## ACHIEVEMENTS & AWARDS

* Awarded **Gold Medal** by **Chief Minister of A.P** for academic excellence in higher secondary studies (2007)
* Awarded ‘**Excellence Certificate’** for outstanding work as mentor given only to 6 out of 168 mentors (2012)
* Awarded **Sports Color** for **two consecutive years** (given to 4 out of 450 students) and **Special Mention** for fetching highest points in inter hostel General Championship which led to winning the overall GC (2009-12)

**INDUSTRIAL EXPERIENCE**

**Rallis India Ltd., a Tata Enterprise, Gujarat** (May’11 – July’11)

**Topic: Milling by Ultrasonication**,*a cost reducing project in formulation of fungicides*

* Suggested the use of **hydrodynamic cavitation** technology instead of ultrasonication and successfully reduced the particle size distribution to cut the capital cost by **20%** and running cost by **16%** per annum
* Proposed an alternate use for hydrodynamic cavitation in **waste water treatment** and achieved **56%** reduction in chemical oxygen demand saving **25%** of the overall costs
* Presented the implementation plan to the **Vice president** and was **appreciated** for the work

**Amines and Plasticizers Ltd, Navi Mumbai** (May’10 - July’10)

**Topic: Studies in Ethanolamines**, *enhanced safety in ethanolamines handling*

* Worked on qualitative, quantitative and safety analysis of their major product ethanolamines in R&D section
* Prepared a detailed report on the safety handling of reactants and transportation cum storage of product
* Was provided **excellent feedback** for the work

**Rashtriya Chemicals and Fertilizers Ltd., Mumbai,** *Industrial Visit*  (Jan’09 - Apr’09)

* Examined unit operations and processes in the production of sulfuric acid and methanol
* Performed mass and energy balances to calculate the required quantity of raw material

**KEY ACADEMIC PROJECTS**

**Master’s Thesis: Adsorption of benzene on mesoporous silica** (Jan’12 – present)

* Synthesized mesoporous silica material (SBA-15) and performed adsorption experiments for benzene-water system to adsorb benzene on silica particle
* Characterized the material using FTIR, TEM & BET techniques to explore the physical nature
* Generated hydrophobic groups on the surface to attain **125%** enhancement in adsorption of benzene

**Plant Design for production of dioctyl phthalate (DOP)** (Jan’12 – Apr’12)

* Developed a process flow diagram and optimized the production conditions for dioctyl phthalate using ASPEN and assessed the effect of various parameters on the product quality by parametric studies
* Designed and performed cost analysis of the reactor, distillation column and heat exchanger network
* Analyzed the dioctyl phthalate market & performed profitability analysis for a 1000 MTA of DOP plant

**Quantitative Risk Assessment (QRA) for a plant at design stage** (Jan’12 – Apr’12)

* Investigated the data of various causes for accidents in a chemical industry to estimate the effect of various parameters at the design stage
* Ascertained the individual & societal risk involved at the design stage of the production plant
* Performed a case study on QRA of a gas pipeline system and determined the frequency of leaks and ruptures

**Production of Biodiesel**  (Jan’11 - Apr’11)

* Coordinated with a team of 6 in standardizing the process and postulated pros and cons of **scaling up**
* Characterized biodiesel through quality control tests such as HPLC, Cloud point, Pour point etc.
* Performed material, energy balances and cost analysis by mapping the lab data to plant scale

**TECHNICAL SKILLS**

* **Programming Language:** C++, MATLAB, SciLab, Java, HTML, CSS
* **Software Proficiency:** Microsoft Office, Photoshop CS3,COMSOL, ASPEN, Fluent, ArgusLab, Simulink, Origin
* **Experienced in usage of research apparatus:** UV spectroscopy, Spectroflourimeter, GC, IR spectrometer, Washburn method, TGA, NMR, HPLC, HPTLC, Ellipsometry, Atomic microscopy, FTIR, TEM and BET

## POSITIONS OF RESPONSIBILITIES

**Institute Student Mentor** (2010-present)

* **Only student in the institute** to be selected as a mentor for **3** consecutive years on the basis of peer review and mentorship skills
* Guided **38** freshmen, addressing their concerns through **individual counseling** for their overall development
* Initiated **‘Self performance assessment mechanism’** to make the students attentive of their performance in tests & class attendance
* Introduced **Undergraduate Teaching Assistantship** (additional help sessions) for academically weak students which helped attain unprecedented **100%** passing rate

**Manager, Publicity, Nthwall Entertainment Pvt. Ltd., MUMBAI** (May ’12 – July ’12)

* Led a team of 5 to implement effective ways to publicize the Entertainment Hub across major cities
* Initiated “**Work from Home - Internship opportunity**” to individuals for publicizing Nthwall
* Coordinated with the events team to devise alternate strategies and initiated competition flyers and lucky draws to spread the buzz among people
* Part of team responsible for recruiting Campus Ambassadors through telephonic interviews

**Captain, Athletics Team, IIT Bombay** (2011-12)

* Designed and implemented a new rigorous training program ‘**October camp’** in consultation with the coach resulting in significant improvement of stamina and consistency among athletes
* Led a team of 15 best athletes (selected out of 300) to victory (**Gold** among 15 IITs participated) at the 47th Inter-IIT sports meet held at IIT Kharagpur

**EXTRA CURRICULAR ACTIVITIES**

**Inter IIT Sports** (2008-12)

* Discovered myself as a long distance runner after coming to IIT and Won **Bronze medal** in 1500 meter race and secured the **4th**position in 5000 meter race for **three** consecutive years
* Part of IIT Bombay sports team for **4 consecutive years**, winning overall championship 2 consecutive years
* Won **3 Gold, 4 Silver and 3 Bronze** medals in track events viz. 800, 1500 and 5000 meter races and brought my hostel reputation back during 7th consecutive win by contributing highest points in Inter-hostel sports GC
* Won **1 Gold, 1 Silver and 2 Bronze** positions in 6 General Championship cross country races

**MISCELLANEOUS**

* **Teaching Assistant** for **Mathematics**, 2nd and 4th year Chemical engineering lab courses (2012-present)
* **Operations Manager** at Legal Moksha, an initiative to help create Social and Legal awareness (2012)
* Was part of the data development team of Netapedia.in, an information portal about Indian politics (2011)
* Holder of **Yellow Belt** in the Olympic sport **JUDO** (2011)