

Siddharth Jain Chemical Engineering Indian Institute of Technology, Bombay Specialization: None 100020042 UG Third Year (B.Tech.)

DOB: Oct 3, 1991

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	7.89
Intermediate/+2	CBSE	Standard Public School	2010	91.40
Matriculation	CBSE	Bhavans Prominent School	2008	88.40

ACADEMIC HONOURS

- Qualified the **first phase** (state level) of **NTSE** (National Talent Search Examination) organized by Central govt. and represented state at national level in year 2008
- Secured an extra-ordinary score of **134 out of 162 in chemistry** in IIT JEE-2010, getting into the ranklist of **All India top 10** for the subject
- Ranked 1st (year 2001) and 2nd (year 2002) in the Cadbury Bournvita Quiz Contest organized by Cadbury India at the state level
- Received an **yearlong scholarship** from TIME Institute, Hyderabad for excellent performance in their pre-engineering exams, for the session 2010-11

CONFERENCES

- Invitee to the ShARE World Conference 2011 held at IIM Bangalore in December for presentation of the output of the project "Algae based Biofuels Extraction in India"
- Runner-up, among 22 teams from IITs, IIMs and DSE, of the financial simulation game 'Eurocricis' at ShARE World Seminar 2011 based on Smart Investing, in the critical market of European countries which caused recession, to maximise the portfolio value
- Attended the **Harvard US-India Initiative conference** on Social Entrepreneurship and participated in the design workshop applied in improving the design of the existing cycle-rikshaws in Delhi

INTERNSHIPS

1. Optimization of Composite Laminates

[Dr. Angela Vincenti, May-July 2012]

At Institut Jean le Rond d'Alembert, Universite Pierre et Marie Curie – Paris 6

- Introduced to theoretical aspects of composites, modelling and optimization algorithms
- Worked in the area of analysis and design of composite laminates with elastic and thermo-elastic couplings to minimize weight given coupling effect is maximized
- Calculations were also done in order to **find the angle orientations** for different layers (upto 8)
- **Designed a helicopter blade laminate** using the above two results given the practical loading conditions and made it physically in lab to test it for the properties and simulation results

2. Pioma Chemtech Incorporation, Ujjain

[May-July 2011]

Pioma Chemtech Incorporation is a manufacturer, re-packer and exporter of many allopathic drugs, ayurvedic drugs, industrial chemicals and polymers

Recycle of Copper from waste copper mud by converting into hydrated copper sulphate crystals

- **Designed a protocol** for extracting copper from an industrial waste locally known as copper mud
- Analyzed the composition of copper mud and developed a process of extraction using sulphuric acid
- Performed extensive experiments to optimize the concentration of acid to get **65-70% yield** and approximate **95% purity** of hydrated copper sulphate crystals
- **Proposed mechanisms like selective salt crystallization** (using suitable base) or use of CaO before filtration to reduce the amount of acid in the final crystallized product

3. Channel [V], Mumbai/Goa

[Jan-Feb 2011]

IndiaFest, a Channel [V] initiative supported by Star TV, is an inter-collegiate festival, whose first edition was held in year 2011 in Goa with a budget exceeding INR 30 million

- Part of the team that established a country wide campaign of 500 brand ambassadors for the initiative 'Youth for Change'
- Part of the Events team drafted from the channel's programming & marketing departments and an **international management firm** to execute first ever IndiaFest
- **Publicized and executed** over **30 international** and **national performances** like the Juggling Festival, 'Desi Tadka' and interactive workshops in collaboration with the team

PROJECTS

- 1. BioEthanol Plant: Associative Project Between IITB & American NGO 'TaO' [July'12 to date]
 - Part of the team designing a plant to produce bioethanol from market yard waste
 - Involved literature survey and lab experiments for manufacture & analysis of Bioethanol
 - Future work involves structuring of the complete process protocol and thereby designing an economically feasible pilot scale plant
- **2.** Algae based Biofuels Extraction in India [ShARE Knowledge Network, Aug'11 to Dec'11]
 - Studied literature and case studies on production of biodiesel in India and made a detailed report & presentation on methods of extraction from micro-algae, presented in IIM-B
 - Study involved cultivation of algae in controlled conditions, growing the desired algae in uncontrolled conditions, protecting contamination of undesirable species etc.
- 3. Training at Sulphuric Acid Plant [Course

[Course Project, Prof. Vinjamur Madhu, Feb' 2011]

- Attended the **Training Programme** at RCF (Rastriya Chemicals and Fertilizers Ltd.) and studied the entire process, from **manufacturing to purification** of the acid
- Prepared a detailed project report on manufacturing of sulphuric acid encompassing mass and basic level energy balances
- 4. Basic Banking Structure and Management

[Course Project, Prof. D. B. Phatak, 2010]

- Designed a bank management system on **graphical interface** using C++ and EzWindows
- Coded operations like account management, interest calculation, statement generator etc.
- 5. Tourism Website Development

[Dec' 09-Feb' 10]

- **Developed** a website using **Dreamweaver** suitable for state's tourism department under a school project, within a team of 4 members and a mentor
- **Designed** a '**route finder**' which could automatically find all roads/trains between two places and a '**Plan my Trip**' which could create multiple 'round trip' tour options on selecting the locations

COMPUTER SKILLS

- Programming Languages: C++, Mathematica, Matlab, Scilab
- Application Software: Abaqus, Microsoft Office, HTML, Basic Dreamweaver

POSITIONS OF RESPONSIBILITY

1. Confirmed Member, Energy Network, ShARE IIT Bombay Team

[Sept '11 to date]

ShARE is an international non-profit student organisation that connects students to World Class companies, researchers and organisations to tackle global economic, energy and social issues (<u>www.share-share.org</u>)

- Head of a team of 4 members working on projects like Hydrogen based commercial vehicles etc.
- Promoted Network in institute by arranging quiz event, 'Ask a question' sessions etc. with Avenues'11
- 2. Maintenance Secretary of the Hostel

[July 11 to April 12]

- **Managing** a budget of more than INR 500,000 for the smooth functioning of the hostel's infrastructure accommodating over **475 students**, in a team of 3
- Conceptualized and implemented ID card based issuing of unclaimed and unused cycles for general use, thus introduced cycle pool in the hostel for the first time
- Co-ordinated with SARC for the Project Laundromat to introduce cloth-dryers in hostel
- 3. Co-ordinator of Creatives department in Mood Indigo 2011
 - Lead a team of 7 organizers for better ideas, implementation and event management
 - Handled the poster designing, wall painting, ambience and online publicity of MI

EXTRA CURRICULAR ACTIVITIES

- 1. SPORTS SKILLS:
 - Played cricket up to semifinals in CBSE clusters 2005 at district level for school
 - Qualified for district level swimming for school in the year 2006
 - B-certificate holder in National Cadet Corps at 2 MAH ENGR REGT NCC, IIT Bombay
 - Active member of the Institute skating Club
- 2. CULTURAL SKILLS:
 - Awarded PAF Special mention for commendable work in Production in PAF'12
 - Handled lights (fitting and operations) and acted as Materials In-charge in PAF'12
 - Acted in the second prize winning dram in Freshiezza