-D convolution** of Matrices.
-Designed Edge detection algorithms based on **Gradient & Laplacian** method with the help of convolution of matrices.
-Developed whole project on **C++ language** & its associated libraries.
- EEG & MEG signal analysis** **Guide:** Prof. V.M Gadre, EE, IIT Bombay [Jan'10-Mar'10]

- Analyzed the weak Electrical & Magnetic signals generated in brain with the help of signal transformation in Matlab.
- Interpreted the **Fourier transforms** of these signals & **Topographic maps** to determine the difference between the current activity of Normal brain and epileptic brain.

- **Computer Science Project** **Guide:** Prof. Abhiram Ranade, CSE, IIT Bombay [Nov 2008]
 - Implemented the **Combinatorial Game Theory** as a recursive algorithm.
 - Designed the program to predict the Strategy & mathematics of two player & single player game.
 - Also developed the Graphics needed for game simulation.

Important Courses Done in Till Now

- **Electrical Engineering:**

Communication Networks	Communication Systems	Network security & Cryptology
Digital Signal Processing	Microprocessors	Control Systems
Power Systems	Introduction to Nanotechnology	Digital Logic & Systems
Network Theory	Signals & systems	Power Electronics
- **Mathematics:**

Integral and Differential calculus,	Linear Algebra,
Differential Equations,	Complex Analysis.
- **Courses done in other Departments:**
 - Computer programming and Utilization
 - Introduction to micro and macro Economics
 - Environmental Engineering
 - Introduction to Renewable Energy Technologies

Software Skills

- Computer Languages : C++, Basic JAVA
- Operating System : Linux, Microsoft Windows
- HDL & Simulation languages : Verilog, SystemC, Matlab, Spice, Scilab, 8085 assembly language
- Designing and Packages : HTML, Adobe photoshop, Visual Basic, MS Office, Mathematica

Positions of Responsibility

- **Maintenance Councillor Hostel 7** [2010-11]
 -Working on the allocation & use of Hostel funds for Maintenance purpose of the Hostel.
 -Proposed Renovation plans for Hostel & get them implemented with proper coordination with the Institute authorities.
- Held the post of '**Maintenance Secretary**' in Hostel & coordinated with the Hostel [2009-10]
 council on various issues regarding maintenance.
- Was a *Co-ordinator* [2009] and *Organiser* [2008] in Marketing department of **MOOD INDIGO** (Asia's largest cultural festival) held at IIT Bombay .
- Assisted as a *Co-ordinator* in **Lecture Series** department of **Techfest** [2010] & also as an *Organiser* in ENDURO(a robotics competition) held during **Techfest**[2009](IIT Bombay's technical festival).

Extra Curricular activities

- Volunteered in 'Phonathon 09' organised by **Student Alumni Relation Cell (SARC)** at IIT Bombay.
- Received **PAF Special Mention** in Performing Arts Festival'10.
- Attended a 8 week long workshop on **Intellectual Property Rights** organized by **Shailesh J. Mehta school of Management, IIT Bombay** covering Patents, Trademarks, Copyrights, Design Rights Searching, Drafting & related procedures.
- Participated in Inter hostel Sports & Cross country Races.