



**Sagar Modi**  
**Mechanical Engineering**  
**Indian Institute of Technology, Bombay**  
**Specialization: None**

**100100021**  
**UG Third Year (B.Tech.)**  
**Male**  
**DOB: 09/05/1991**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	8.17
Intermediate/+2	ISC	Smt Sulochanadevi Singhanian High School	2009	84.83
Matriculation	ICSE	Smt Sulochanadevi Singhanian High School	2007	92.14

## SCHOLASTIC ACHIEVEMENTS

- Secured an **All India Rank 370** (99.92 percentile) among 470,000 candidates in the IIT-JEE 2010 and was the **District Topper** (Thane district).
- Was 1 of 30-35 students selected in the **Regional Mathematics Olympiad** (RMO 2007) from Greater Mumbai region.
- Obtained the **All India Rank 11A** in the 40<sup>th</sup> National Mathematics Talent Competitions 2008 conducted by **AMTI** (Association of Mathematics Teachers of India).
- Won **Silver** medal at the **27<sup>th</sup> Mathematics Olympiad 2008** conducted by the Mathematics Association, I.I.T. Bombay.
- Awarded honorary scholarship for being among the top 50 (**more than 99.9 percentile**) in the **High School Scholarship Examination '04** conducted by the Maharashtra State Council of Examinations (MSCE).

## POSITIONS OF RESPONSIBILITY

- Co-ordinator**, Competitions at **Mood Indigo '11**, the cultural festival of IITB (*The largest festival of its kind in India*):  
Managed a team of organisers with the task of planning and executing all competitions under the genre of music.
- Organiser**, Technoholix at **Techfest '10**, the technical festival of IITB:  
Had the responsibility of escorting and interacting with foreign artists.

## TECHNICAL PROFICIENCY

- Internship: **Larsen & Toubro Limited, Heavy Engineering Division** (*among the top 5 fabrication companies in the world*) (May – July '12)
  - Worked as an In-Plant Trainee for a period of 8 weeks at the **Hazira Manufacturing Complex**, gaining a clear understanding of the processes involved in the fabrication of an Engineered-to-Order product and the challenges faced in the fabrication industry in general.
  - Observed and supervised various stages of manufacture of '**Coke Drums**' involving processes such as Rolling (Hot and Cold), Cutting (Gas cutting, Plasma cutting, Water-Jet cutting), Welding (SAW, SMAW, TIG), Machining, Blasting, Gouging, etc specializing in **Submerged Arc Welding**.
- Secured **1<sup>st</sup> place** in **Technothlon** at **Techniche '08**, the annual technology festival of IIT Guwahati.
- Trackmania: (*competition organised for the freshmen by the Technical club of IITB*)  
Built a miniature car with differential turning mechanism which had the following distinctions:
  - The **only car to have VSD** (Variable-Speed Drive) in all motors, achieved electrically using potentiometers.
  - The only car capable of running **up-side-down** with the same controls in case of toppling over the obstacles

- Lego Robotics workshop:
  - Built **Line follower** bot which successfully completed the track in good time.
  - Built **Sensory bot** which responded to various visual, auditory and physical gestures using the relevant sensors, programmed using the Lego UI.
- Course Project: *(As a part of the CS101 course)*  
Made the AI and Graphic Interface for the game of 'Battleships' (single and multi player) using **C** and **FLTK**.
- Computer skills:
  - Microcontroller programming using **KEIL  $\mu$ Vision** and **Flash Magic**, Simulations using **LT Spice** and **LabVIEW**.
  - Other software: C/C++, FLTK, MATLAB, Mathematica, Solidworks, Sony Vegas, Photoshop, MS office.

## RELEVANT COURSES (As on April 2012)

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- Core courses: Solid Mechanics, Engg Mechanics, Thermodynamics, Engg Drawing, Workshop (Lab), Fluid Mechanics, Strength of Materials, Solid Mechanics (Lab), Manufacturing Processes I, Manufacturing Practices (Lab)
- Other Courses: Economics, Linear Algebra, Calculus, Differential Equations, Numerical Analysis, Modern Physics, Data Analysis and Interpretation, Computer Programming and Utilization, Chemistry, Introduction to electrical and electronic circuits, Engg Metallurgy.

## EXTRA CURRICULAR ACTIVITIES

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### Sports:

- Completed and was awarded the **A grade** in a 26-Day **Basic Mountaineering Camp** (BMC) from ABVIMAS, Manali gaining a maximum height of **4500m** (15000 ft).
- Was part of the team winning **Gold** in the annual **Table-Tennis General Championship** at IITB.
- Represented college in **DSO** (District Sports Office) Tournaments of Cricket and Table-Tennis.

### Music:

- Studied Hindustani Classical music for 4 years and passed the **Prarambhik** (Pre-matric) and **Praveshika Pratham** (Matriculation) courses in the disciplines of **Vocals** and **Harmonium** conducted by the *Akhil Bharatiya Gandharva Mahavidyalaya Mandal*. (1998 - 2002)
- Passed Grade 1 of the Trinity exam for Electronic Keyboard conducted by the **Trinity College of London** with **Merit**. (November '05)
- Awarded the **Hostel Cultural Color** for contributions in the field of Music and Dance during the sophomore year.
- Performed as a Keyboardist in **DOC** (Digital Orchestra of Children), **India's 1<sup>st</sup> Digital Orchestra** at various concerts including Press Club, Mulund Bunts, etc.
- Secured **1<sup>st</sup> Place** in **Indian Band** event at **Freshiezza '10** organised for the freshmen at IITB.

### Dance:

- Was part of the Hip-Hop Dance team which secured **1<sup>st</sup> Place** in **Gyrations '11**, the dance General Championship at IITB.
- Was part of the Dance team which secured the **1<sup>st</sup> Place** in the Performance and Arts Festival (PAF '11).
- Secured **3<sup>rd</sup>** place in the event '**Save the Last Dance**' at **Choreo Nite**, Mood Indigo '11.
- Secured **1<sup>st</sup> Place** in **Group Dance** event at **Freshiezza '10** at IITB.