

ARPIT JAIN

ROOM 194, HOSTEL 8, IIT BOMBAY, POWAI, MUMBAI - 400076

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EDUCATION

Examination	University	Institute	Year of Passing	CPI/%
Graduation	IIT Bombay	IIT Bombay	2012	7.72/10
Intermediate+2	CBSE	DAV Public School	2008	91.0%
Matriculation	CBSE	A.E.C.S. No. 4	2006	94.0%

SCHOLASTIC ACHIEVEMENTS

National Competitions	<ul style="list-style-type: none">• All India Rank 712 among 3,20,000 examinees of the IIT JEE, 2008.• All India Rank 6 in NSTSE, 2006 conducted by <i>Unified Council</i>, Hyderabad.• Runner up in <i>Inter Zone Hindi Science Quiz Contest</i> organised by <i>AEES</i> all over India.
Major Scholarships	<ul style="list-style-type: none">• National Talent Search (NTS) Scholarship (2006): Awarded to top 750 students in India by <i>NCERT</i>.• 12th rank in STSE (2006), felicitated by Governor of Rajasthan• Rajasthan Talent Search Examination conducted by <i>Saraswati Siksha Sansthan</i>, Jaipur (Raj.): State rank-4 and 5 in 2005 and 2006 respectively.• Entered to the Interview round of KVPY, renowned scholarship at the national level
National Olympiads	<ul style="list-style-type: none">• Awarded silver medal in National Mathematics Olympiad in 2003, 2005, and 2006 conducted by <i>All India Schools Mathematics Teachers Association</i>.• Honourable mention in Junior Science Olympiad, 2005 conducted by <i>HBCSE</i>.• Stood among 1% in National Physics Olympiad, 2008.

INTERNSHIPS

Tata Steel, Jamshedpur

May-July 2011

Solvent Extraction of coal: Optimizing feed composition

- Extensive experimentation was carried out with proper planning and *Design of Experiments* as well as data analysis was done using Statistica software
- Optimized co-solvent to solvent ratio to obtain maximum yield and minimum ash content
- Brought down the **coal to total solvent ratio from 1:10 to 1:6** thereby saving the recovery costs of solvent and making the process **economically cheaper**
- Initiated work on old coal which led to decrease in ash by 4% thus **enhancing the profits** considerably
- Proposed separate extraction of finer particles thus further reducing the ash content
- Recommended experiments at lower operating temperature leading to **huge energy savings**

Institute of Oil and Gas Petroleum Technology (IOGPT), ONGC, Mumbai

May-June 2010

Development of Scale Inhibitor for the treatment of calcium carbonate scale

- Studied about various parameters responsible for calcium carbonate scale
- Researched on various polymers & phosphonates and experimented to suggest the scale inhibitor with **95% efficiency** thus saving outsourcing costs for cleaning the oil pipe lines in sea water
- Optimized the dosage and the composition for the maximum efficiency

KEY ACADEMIC PROJECTS

Biodiesel Plant-Project BioSynth

May 2009 to April 2011

IIT Project Biosynth is a student's initiative of setting up a Biodiesel production facility to generate Biodiesel from waste oil on IITB campus (<http://www.biosynthiitb.com/>)

- Involved in extensive laboratory experiments, equipment design, process flow, piping and instrumentation and in reviewing the inspection documents for plant parts
- Diligently looked after safety aspects participating in **HAZOP study** and interacting with experts
- Participated in the **installation** and **commissioning** process of our plant as well as the plant at Tara village
- Supervised projects like conversion of batch plant to continuous and life cycle assessment
- Received the award for **innovation** and **research** in the field of **Green Chemistry** and Engineering in the students' category at **IGCW 2009** as part of the BioSynth team

India Energy Forecasting

- Developed a model equation for energy demand in India based on the past GDP and population trends
- Analysed agricultural, service and industrial sector in detail

POSITIONS OF RESPONSIBILITY

Manager, Design and Production, Team BioSynth, IIT Bombay

April 2010 to date

- **Led** the 10 member Design and Production team, one of the three departments of BioSynth
- Successfully **coordinated** and **troubleshooted** activities on various fronts such as site setup & fabrication
- **Managed** the installation, and commissioning process and also **undertook decisions** on piping
- Lectured the team on PFD, AutoCAD etc. and interviewed the new team members

Coordinator-Hospitality and Assistance-Mood Indigo (Annual Cultural Fest of IITB)

December 2009

- **Managed** the database of participants and **solved** the issues of accommodation

Vice Captain, Tilak House Atomic Energy Central School No. 4

July 2005 to March 2006

- Served as a **link** between the student body and the faculty
- Responsible for the **conceptualization** and **smooth execution** of extra-curricular and sports Events
- **Initiated** a new 'Wall Magazine' competition thereby attracting huge student participation
- Led my House to **win** several major trophies by instilling and maintaining high enthusiasm all year round