



VIVEK AGRAWAL
Electrical Engineering
Indian Institute of Technology, Bombay
Specialization: Communication & Signal Processing

09D07011
UG Third Year(Dual Degree)
Male
DOB: 02/09/1991

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	8.37
Intermediate/+2	Maharashtra State Board of Secondary & Higher Secondary Education (MSBSHSE)	D.G. Ruparel College	2009	86.33
Matriculation	Indian Certificate of Secondary Examination (ICSE)	Gokuldham High School & Junior College	2007	95.43

INDUSTRIAL TRAINING

- Summer Internship at **National Instruments India R&D**, Bangalore in the **RF Group**.
Mentors: Dharmendra Lingaiah & Vinay Kumar, Senior Staff Engineers at NI India R&D.
 - Implemented a complete **NFC Reader Module** for all the three NFC Technologies (**A, B, F**) according to the existing **ISO 14443** and **ISO 18097 Standard** prescribed by the **NFC Forum**.
 - Implemented the entire **physical layer communication** protocol for both Reader to Tag and Tag to Reader modes on **LabVIEW** as well as on the **FPGA Hardware, IF-RIO 5641R**.
 - The final design was implemented on an **RFSA Device** complete with **burst detection and decoding** algorithms and was also tested with the **DUT, the TI NFC Tag**. [Summer, 2012]

SCHOLASTIC ACHIEVEMENTS

- Secured an All India Rank (AIR) of **372** out of over **3.85 lakh** aspirants in the **IIT JEE**. [2009]
- Secured an AIR of **1367** out of over **10 lakh** aspirants in the **AIEEE**. [2009]
- Secured a **Bronze Medal** at the **International Junior Science Olympiad (3rd IJSO)** held at **Sao Paulo, Brazil**, as part of the six member team **representing India**. [2006-07]
- **School Topper** in **Std. Xth ICSE Board Examination**. [2007]
- Secured **100/100** in **Mathematics** at the **Std. Xth ICSE Board Examination**. [2007]
- Secured **AIR 1** in the **3rd National IIT/PMT Olympiad**, conducted annually by the **EduSys Foundation**. [2007]
- Secured **AIR 199** in the **9th National Science Olympiad**, conducted annually by the **Science Olympiad Foundation (SOF)**. [2007]

POSITIONS OF RESPONSIBILITY

- **Internship Co-ordinator** for the Department of Electrical Engineering (**EE**) and member of the **Practical Training (PT) Cell**, IIT Bombay.
 - **Contacting various companies and universities all over the world** in the field of EE and **convincing them to offer internship opportunities** to 2nd & 3rd year UGs of the Dept. of EE, IIT Bombay, through a centralized process conducted by the PT Cell.
 - As member of the PT Cell, ensuring that the process of recruitment of interns, conducted by the PT Cell, is carried out in the most just, efficient and systematic manner. [2011-12]
- **Co-ordinator** for **Team Informals** at **Mood Indigo**, Asia's largest of its kind and the Annual Cultural Festival of IIT Bombay.
 - Successfully conceptualized, organized and **implemented three complete events viz. the Treasure Hunt, the Photo Scavenger Hunt and the Bollywood Game show** with over **300 participants in each**, with the help of several organizers working as sub-ordinates. [2010-11]
- **Team leader** for the **Summer Project** under the **Electronics Club**, IIT Bombay. [2010]
- **Marshal (Head of the Student Council), Head Boy** and the **Blue House Captain** in School in three successive years. [2006-07, 2005-06, 2004-05]

SKILLS

Softwares	Microsoft Office , Matlab, Scilab, WinAVR, Arduino, LT Spice, Adobe Photoshop , After Effects , Icarus Verilog, AutoDesk 3dsMax , Quartus
Programming Languages	C, C++, Verilog, VHDL
Operating Systems	Windows
Languages	English, Hindi, Marathi
Personal Skills	Public Speaking , Table Tennis , Engineering Drawing , Swimming, Basic Animation

PROJECTS

- **Summer Project** directly under **Prof. V.M. Gadre** and in collaboration with Cdr. Shishir Sahay from the DRDO, on Parameter Estimation of **Chirp Signals**, allotted under the Summer Project Allocation Scheme conducted annually for UGs at the Department of Electrical Engineering, IIT Bombay. **[2011]**
- Designed and successfully implemented a **1-digit Digital Calculator** for the four basic operations using only **non-programmable devices** as part of the Digital Systems Lab Project under **Prof. Udayan Ganguly**, IIT Bombay. **[2011]**
- Designed and constructed a **Glove Controlled Toy Helicopter** using a **microcontroller** along with an **accelerometer**, under the 'Electronics Club Summer Projects' scheme undertaken by the **Electronics Club**, IIT Bombay. **[2010]**
- Constructed an **Infrared Remote Control Switch** with an **on-board power supply** as part of the Electronics Course Project under **Prof. (Mrs.) Shetye, D.G. Ruparel College**. **[2008]**

COURSES UNDERTAKEN

Introduction to Electrical Engineering	C++ Programming	Introduction to Electronics	Network Theory
Digital Signal Processing	Analog Circuits	Signals & Systems	Digital Systems
Computer Aided Geometric Design	Power Electronics	Communication Systems	Logic Design
Probability & Random Processes	Microprocessors	Digital Communications	Power Systems

Ordinary Differential Equations (I & II)	Linear Algebra	Data Analysis & Interpretation	Calculus
Physics (Electricity & Magnetism)	Complex Analysis	Basics of Animation	Economics
Indian Economy	Psychology	Environmental Science & Engineering	Financial Economics

EXTRA-CURRICULAR ACTIVITIES

- Successfully completed a **Finance Boot Camp** organised by the Career Cell, IIT-B and conducted by an alumnus of IIT Bombay, currently working at a reputed Multinational Investment Bank. **[2012]**
- Secured **3rd place** at an event known as '**Crime Scene Investigation**' at Mood Indigo. **[2012]**
- Winner of '**Junkyard Wars**', viz. creating on the spot, a specified structure to hold maximum weight, as part of a five member team, at **Chaos**, the Annual Cultural Festival of **IIM Ahmedabad**. **[2010]**
- Secured **1st place** in the **Treasure Hunt**, as part of a three member team, organised at **Freshiezza**, the annual cultural festival conducted for 1st year UGs at IIT Bombay. **[2009]**
- Adjudged '**Best All-Round Student of the Year**' at school. **[2005-06]**
- Qualified for the **final stage** of the **Frank Anthony Debate** Competition. **[2006]**

SPORTS

- Secured **3rd place** at the Intra Department Table Tennis tournament. **[2013]**
- Won the Intra Hostel Table Tennis Tournament, twice. **[2010, 2012]**
- Certified for successfully completing a **training programme** in **Table Tennis** conducted by the **National Sports Organisation (NSO)**, IIT Bombay. **[2009-10]**
- Part of the 3-member **winning team** at the **District Level Table Tennis Tournament (DSO)**. **[2004]**