



Nimit Kumar Singh
Electrical Engineering
Indian Institute of Technology Bombay
Specialization: NONE

120070015
UG Second Year
Male
DOB: 15/07/1994

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2014	9.61
Intermediate/+2	CBSE	Kendriya Vidyalaya No. 4, Jaipur	2012	95.60
Matriculation	CBSE	Kendriya Vidyalaya No. 4, Jaipur	2010	9.80

Scholastic Awards and Achievements

- Bagged **Silver Medal** at **44th International Chemistry Olympiad** held at Washington DC in 2012
- Secured **All India Rank 51** (from 479,000 aspirants) in IIT-JEE 2012
- Secured **All India Rank 149** (from 1.3 million aspirants) in All India Engineering Entrance Examination 2012
- Awarded **KVPY** scholarship by Department of Science and Technology, Government of India in 2011
- Selected for Orientation cum Selection camp for **International Astronomy Olympiad 2012 (National top 35)**
- Among **National Top 300** in first round of team selection procedure of **International Mathematics Olympiad 2012**
- Among **top 1%** in state in **National Standard Examination in Physics 2012** conducted by Indian Association of Physics Teachers
- **AP** in two courses: Introduction to Electrodynamics & Engineering Drawing (AP- Highest grade awarded for exceptional performance to maximum 2% students)
- Pursuing **Minors in Mechanical Engineering**.

Projects

- **Parinat**, Technovation IIT Bombay [October 2012 onwards]
 - IIT Bombay's **first Humanoid Robot**
 - Exhibited at Inclusive Innovation Expo, Pune(Dec. 2013), Techfest(Institute Technical Festival) 2013, Techfest 2014, Institute Annual Technical Exhibition 2013 and Poster presented at UG Research Symposium 2013, Pune
 - Paper on "Mechatronic Design, Fabrication and Analysis of a small size Humanoid Robot "Parinat"" accepted at International Conference on Design, Manufacturing and Mechatronics [ICDMM-2014], Pune
 - Currently leading a team of 6 members as head of Electrical subdivision
- **Heart Rate Counter** [Institute Technical Summer Project] [May-June 2013]
 - It included sensing the intensity variations of infrared radiations passing through the fingertip and thereafter displaying the heartbeat rate on a Seven Segment Display. We achieved this, using simple components like IR LED, photodiode, op-amps and a few ICs, without using Micro-controller
- **MOCAP** (Motion Capture) [Institute Technical Summer Project] [May-June 2013]
 - Tracking motion of human hand by putting LEDs on hand and processing the images of hand in real time using laptop camera and micro processor.

Technical Skills

- Computer languages: **C++**, **Java**, **MySQL**, **HTML**
- Software Packages: **MATLAB**, **Solidworks**, **Spice**, **Eagle**, **Processing**
- Worked with **Microcontrollers**(ATMEGA 328, 8051), IMU and other basic ICs

Positions of Responsibility

- **Convener of Robotics Club of IIT Bombay**, part of **Students' Technical Activities Body, IIT Bombay**: [April 2013 – Till date]
 - Organized a Remote Controlled car making competition, XLR8 with about 100 first year students' teams participating in it. Mentored 5 teams(20 students) for the same.
 - Conducted sessions for the technical aspects of car
 - Conducted hands-on workshop for making hexapod robot with participation of 12 teams
- **School Captain** of school in 12th class
- **Organiser** in **Mood indigo 2012** (Institute Cultural Festival) for Competition department

Co-curricular activities

- **Technical and Scientific Activities:**
 - Made a hand gesture controlled robot for the Magneto competition in Techfest 2014
 - Made a line following car for a Line Follower Competition using microcontroller.
 - Represented Hostel in **Annual Electronics General Championship**, organized by electronics club, IIT Bombay.
 - Represented State at National Level among students from **more than 1000 Kendriya Vidyalayas** in **Jawaharlal Nehru National Science Exhibition 2010**.
- Working as a volunteer for **Abhyasika**, a student initiative from IIT Bombay to teach children in a nearby slum.
- **Speaking skills:**
 - Active member of Institute Hindi and English Speaking Arts Clubs.
 - Stood second in **Annual Hindi Debate General Championship**, institute wide inter-hostel championship.
 - Participated in **English Debating Tournament** at **Indian Law School, Pune** and in **Hindi Poetry Competition at Unmaad**, annual cultural festival of **IIM Bangalore**.
 - **Anchor** at freshmen Institute Technical Orientation and Hostel-1 valedictory function
- **Sports and Adventure:**
 - Did **Trekking** for 120km over 9 days at Atal Bihari Vajpayee Institute of Mountaineering and applied sports, Manali in May 2009.
 - Undertook an Intensive course in **Judo** and self defense from Bombay Judo Club for 2 ½ month.
- **Scouting:** Was part of Bharat Scout & Guide in school days.