NIKHIL GUPTA

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Second Year UnderGraduate
Male/Indian

Four-Yr B-Tech Program
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Mechanical Engineering
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ACADEMIC DETAILS

EXAMINATION	UNIVERSITY	INSTITUTE	YEAR	CPI/ %
Graduation	IIT BOMBAY	IIT BOMBAY	2012	9.42
Intermediate/+2	CBSE,NEW DELHI	K.V.NO.1,BHOPAL	2011	93.4
Matriculation	CBSE ,NEW DELHI	K.V.NO.1,BHOPAL	2009	92.4

SCHOLASTIC ACHIEVEMENTS

- Currently, **Department Rank 1**, among the batch of 140 students, including both B-Tech and Dual degree students.
- Secured **ALL INDIA RANK 216** in **IIT-JEE 2011** among half million students.
- Secured **ALL INDIA RANK 90** in **AIEEE -2011** among 1 million students.
- Secured **ALL INDIA RANK 109** in **Indian Space Admission Test- 2011** among half million students.
- Recipient of **KVPY Scholarship** during year 2010-2011 and was among Top 200 students, selected as young scientists of India among 40000 students.
- Selected for **National Chemistry Olympiad** & achieved Certificate of Merit for being in the top 1 percent students of India in NSEC (National Standard Examination in Chemistry)-2010.
- Selected for **National Astronomy Olympiad** & achieved Certificate of Merit for being in the top 1 percent students of India in NSEA (National Standard Examination in Astronomy)-2010.
- Achieved **Certificate of Merit** for being in the top 1 percent students of India in NSEP (**National Standard Examination in Physics**)-2010.
- Secured **ALL INDIA RANK 23** in **National Junior Mathematics Olympiad -**2009.
- **CBSE Merit Certificate** in chemistry for being in top 0.1 percent students of India in the examination of AISSCE-2011.

PROJECTS UNDERTAKEN

- ➢ **Efficiency analysis of straight bladed Darrieus Water Turbines using the Cascade Theory.**   **[July'12 to Nov'12]**
  [Year 2, Semester 1]   Project under Prof S.V.Prabhu, Department of Mechanical Engineering, IIT Bombay.
- Streamlined a theory to determine the **power coefficient of straight-bladed turbines** using the values of Drag coefficient and Lift coefficient of an airfoil.
- Validated the developed theory by carrying out numerous experiments with NACA airfoils with different specifications.

- ➢ **POV Led Image Projector**   **[May'12-July'12]**
  Project under Electronics Club, IIT BOMBAY
- Built a **persistence of vision project** having ability to display **monocolour bitmaps up to 64 * 96 pixels high resolution** in the form of POV Led Cylindrical Surface.
- Devised on the principle of rotation of led's, switching the Led's at very precise timings, synchronized with the location of the LED row using the C++   programming.

SUMMER INTERNSHIPS

- ➢ **BHARAT HEAVY ELECTRICALS LIMITED (B.H.E.L)**   **[May'12 to June'12]**
- Gained experience in the field of **designing of blades of steam turbines** and **heat exchange mechanism of transformers** and exposure towards heavy engineering.

- Suggested measures for maintaining the **appropriate amount of moisture content in the transformer oil for its stability at high temperatures** that were incorporated in the manufacturing process.
- Conducted qualitative analysis of **aerodynamic efficiency of blades**.

➢ **IIT BOMBAY Racing Team** [May'12 to July'12]
- Member of the **FS Electric Car Team 2012** participating in **Formula SAE event** held in **Silverstone circuit of United kingdom**.(Formula SAE event is international racing competition where racing teams from all over the world participates.)
- Simulated the model of the **suspension system of car** through **MATLAB and basic designing** of various parts of car through **SOLIDWORKS.**

RELEVANT COURSES UNDERTAKEN

- **Minor: Management** in Shailesh.J.Mehta school of Management.
- **Core:** Solid Mechanics, Strength of Materials, Fluid Mechanics, Engineering Metallurgy, Thermodynamics, Manufacturing Process 1, Experimental Engineering Lab, Electrical Engineering (Theory and Lab), Electronics (Theory and Lab).
- **Non-Core:** Linear Algebra, Ordinary Differential Equations, Numerical Analysis, Physical, Organic and Inorganic Chemistry, Chemistry Lab, Newtonian Mechanics, Special Theory of Relativity, Electrodynamics, Computer Programming and Utilization (C++), Data Analysis and Interpretation, Engineering Graphics and Drawing.
- **Computer Proficiency Skills:** C, C++, HTML, MATLAB, SOLIDWORKS, AUTOCAD, Sequel.

POSITION OF RESPONSIBLITY

➢ **Coordinator, Entrepreneurship Cell 2013.** [April'12 to present]
- Conceptualized the foundation of **Entrepreneurship and Business club** in **IIT Bombay**, visualizing the aim of creating awareness of entrepreneurship among the IIT students.
- Coordinating the work of **Eureka-2012**, the biggest **B-Plan competition** of India, organized by IIT Bombay, inspecting the work of refinement of entries to judging panel.
- Administering the work of organizing the **lecture series** of world renowned noble laureates and entrepreneurs in the interactive session of **E-Summit -2013**.

➢ **Coordinator, Mood-Indigo 2012** [April '12 to present]
- Supervising the execution of the **Hospitality department** of **IIT Bombay cultural festival**, regarded as **Asia's largest cultural festival**.
- Maintaining the **public relations** and **building network with colleges** for ensuring the higher participation from all over the world.
- Executing the work of **competitions** and **accommodation** of the participants in the institute as well as in various hotels of Mumbai.
- Sponsored the **glowing wrist bands for the whole Mood-I festival**, about 10,000 bands.

➢ **Mentor, Excel Mentors** [July '12 to present]
- Mentoring the aspirants of **IIT-JEE and AIEEE** all over the India, through this organization, providing motivation and doubt clearance at personal level.

EXTRA-CURRICULAR ACTIVITIES

➢ **Coordinator, Techfest 2013** [April'12 to present]
- Supervising **the Techfest Green Campus challenge** in the **Competitions department of IIT Bombay technical festival**, executing the task of judgment of teams from all over the India for ensuring the better competition in the main event.
➢ **Organizer,** Horizons Department of the **Mood-Indigo-2011, IIT Bombay Cultural festival.**
➢ **Organizer**, Exhibitions Department of **Techfest-2012, IIT Bombay Technical festival.**
➢ Completed the **two semester course** in **National Sports Organization of IIT Bombay**.