



**VIKAS KUMAR RAHI**  
**Chemical Engineering (B.Tech)**  
**Indian Institute of Technology, Bombay**  
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**UG Second Year**  
**Male**  
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## OBJECTIVE

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To strive for excellence in every endeavor I am committed to along with enhancing my knowledge and skills

## ACADEMIC ACHIEVEMENTS

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- Received **Undergraduate Research Award**, 2011 from the institute in the field of **Rare metal extraction from liquid membrane**
- Recipient of **Merit cum means scholarship** at the institute
- Presently, having a CPI of 6.98 on 10 point scale
- Scored 72.6 % in Matriculate from Bihar Secondary Examination Board and 87.8 % in Intermediate from CBSE Board
- Placed at 10<sup>th</sup> position in **National Level Science Talent Search Examination** in 2007 conducted by Unified Council, Hyderabad
- Achieved 11<sup>th</sup> position in **National Science Olympiad**, 2007 conducted by Science Olympiad Foundation
- Amongst the top 1% of 40,000 students appeared in **National Standard Examination in Physics**, 2008
- Amongst the top 1% of 25,000 students appeared in **National Standard Examination in Chemistry**, 2008

## INTERNSHIP

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**Atomic Energy Regulatory Board, Industrial Plants Safety Division, Mumbai**

**(9<sup>th</sup> May - 20<sup>th</sup> June, 2011)**

Mentor: *R. Bhattacharya, Secretary AERB & Director IPSD & ITSD*

- Case study on **Quantitative Risk Analysis** of 130 MTPA Tri Butyl Phosphate Plant (TBP) including different Hazard Identification Techniques, various approach models, etc
- Simulated consequence analysis of Hazardous inventories in a chemical plant using softwares **Phast** and **Aloha**

**Oil and Natural Gas Corporation Limited, Uran Plant, Mumbai**

**(7 May-21 June, 2010)**

Mentor: *Sushil Kumar Gupta, Chief Engineer (Prodn.)*

- Gained exposure in **Oil & Gas Process Plant Operations** and analyzed the mass flow rates, temperatures of feed, products and pollutants in different units
- Performed **Material balance** on each unit and recommended suggestions to improve efficiency

## RESEARCH EXPERIENCE

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**Extraction of Molybdenum from dilute aqueous solution**

**(Jan, 2011- still in progress)**

Guide: *Prof. Juvekar (Department of Chemical Engineering)*

- Working on a real industry project with BARC, wherein **Distribution Coefficient** of rare metal is predicted from **interfacial adsorption parameter**
- Equilibrium studies for **Solvent Extraction** and mass transfer in **Bulk Liquid Membrane** is carried

## ACADEMIC PROJECTS

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### Rashtriya Chemicals and Fertilizers Ltd.

(Jan, 2010)

Guide: *Prof. Sanjay M Mahajani (Department of Chemical Engineering)*

- Examined the working of “**Sulphuric Acid Plant**”, analyzed DCDA (Double Conversion Double Absorption) technology and amassed information regarding the regulation of SO<sub>2</sub> emissions
- Formulated the comprehensive report and delivered it with the help of a power point presentation

### Finger Print Analysis

(Sep-Nov, 2009)

Guide: *Prof. Deepak B. Phatak (CSE Department)*

- Extensively used C++ coding to create a program to register, process and analyse finger prints of students of IIT Bombay
- The application could differentiate students and provide their database on basis of finger print

## POSITIONS OF RESPONSIBILITY

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### Manager, Avanti, Mumbai

(July, 2011 – present)

- A **student-run** social enterprise currently based out of 5 IITs mentors low income students who face several obstacles in gaining admission to and succeeding at India’s best universities
- Managing more than 250 students from 40 schools of different areas in Mumbai, assigning each a one-on-one mentor and provide them free access to superior coaching classes during Std, XI-XII

### Coordinator, National Service Scheme, IIT Bombay

(July, 2010 – Apr, 2011)

- Was involved with more than 300 students by conducting several teaching and vocational training programs; through self development courses and creating awareness through cultural activities
- Worked on the need to apply the education obtained in finding practical solutions to individuals and community problems

### Mentor, Theosophical Model Inter School, Gaya

(24<sup>th</sup> Nov, 2010 – 4<sup>th</sup> Jan, 2011)

- Actively mentored 321 students of matriculate and intermediate classes at a government school in my hometown
- Delivered lectures on physics, chemistry and mathematics and presented a seminar to give emphasis on “**Need for Higher Studies**” and “**How to face the Competitive Examinations**” especially for rural background students

## EXTRA CURRICULAR ACTIVITIES

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- **National Cadet Corps:** Completed C level Certificate course of NCC at IIT Bombay. Was leading 140 cadets in the Adventure Camp (ATC) and Combined Annual Training Camp (CATC)
- **Nav Prayas:** Active member of “Nav Prayas”, an organization at my hometown that brings awareness about education among people
- **Others:**
  - ✓ Participated in “Salsa” and “Hip Hop” dance workshops held at IIT Bombay
  - ✓ Volunteered for prod work in “Performing Arts Festival” for Hostel-3 in 2010
  - ✓ Actively participated in intra and inter hostel sport activities.

## HOBBIES

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Teaching, Dancing, Listening to music, Script Writing, Swimming, Cooking