Contact Details:

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Scholastic Achievements:

In the year 2010,

- Selected for **Radio Astronomy Winter School** organised by **National Centre for Radio Astrophysics (NCRA)** and **Inter-University Centre for Astronomy and Astrophysics (IUCAA)** from 20 to 28 December 2010, at **Pune University**.

- Secured **9+ Semester Performance Index (SPI) (9.15)** in Second Semester.

- **Stood 6th** out of around 700 students in the **"Data Analysis and Interpretation"** institute course, in Second Semester.

- Secured **Change of Branch** from B.Tech in "Metallurgical Engineering and Materials Science" to B.Tech in "Engineering Physics", after Second Semester, on the basis of the academic performance in the first two semesters.

In the year 2009,

- Achieved an **All India Rank 2054** in **Indian Institute of Technology Joint Entrance Examination (IITJEE) 2009** out of around 400,000 aspirants**.**

- Achieved a score of **331 out of 450** in **Birla Institute of Technology and Science Admission Test (BITSAT) 2009**.

Projects:

Invariant Mass Reconstruction   **July '11-November '11**
At **Indian Institute of Technology (IIT), Bombay**
Guide:Prof. Raghava Varma

- Used PYTHIA, a program for the simulation of high energy physics events, to simulate proton-proton collisions at 14 TeV.

- Reconstructed the invariant mass of the rho-meson using the momentum and energy data of the generated pion pairs.

- Learned about various particle detectors used in the ALICE experiment at the Large Hadron Collider (LHC).

Velocity Slice Imaging and Time of Flight Mass Spectroscopy   **May '11 - July '11**
At **Tata Institute of Fundamental Research (TIFR), Mumbai**
Guide:Dr.Vaibhav Prabhudesai

- Carried out simulations of the ion optics of the existing velocity slice imaging set up.

- Optimized the geometry for better performance of the velocity slice imaging set up for the purpose of imaging the dissociation dynamics of molecular negative ions.

- Implemented these derived conditions in the experimental set up and tested its performance.

Finger Print Matching Software   **Aug '09 - Nov '09**
At **Indian Institute of Technology (IIT), Bombay**
Guide: Prof. Deepak Phatak

- Worked on Finger Print Identification and Duplicate Checking Algorithm in the Computer Programming and Application Course Project.

- Suggested a new algorithm for matching finger prints using relative positions of minutiae.

Technical Skills:

- Proficiency in Programming Language: **C, C++**

- Software Proficiency: **Mathematica, Matlab, Scilab,PYTHIA, SIMION, LTSpice, TINA**

Courses:

- Physics: Quantum Mechanics (I, II, III), Statistical Mechanics, Electromagnetic Theory, Methods in Experimental Nuclear and Particle Physics, Photonics, Wave Oscillations and Thermodynamics, Optics, Classical Mechanics, Non Linear Dynamics, Continuum Mechanics, Electrodynamics.

- Maths: Calculus, Linear Algebra, Differential Equations, Complex Analysis, Numerical Analysis.

- Electrical and Electronics: Introductory Course, Analog Electronics.

- Lab Courses: Physics, Engineering Drawing, Chemistry, Workshop Practice, Experiment and Measurement Lab, Analog Electronics, Digital Electronics and Microprocessor Programming.

Co-curricular Activities:
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- Participated in **Freshiezza 2009** under **solo music category (Tabla).** Also I have passed Madhyama Final Year (Fourth Year) in **Instrumental Music**, Non Percussion **Tabla** (2005).
- Completed **Basketball training** under the program of **National Sports Organization** (2009).
- Attended **Swimming Coaching Course** (2005) as an **advanced player** organised by LNUPE, Gwalior.

Particular Interests:
I have an avid interest in Experimental Particle Physics, Thermodynamics and Data Analysis.