**ACADEMIC ACHEIVEMENTS**

* + - * Currently availing a scholarship from the **Government of India** under the **DST- Inspire Programme.**
* Stood among the **top 1%** at **Joint Entrance Examination 2009** conducted by the Indian Institutes of Technology.
* Placed in top **0.5%** in All India Engineering Entrance Examination
* Was Selected to attend **Vijyoshi Camp 2009** for promoting scientific research
* Was ranked in “**High Distinction**” category in the **Australian National Chemistry Quiz**
* Awarded special prizes by school for exceptional performance in Science

**KEY RESEARCH PROJECTS**

**STUDY OF ELECTRICAL PROPERTIES OF CONDUCTING POLYMERS:** *MAY 2011 TO PRESENT*

* **Guide:** Prof A. Q. Contractor. Dept. of Chemistry IIT Bombay.
* Fabricated interdigitated electrodes with different electrode spacing of 1µm, 10µm and 100µm.
* Using gold chrome deposition on silicon wafer followed by optical lithography and etching.
* Deposited Polyanaline between the electrodes.
* Studied change in properties of the polymer with the change in electrode separation

**CARBON NANOTUBES PROJECT:**  *JULY 2011 TO PRESENT*

* **Guide:** Prof A. Q. Contractor. Dept. of Chemistry IIT Bombay.
* Found agglomeration of Cnt’s when put in copper salt solution while depositing copper between multiwalled Cnt’s.
* Used surfactants to disperse Cnt’s in solution.
* They displayed previously undiscovered behavior when seen under AFM.
* Currently working on this behavior shown by multiwalled Cnt’s

**SYNTHESIS OF SILVER NANOPARTICLES:** COURSE PROJECT

* Prepared silver nanoparticles as a course project with a demo and presentation
* Used silver salt and reduced it with a strong reducing agent under cold conditions.

**INDUSTRY EXPERIENCE AND INTERN**

**DEFENCE LAB JODHPUR**: RESEARCH INTERN *JUNE 2010 TO JULY 2010*

* Synthesized magnetic fluid by reducing the size of Magnetite (Fe3o4) nanoparticles.
* Preparation was done using two different reagents with FeCl3 and FeCl2 to test the effect of reagent on formation of the nanoparticles and nanofluids.
* Also varied the pH to check its effect on formation of nanoparticles.

**RASHTRIYA CHEMICALS AND FERTILIZERS LTD. SULPHURIC ACID PLANT VISIT:**

* Studied the functioning of a sulphuric acid manufacturing plant.
* Followed by Detailed report and presentation.

**OTHER ACADEMIC PROJECTS**

**ELECTRONICS CLUB PROJECT:**

* Made a self adjusting window blinds which adjusted itself according to intensity of light or mode set by the user.

**C++ UID PROJECT COURSE PROJECT**

* Wrote code for working of fingerprint recognition device to be used for registration of students of IIT Bombay.

**LABORATORY EXPERIENCE**

* INORGANIC CHEMISTRY LAB: Oxidation-Reduction Titrations, Gravimetric Analysis, Qualitative Analysis.
* PHYSICAL CHEMISTRY LAB: Electrochemical cell, miscibility of solutions, ternary phase solutions
* ORGANIC CHEMITRY LAB: vacuum distillation, chromatography,esterification reaction, claisen Schmidt reaction ,synthesis of organic compounds
* PHYSICS LAB
* ENGINEERING DRAWING LAB

**COURSES UNDERTAKEN**

* Molecular Cell Biology, Molecular Biology.
* Computer Programming with C++
* Introduction to Chemical Engineering.
* Inorganic Chemistry (Complex Compounds).
* Chemical and Statistical Thermodynamics
* General Calculus, Vector Algebra, Ordinary Differential Equations, Linear Algebra.
* Organic Chemistry (General, Reaction mechanisms, Carbonyl Chemistry, Enolate Reactions).
* Physical Chemistry(Electrochemistry) , Quantitative Analysis.
* Modern Physics, Optics, Electricity and Magnetism
* Economics, Sociology
* Data Analysis and Interpretation, Instrumentation and Measurement Laboratory.

**SOFTWARE SKILLS**

* Photoshop, AutoCAD, Picasa, scilab ,C++

**POSITION OF RESPONSIBILITY**

* Coordinator in Services and Pro Nites Departments of MOOD INDIGO 2010
* Coordinator in Ozone Department of TECHFEST 2011,
* Sports Secretary of Hostel 2
* Sports Councilor Hostel 2 : Responsible for all sports events in the hostel and between hostels for Hostel 2

**EXTRA-CURRICULAR ACTIVITIES**

* Was part of National Sports Organization Football Team in IIT Bombay during my first year.
* Underwent NCC (National Cadet Corps) training and passed ‘A’ ‘C’ and ‘B’ certificates
* Part of hostel sports teams in football kho-kho and hockey
* Part of hostel teams in dramatics inter hostel events