



**Mrinal Joshi**  
**Electrical Engineering**  
**Indian Institute of Technology, Bombay**  
**Specialization: Communication & Signal Processing**

**10D070028**  
**UG Second Year**  
**Female**  
**DOB: 13-08-1992**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	7.90
Intermediate/+2	CBSE	ST. John's Sr. Sec. School	2010	91.40
Matriculation	Maharashtra State Board	PS. Oxford High School	2008	87.38

#### ACADEMIC ACHIEVEMENTS

- Secured **ALL INDIA RANK 316** IN THE **JOINT ENTRANCE EXAMINATION** [2010]
- Secured a score of **382 OUT OF 450** in the **BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE** entrance examination [2010]
- **Topper** of Course **ENGINEERING DRAWING AND GRAPHICS** amongst batch of 240 STUDENTS [2010]
- Secured **national rank 168** in **11<sup>th</sup> National Science Olympiad** [2009]
- Secured **All India rank 142** IN **11<sup>th</sup> National Science Olympiad** [2008]
- Secured **rank 26** in **Dr. AS Rao Awards Council** [2006]
- Secured **national rank 11** in **Sir CV Raman Young Genius Award** [2006]
- Secured **rank 11** in **Mathematics Scholarship Examination ,Abacus Vision** [2004]

#### PROJECTS UNDERTAKEN

- **LASER COMMUNICATION:** [May-June 2011]  
Electronics club summer project, IIT Bombay  
Worked in a **team of five**.  
Worked on **wireless transmission** and **reception of analog data via laser**. Used a laser diode circuit to transmit data digitally.
- **FOOSBALL**  
Prof. D.B. Phatak, IIT Bombay [Oct- Dec 2010]  
Developed foosball game using **C++ programming language** and **graphical user interface**. Implemented the proper game of foosball with seven user players against computer players.
- **DEVICE OPENING:**  
Prof. J.Vasi  
Worked in a **team of three**. Made a term paper and slideshow about the **working of mobile phone**. Studied the **basics of mobile electronics** and signal processing. Opened and studied the circuit of a cellular phone.

#### TECHNICAL PROFICIENCY

Programming languages: **C, C++ ,MATLAB**

Microcontroller programming: **Atmega 8, 16; c8051f12x** Web Development: **HTML, CSS**

OS: **Windows 7/ XP / Vista, Ubuntu**

#### POSITION OF RESPONSIBILITIES

- **Tech Mentor, STAB IIT Bombay** (Aug-Sept 2011)  
Mentoring 1st year students for TechOne ( the institute level bot making competition ) Guided them in building a manually controlled bot capable of negotiating different kinds of obstacles. Mentored students taking part in Line Following competition, held at institute level.
- **Coordinator, Techfest 2012** (Aug 2011- till date)  
Appointed Transport Coordinator for the lecture series held in Techfest. Worked on the transport facility for all international lecturers including airport pick up, drop off and local tour during their stay in Mumbai.

## EXTRA CURRICULAR

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### SPORTS

Part of the **Inter IIT Basketball** camp held in [ Dec 2010]  
Interested in sports like swimming, table tennis and badminton.

### TECHNICAL

Participating in **Cricbot**, an image processing based competition held in Techfest.

Participated in the institute level competition "**Trackmania**". Made a **wirelessly controlled machine** to traverse on a given track full of hurdles.

Participated in "**Line follower**" competition. Made an autonomous machine that can **follow a specific colored line** painted on a surface of different contrast, such as white on black.

**Swarm Robotics, Aagomani**: Certificate of Achievement for completing the workshop on Swarm Robotics conducted in **Aagomani, 2011, technical festival of Department of Electrical Engineering, IIT Bombay**

### DEBATING

Won **special mention** in the debating competition of "**Freshiezza**", a three day event for all freshmen.

Won various prizes at **debating and elocution competitions** at school level.

Was the **anchor** of the Independence and Republic day functions at school.

## RELEVANT COURSES TAKEN

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- DEPARTMENT COURSES:

Signals and Systems, Network Theory, , Electrical Machines and Power Electronics Analog Circuits, , Electronic Devices and circuits, Digital systems, Analog lab, Digital circuits lab, Machines lab, Electronic Devices Lab

- COMPUTER SCIENCE AND STATISTICS:

Introduction to Probability Theory, Computer Programming and Utilization, Data analysis and interpretation, Experimentation and Measurements Lab

- MATHEMATICS: Calculus, Linear Algebra, Differential equations, Complex analysis .