
Scholastic Achievements

- Secured an All India Rank of **1023** in **IIT-JEE 2011** (*out of 4,85,000 candidates*)
 - Achieved an All India Rank of **966** in **AIEEE 2011** (*out of 11,00,000 candidates*)
 - Secured an All India Rank **1317** in **ISAT 2011** for admission to the Indian Institute of Space Science And Technology (*out of 1,00,000 candidates*)
 - Shortlisted for prestigious **KVPY scholarship** for excellency in science and mathematics (*2011*)
 - Achieved **100%** marks in Mathematics in XII CBSE (*2011*)
 - Awarded **AP grade** in Electricity And Magnetism for exceptional performance (*2011*)
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Academics and Technical Projects

Self-Balancing Bot (*May 2012- Till Date*)

- Made the mechanical design of two wheeled robotic vehicle which balances its weight, similar to inverted pendulum problem
- Calibrated accelerometer using gyro model to get nearly accurate output
- Designed a motor driver circuit for stepper motor
- Wrote a program in Arduino for controlling rpm and number of steps of motors from the input given by accelerometer. Program written for microcontroller ATMEGA 328
- Implemented PID algorithm to improve the control which will drive the motors accordingly to get a balancing state of the vehicle

Course Project – Encryption and Decryption of a file (*Sep-Nov 2012*)

Guided by Prof DB Phatak, CSE Department, IIT Bombay

- Wrote a program in C++ which encrypts the data of a file by changing ASCII code of each character using rand function generated by a given password
 - Worked with team of 6 and designed user interface which have options of encrypt, decrypt, password, and choose file using EzWindows API in C++
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Relevant Courses

Computer Programming And Utilisation	Data Analysis And Interpretation
Electricity And Magnetism	Calculus
Solid Mechanics	Linear Algebra
Introduction to Flights	Differential Equation
Introduction to Electrical Engineering	Signals And System
Fluid Mechanics	Engineering Drawing
Introduction to Engineering Design	Aerospace Measurement Lab

- **Minor-** Pursuing a minor in **Electrical Engineering** and doing a course of Signals And System which deals with representation and interpretation of signals

Software Skills

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| • Software tools: | MS Office, SolidWorks |
| • Programming Language: | C++ |
| • Operating Systems: | Windows, Linux |
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Positions of Responsibility

Hostel Secretary for Technical Activities *(Jul 2012- Present)*

- Represented Hostel in Institute Level Technical General Championship
- Organised Debugging session for more than 30 freshmen for the biggest freshmen technical competition XLR8. Hostel freshmen got 1st position and Award for the Best Design

Technical Mentor *(Jul 2012- Present)*

- Mentored over 15 freshmen for robotics competition participated by more than 400 students
- Working with Student Technical Activity Body (STAB) and helped it to organise XLR8, freshmen's Technical competition

Mood Indigo *(Dec 2011)*

- Volunteered as an organiser and worked under Competition department, organised a street play competition for more than seven qualifying teams

Techfest *(Jan 2012)*

- Worked as an organiser in Robowars department and handled two workshops regarding hexapod and android software
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Extra-Curricular

Technical Activities

- **TechOne-** Made a motor driver circuit for a wireless manually controlled robotic car and successfully completed the track *(Aug 2011)*
- **Line Follower-** Designed an autonomous robotic car which follows a white line, implemented by using IR sensors, ATMEGA 328 microcontroller and Arduino software. Placed 4 amongst 35+ teams *(Oct 2011)*
- **Robocon-** Built a manually controlled wired robotic car which can pick up a block and place it to the desired location *(Sep 2011)*

National Cadet Corps *(Jul 2011- Mar 2012)*

- Worked with 7.62mm Self Loading Rifle and 0.22 Calibre Bolt Action Rifle in winter camp. Completed one year training and achieved 'B' certificate

Rubik Cube World Record *(Mar 2012)*

- Was a member of 937 people who set the world record for most number of people solving the 3X3X3 cube at same place in thirty minutes

Performing Art Festival *(Mar 2012)*

- Worked in Prod department of this biggest inter hostel cultural event and made a rotating platform

Zephyr *(Feb 2012)*

- Made a balsa wood glider and participated in the competition, worked as an organiser and helped to organise lectures and sessions (Department's Annual Festival)

Taekwondo *(Sep 2004)*

- Awarded Bronze medal at district level championship in Almora