



Nitin Mehra

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Fourth Year Undergraduate

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Dual Degree (BTech + MTech) in Chemical Engineering

Room 160 , Hostel-2

Indian Institute of Technology (IIT) Bombay , Mumbai , INDIA

IIT Bombay , Powai – 400076

Examination	Board/University	Institute	Year	Percentage
Fifth Year	IIT Bombay	IIT Bombay	2013	CPI : 5.7 (8 th Sem SPI : 7)
Intermediate +2	CBSE (AISSE)	Happy Days School Shivpuri (M.P)	2008	76.6%
Matriculation	CBSE (AISSE)	Vandana Convent School Guna (M.P)	2006	91.4%

Scholastic Achievements

- Awarded 1st Level clearance in **National Talent Search Examination (NTSE)** conducted by National Council of Education Research and Training (NCERT), New Delhi , INDIA [2006]
- Consecutive **3 times winner** in **MBD Search Talent Exam** , Madhya Pradesh with Merit in District [2004-2006]
- Awarded **Ideal Student Award** in School [2006]
- Selected for **National Science Children Congress** Project exhibition at District Level for Vijaypur , MP
- Won Elocution and Debate Competitions in School.

Relevant courses completed from other departments

- Industrial Engineering and Operation Research
- Transportation Engineering
- Complex Analysis
- Data Analysis and Interpretation
- Fundamentals of Micro and Macroeconomics

Computer Skills

- **Programming languages:** Basic C++
- **Operating systems:** MS Windows 7, XP
- **Software Packages:-** **Aspen** (Chemical Software, Course Undertaken) , **CFD – Fluent and Ansys** (Course Undertaken)
Polymath Professional (To apply effective numerical analysis techniques)

Internships / Research Projects

- **Synthesize and characterization of PDMS micro-particles** at Chemical Department, IIT Bombay
Under Prof. Mahesh Tirumkudulu, IIT Bombay [March 2013 – Current]
 - Currently working on unprecedented synthesize of PDMS micro-particles through sonication
 - Developing techniques to make poly-disperse suspensions to mono-disperse suspensions.
- **Assessment of Technologies on Biodegradable Plastics** at Soft-tech Solutions, Mumbai
[January 2013 – March 2013]
 - Carried out literature surveys in biodegradable plastics.
 - Studied and documented different technologies on Poly-lactic acid production.
- **Study on Production of Urea** at National Fertilizers Limited, Vijaypur
Under P Sankale, Senior Production Manager [Winter 2012]
 - Studied different production technologies on Urea
 - Worked on snamprogetti ammonia stripping process for the manufacture of urea for Unit-1 of plant
- **Soil Biotechnology (SBT) for STPs – A recent US Patent : An Environment Friendly Technology**
Under Dr.Biplab Pattanaik, Ph.D [September 2012 – November 2012]
 - Studying the designing and modeling of reactor tank for SBTs and analyzing it's nature at saturation.
 - Exploring the potential available in soil filters to pave a new dimension in green technology.
- **Analysis of Different technologies for Sewage Treatment Plants (STPs)**, Life Link Private Limited, Mumbai
Under Dr.Biplab Pattanaik, Ph.D [May 2011 – July 2011]
 - Made work visits to study STPs located at places like ITC Grand Central & ITC Maratha Hostels, Mumbai.
 - Suggested techniques to improve the processing of waste water to Chief Engineers.

Academic Projects/Reports completed

- **Production of Bio-Diesel from the oil feed stock.**
Under Prof Mukta Tripathy, Department of Chemical Engineering, IIT Bombay [October 2012]
 - Performed basic mass and energy balance calculations for a large scale batch process
 - Analyzed the economics of the process & learned various fuel characterization techniques.
- **Design of Debutanizer : A Multicomponent Distillation Tower**
Under Prof. Ranjan K Malik, Department of Chemical Engineering, IIT Bombay [October 2012]
 - Studied design, specifications, sizing and the costing of the distillation column for Debutanizer
- **Optimum Temperature Design for Sulfur Dioxide Reactor for Sulphuric Acid Plant**
Under Prof. Ranjan K Malik, Department of Chemical Engineering, IIT Bombay [November 2012]
 - Achieved optimum temperature for the oxidation of SO₂ to give maximum conversion
 - Designed network of Packed bed reactors and coolers used in achieving the above conversion
- **Finger -Print Recognition:** [2009]
Under Prof. D.B.Phatak ,Department of Computer Science and Engineering, IIT Bombay
 - Worked with 5 members and prepare a program using C++ for duplicate checking of finger print as a part of CS101 Project.

Work Visits

Rashtriya Chemical Fertilizer Plant (RCF) , Chembur , Mumbai:

[2009]

Under Prof. Sanjay Mahajani , Department of Chemical Engineering, IIT Bombay

- Studied and Analyzed the manufacturing of Sulphuric Acid by Double Absorption Process

Extracurricular Activities

- **Over-all Coordinator** of *INSPIRO* – Alumni cum mentorship club of Vandana Convent School (CBSE) in Guna (MP)
- Currently serving as an **Editor** in **Institute Media Body 'Aawaaz' , IIT Bombay** which publishes institute newspaper and campus news.
- Earlier served as a **Journalist** and **Publicity Head** of Aawaaz , IIT Bombay .
- Worked as an **Organizer** in Infrastructure Department of **TechFest , IIT Bombay** ,2010 . TechFest is Asia's largest Science and Technology festival.
- Served as a member of 'STUDe CLUB' IIT Bombay which is dedicated for the Overall development of Student.
- Selected for National Sports Organization (NSO) Hockey , IIT Bombay .

Social Activities

- Organizing Youth Development Seminars in Kota and other places with students of other IITs ,NITs and engineering colleges .
- Conducting Seminars like 'Stress Management' and 'Discover Your Self' for Students.