Prateek Kushwaha   100020014

Chemical Engineering   UG Third Year (B.Tech.)

Indian Institute of Technology, Bombay   Male

Specialization: Chemical Engineering   DOB: 30/09/1992

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	7.68
Intermediate/+2	Maharashtra state board	Atomic Energy Junior College	2009	92.66
Matriculation	CBSE	Atomic Energy Central School	2007	93.00

*Pursuing an additional **Minor degree** in the **Electrical Engineering** Department.*

Academic achievements

- Ranked amongst top 1 percent of about 4.74 Lakh candidates appeared in IIT-JEE 2010.
- Ranked amongst top 0.6 percent of about 10 Lakh candidates who appeared in AIEEE-2010.
- Awarded certificate of merit for being amongst top 0.1% of successful candidates of All India Secondary School Examination in English. [2006-07]
- Qualified Dr. Homi Bhabha Bal Vaidynanik Exam (Science Talent Search Examination) in 2002, 2005.

Internship- Jacobs Engineering [Summer 2012]

Worked in the engineering consulting firm on a project for a client for setting up a 60ktpa capacity Nylon-12 plant in Singapore

- Completed a month long internship in Mumbai office, Process engineering department.
- Studied the PFDs and P&IDs of various units and processes occurring in the plant and suggested modifications.
- Performed Hydraulic calculations for the sizing of various pipes in an area of the plant.
- Prepared datasheets of different vessels, columns, filters from different areas of the plant listing the technical specifications.

Projects

Project Biosynth [Summer 2011-Present]

Project Biosynth is a first ever student's initiative of installing a self-sustained biodiesel plant at an institute level in India.

- Presently, part of an 8 member technical core team, leading a team of 19 undergraduate students.
- Conducted numerous lab runs to determine the efficiency of various processes of biodiesel production using different feed stocks.
- Currently working on an **ion exchange resin** to neutralize the sulfuric acid present in the methanol layer.
- Gave presentations about the project at events, exhibitions like TECHFEST, IGCW and in the institute.

Rashtriya Chemical Fertilizers-Industrial Visit [Course Project]

(Guide-Prof. Sanjay Mahajani)

- Undertook a one-day visit to learn about the Double Conversion Double Absorption contact process for manufacturing sulfuric acid.
- Prepared a project report which included the mass balances on different units of the plant and the plant as a whole.

Pocket Tanks [Course Project]

(Guide- Prof. D. B. Phatak)

- Made a multiplayer Tank Game written primarily in C++, integrated with a Graphics Library, on Linux Systems using EzWindows as the graphics API to design the Graphical User Interface and the algorithm to fire the weapons of the tanks.

Hexapod-Electronics Club Project   [Summer 2011]

(Electronics Club, IIT Bombay)

- Made a Hexapod, a six legged robot that can move in any direction and perform various tasks as instructed, as a part of the Electronics Club Summer Project 2011 that was controlled using a computer.
- The robot was built as an All-Terrain Robot and programmed using two onboard microcontrollers.
- One of the two projects to be showcased at the STAB orientation 2011 from a total of 25.

Internship Coordinator-Institute Placement Team   [July, 2012-Present]

Placement office helps second and third year students in securing internships/training programs in industry as well as research institutions both in India and abroad

- Involved in scheduling interview slots for companies and overseeing logistics for all internship activities.
- Building and sustaining relationships with companies, universities, and social organizations that recruit students for internships from IIT Bombay.
- Approaching new organizations and aiding them in managing their selection procedure.

Programming Skills

Languages/Softwares: **C/C++, Qt, Scilab, Microsoft Visio, HTML, EAGLE, VB**

Organizational Work

- **Technical councilor**, Hostel 9, IIT Bombay   [July, 2012-Present]
    - Leading the efforts for ensuring the participation of students in the technical activities in the Hostel to secure points in Technical GCs conducted by STAB with the help of two secretaries.
    - Organizing workshops, intra-Hostel events to improve the Technical culture in the Hostel.
- **Technical secretary**, Hostel 9, IIT Bombay   [2011-2012]
    - Coordinated various Technical activities for the Hostel and participation in Technical Activities involving Hostel to secure second position in Technical General Championship.
- Coordinator at Horizons, **Mood Indigo**-2011.
- Coordinator at Competitions, **Azeotropy-2k12**, the annual festival of Chemical Engineering Department.

Awards/Recognition

- Awarded Hostel **Technical Special Mention** and **Technical Color** for outstanding contribution to Technical Activities.   [2010-2011][2011-12]
- Awarded the **Best Secretary** Award and **PAF Special Mention** for organizational work done for the Hostel.   [2011-2012]

Extra-Curricular Activities

- Actively involved in **technical activities**. Participated in various technical events throughout the stay.
- Participated in Nexus and iNexus events in TECHFEST 2012- designed the circuit board in EAGLE for the autonomous robot.
- Part of my hostel team for Performing arts festival (PAF) 2012. Stood third in the competition.
- Playing Badminton, football, cricket, and Kho-Kho.