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**Saurabh Gupta 09002034**

**Chemical Engineering UG Third Year (B.Tech Degree)**

**Indian Institute of Technology, Bombay Male**

**DOB: 14/08/1991**

**Examination University Institute Year CPI \*/ %**

Graduation IIT Bombay IIT Bombay 2010 9.08

Intermediate/+2 CBSE MSMS Vidyalaya,Jaipur 2009 92.4

Matriculation CBSE MSMS Vidyalaya, Jaipur 2007 91.2

*\*CPI = Cumulative Performance Index (on a scale of 10 after 4 semesters)*

**Scholastic Achievements**

* **Department Rank 4** after the end of 4 semesters
* Secured **AIR 797** in **IIT-Joint Entrance Examination** 2009, among 400,000 candidates all over the nation
* Secured **AIR 89** and State Rank(Rajasthan) of **14** in **AIEEE, 2009** (All India Engineering Entrance Exam), among 10,00,000 students all over the nation
* Secured position amongst the **top 1 %** students in the first level of **Indian National Physics Olympiad** (2009)
* Secured position amongst the **top 1 %** students in the first level of **Indian National Chemistry Olympiad** (2009)

**Internships**

* **Lurgi India Pvt. Ltd.**  *Process Division, New Delhi*  **(May ’11 – July ’11)**
  + Got acquainted with the basics of Process Engineering such as PFDs, P&IDs, line sizing, designing of pumps, control valves, pressure safety valves, vapor-liquid separators and heat exchangers.
  + Designed and optimized **Shell and Tube Heat Exchangers** using **HTRI** for the ongoing polyester plant project which comprises of a continuous 140,000-ton/year polycondensation plant, to be constructed in Pakistan.
  + Got a hands-on experience of process design and simulation using **Aspen Plus and HYSYS**.

**Technical Projects**

* **Simple Distillation of Homogeneous Reactive Mixtures**
  + An ongoing project involving computation of Reactive Residue Curve Maps (RRCMs) to analyze the feasibility of a proposed split for the design of reactive distillation columns in an easy, fast, and qualitative format.
  + These maps show the existence of distillation boundaries, a concept important for the design of single columns.
* **Campus Bay**
  + An ongoing project undertaken to create an **online market** for college students to facilitate buying and selling of second hand items
  + Initially, it will be limited to IIT Bombay. Will expand to other colleges depending on response by the students
* **Training programme and Industrial Visit: Rashtriya Chemicals and Fertilizers (Spring ‘10)**
  + Studied manufacturing of Sulfuric acid
  + Prepared a report comprising of process description and flow sheet; calculation of material balance; equilibrium constant and its dependence on Pressure, Temperature and Concentration; logic behind the design of the converter
* **Computer Programming and Utilization project (C++) (Autumn ‘09)**
  + Coded the interface for registration of a new user for the **Mini National UID Project for IIT Bombay**
  + The aim of the project was to have a unique id for every student in the campus in the form of his/her finger print and to use the same for attendance and other related purposes

**Positions of Responsibility**

* **Web Manager, AZeotropy 2k11 and ChEA (Chemical Engineering Association, IITB) (2010-2011)**
  + Worked as a core group member for the overall conceptualization and execution of Azeotropy ‘11, the

annual Chemical Engineering festival with a budget of over INR 10,00,000 and 1,500 participants from 150

Colleges all across the country.

* Designed the Azeotropy’11 website and oversaw the online publicity campaign
* Developed and executed **Age of Chempires**, a plant simulation based competition and **Cipher**, the online crypt hunt, at Azeotropy 2k11
* Designed the website of **ChEA (Chemical Engineering Association)**
* Designed website and interface of other events like N.R. Kamath Chemical Engineering Quiz 2010 and Online Department Election System.
* **Project Bio-Synth Publicity Manager (2010-2011)**
* Designed website and other publicity material for the above ongoing department project for setting up a biodiesel production plant in IIT Bombay with a budget of INR 5 million and targeted production of 200 L/ batch

**Technical Skills**

* Programming languages: C++, PHP, HTML/CSS,MySQL, Javascript
* Operating Systems : Windows XP/Vista/7, Linux
* Computing Software : **Scilab**, **MATLAB, MS Excel, Aspen Plus, HYSYS**

**Courses Undertaken**

* **Chemical Department:**

Chemical Reaction Engineering, Mass Transfer, Heat Transfer, Process Fluid Mechanics, Transport Phenomena, Thermodynamics, Solid Mechanics, Introduction to Material and Energy Balances, Introduction to Numerical Analysis

* **Mathematics Department:**

Complex Numbers, Linear Algebra, Ordinary Differential Equations and Calculus

* **Other Departments:**

Economics, Computer Programming and Utilization, Data Analysis and Interpretation, Data Structures and Algorithms

**Extra-Curricular Activities and Other Achievements**

* An avid blogger, maintain a technology blog that covers latest tech updates, gadgets and software reviews, website hosting guide etc.
* Keen interest in Web Designing and Development, Programming and Poster designing, Photo editing, Video editing
* Was actively involved in the “**National Service Scheme**” (NSS) , which focuses on the development of rural areas and provides food and clothing to the destitute.
* Awarded Certificate of merit in MINET computer festival 2004-05 for programming (JR.) conducted by the **Mother's International school, New Delhi**
* Secured 2nd position in Adobe Flash presentation organized by Tal Pink City Club, Jaipur in association with **Intel Corporation**.
* Designed a remote controlled car for F1 race competition