



Anurag Meena  
Department of Physics  
Indian Institute of Technology, Bombay.

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UG Second Year  
Male  
DOB: 18/4/1993

Examination	University	Institute	Year	CPI/%
Graduation	IIT Bombay	IIT Bombay	2012	5.5
Intermediate/+2	CBSE	St. Paul's Sr. Sec. School, Kota.	2011	90
Matriculation	CBSE	St. Paul's Sr. Sec. School, Kota.	2009	94.6

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### Projects

#### ❖ Capacitance Sensors and Electrical Oscillators (7 December 2012 – 10 January 2013)

Guide- **Prof. Maryam Shojaei Baghini, Dept. of Electrical Engg., IIT Bombay.**

Developed a Capacitance meter using Microcontroller (ARM series M-4).

Studied and implemented different electrical oscillator circuits for measuring capacitance on the basis of resonant frequencies obtained.

This was done for implementation into a sensor being designed.

#### ❖ Coaxial Copter (June 2012)

- **Successfully Designed and Fabricated a Coaxial Copter**
- Capable of Vertically taking off ,landing and a future prospect of manoeuvring using propellers mounted coaxially by changing angular momentum along the axis and compiling it with data from accelerometer and gyroscope
- Currently Working on its future prospect of Manoeuvring involving an active system of changing centre of mass compiled with accelerometer and gyroscope data.

### Technical Competitions

#### ❖ American Society for Mechanical Engineers(ASME)- Student Design Competition (SDC) 2013 (July 2012-Ongoing)

##### Remote Inspection Vehicle

**Designing and developing a Remote Inspection Device** capable of being operated remotely for inspection tasks to prevent human casualties at times of calamities resulting in an hazardous environment. The device would be simulated under the conditions as in Japan's Nuclear Mishap and perform a set of tasks at ASME SDC 2013.

#### ❖ American Society for Mechanical Engineers(ASME)- Student Design Competition (SDC) 2012

Guide: **Prof. C. Amarnath**

**Designing and developing four self propelled bots driven by non conventional sources of energy capable of accomplishing the given set of tasks**

(September 2011 – February 2012)

**Part of 8 membered team** involved in designing and fabricating machines for ASME-SDC

- Designed and manufactured the above four bots as part of *International Mechanical Engineering Congress and Exposition (IMECE)* completing an energy relay triggering the subsequent vehicle and traversing 12 metre distance in 5.97 seconds using 4 different non conventional energy sources.
- **Won** the National Qualifier of **ASME SDC** defeating 15 other teams at IIT-Roorkee and securing **2nd Position** among 13 countries participating from the District division at BITS, Dubai.  
**Won Second Position at World Finals** in Houston, Texas.

## Skills

- **Programming Languages:** Advanced C/C++, Basic Verilog, Python, PHP
- **Tools and Packages:** Solidworks, MATLAB, Scilab, Eagle CAD, LTspice, LabView, Code composer Studio
- **Electronics:** Analog and Digital signal Manipulation, Microcontroller interfacing(ARM, AVR, Arduino, Raspberry pi), PCB designing, Wireless communication protocols.
- **Operating Systems:** MS Windows, Linux

## Positions of Responsibility

### ➤ Member, Innovation Cell IIT Bombay

*Innovation Cell acts as a platform for students to innovate new ideas using their creativity in the campus*

- Conducted DEW (Design Exploration Workshop); first of its kind in IIT Bombay that aimed to generate innovative solutions to daily problems
- Managed a budget of Rs.50,000 spent on the expenditures regarding various competitions and projects.

### ➤ Technical Secretary, Hostel-2 , IIT Bombay

(July 2012-Till Date)

- **Elected for Hostel Council 2012-2013, Managing** a budget of Rs.35,000 during the span and catering to the technical needs of hostel for Technical activities and competitions.
- **Participated in Technical Competitions on behalf of hostel and encouraged huge participation from hostel inmates**

### ➤ Web Nominee, Awaaz, IIT-Bombay

(June 2012-Ongoing)

- Building a New Website for Awaaz, Hindi Media Body, IIT Bombay and catering their Web Related Needs and Developments.

## Awards and Achievements

- **National Talent Search Examination (NTSE) Scholar** , Qualifying all three rounds(**State[38<sup>th</sup> rank]**, All India and Interviews) and making it to the **top 1000 candidates selected from India** for the Scholarship.
- **Cleared ALL INDIA PRE MEDICAL ENTRANCE TEST (AIPMT)** uptill Mains for entrance to Premier Medical Institutions in India
- **Runner Up in ASME-SDC 2012 in World Finals** at Houston, Texas in November 2012.

## Key Courses

- **Electrical:** Electricity and magnetism, Introduction to Electronics and Electrical and Engineering
- **Computer Science:** Computer Programming and Utilisation
- **Mathematics:** Calculus, Differential Equations, Linear Algebra, Complex Analysis
- Optics, Classical Mechanics

**Undergoing Coures:** Quantum Mechanics, Thermodynamics, Numerical Ananysis

**Sit Through Course:** Mixed Signal Analog VLSI Design

## Extra Curricular Activities

- **Part of Indian Contingent** at  
**Asia Pacific Jamboree- 2005, Bangkok, Thailand.**  
**World Jamboree- 2007, London, United Kingdom.**
- **National Service Scheme: GRA**