



Akshat Kharaya
Electrical Engineering
Indian Institute of Technology, Bombay
Specialization: Microelectronics

09D07005
UG Third Year(Dual Degree)
Male
DOB: 04/11/91

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	7.49
Intermediate/+2	Rajasthan Board	Shiv Jyoti Sr. Sec. School	2009	86.92
Matriculation	Maharashtra Board	Golden Kids English High School	2007	86.15

SCHOLASTIC ACHIEVEMENTS

- Ranked **All India Rank 235** in **IIT-Joint Entrance Exam 2009** with around 400,000 candidates appearing for the exam
- Qualified for **Kishore Vaigyanik Protsahan Yojana (KVPY)** interview conducted by Indian Institute of Science (2007-08)

KEY ACADEMIC PROJECTS

- Resistance RAM Device Characterization** (May-Jul '11)
(Guide: Prof. Udayan Ganguly)
 - Designed experiments for electrical testing of micro-device characteristics like switching voltage, memory window, endurance and retention (**DUT: MIM resistor**)
 - Successfully observed switching in bipolar devices
 - Analyzed the results and developed a hypothesis for conduction mechanisms
- Mini UID using Fingerprint Analysis** (Oct-Nov '09)
(Guide: Prof. D.B.Phatak)
 - Collaborated with other teams in building a **software capable of extracting and storing user fingerprints** in a database and carrying out verification for unique ID application
 - Involved in **writing the code for registration** of a new entry or modify an already existing one
- Unidirectional Communication System** (Mar-Apr '11)
(Guide: Prof. Udayan Ganguly/Prof. Sachin Patkar)
 - Project involves hardware circuit design to transmit analog data in digital format followed by reproduction.
- Successfully completed a project "**Automated Lighting System**" under Electronics Club

RELEVANT COURSES (TILL APR '12)

- Microprocessors
- Foundations of VLSI CAD
- Physics of MOS Transistors
- Analog Circuits
- Electrical Machines and Power Electronics
- Control Systems
- Digital Systems
- Logic Design
- Digital Communication
- Digital Signal Processing
- Communication Systems
- Probability and Random Processes
- Calculus, Linear Algebra, Differential Equations and Complex Analysis
- Data Interpretation and Analysis

SOFTWARE AND TECHNICAL SKILLS

Software	<ul style="list-style-type: none">• MATLAB, iVerilog, LTSpice, WinAVR• Adept in Windows and GNU Linux• <u>Programming skills</u>: C++, Verilog HDL, VHDL
Technical Skills	<ul style="list-style-type: none">• Digital Signal Processing Lab• Control Systems Lab• Communications Lab• Analog Lab• Digital Lab• Machines Lab• Electronic Devices Lab

POSITIONS OF RESPONSIBILITY

- **General Secretary, Electrical Engineering Students Association** *(Mar '11-present)*
 - Heading a council of 7 people working on all departmental Social, Cultural and Technical activities, Alumni Relations and Department Maintenance including department festival
 - Assure smooth functioning of the council and proper management during all events
- **Editorial Board Member, "Background Hum"** *(2010-11)*
 - Collaborated in a group of 5 people to publish a department newsletter
 - Work involved selection and editing of articles, writing, sponsorship, publicity and distribution
- **Coordinator, Mood Indigo '10**
 - Managed foreign judges from Comedy Store, India under the Live Your Passion program; assisted in organization of the event; involved in prize distribution to winners of competitions
- **Coordinator, Techfest '11**
 - Managed the organization of Treasure Hunt (open entry event) in the Ozone department
- **Class Representative** *(Jul '10-present)*
 - Represent 27 students in Dual Degree - Microelectronics specialization in all academic purposes including curriculum improvement meetings with the HoD

HONOURS AND AWARDS

- Stood 3rd in **Licensed to Quill – Creative Writing** competition in Mood Indigo 2010
- **Table Tennis**: District Level Runner-up *(2004-05)*

OTHER INTERESTS

- **Member, National Service Scheme (2009-10)**
 - Did appreciable social work such as collecting clothes from hostels/quarters and sending them for distribution among needy people
 - Observed and studied the life of people living in small villages
- Completed a **YES+** course conducted by the **Art Of Living** group
 - Followed all activities with discipline including Long Kriya, interacted with new people with totally different perspective and tried to focus towards understanding spirituality better
- Creative Writing, Table Tennis, Card games (Poker, Mafia, etc.), Pool