



Nikhil Mittal  
Civil Engineering  
Indian Institute of Technology, Bombay  
Specialization: Structural Engineering  
Minor: Energy Science

UG Fourth Year (Dual Degree)  
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Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011*	8.78
Intermediate/+ 2	H.S.C. (Maharashtra Board)	Atomic Energy Junior College, Tarapur	2008	91.00
Matriculation	C.B.S.E	Atomic Energy Central School, Tarapur	2006	91.40

## SCHOLASTIC ACHIEVEMENTS

- Awarded Institute **Academic Excellence Prize** for being **best performing student** in **Civil Dual Degree batch of 2008** for the academic year **2010-11**.
- Secured an **All India Rank of 2046** in Joint Entrance Examination (JEE) 2008 in more than 350,000 students.
- Secured an **All India Rank of 2669** in **All India Engineering Entrance Examination (AIEEE)** among more than 800,000 students in 2008.
- Placed in the **top 1%** of the candidates in Maharashtra in **National Standard Examination in Physics** in 2007.
- Received **Certificate of Merit** in **Maharashtra Talent Search Examination, 2005**
- Secured **State Rank 21** and **All India Rank 217** in **Nationwide Interactive Science Olympiad**.
- Among **top 20% in India** in Mathematics exam conducted by **The University of New South Wales, Australia** in International Assessment for Indian Schools, 2004.
- Passed **47<sup>th</sup> All India Annual UN Information Test** in 2004.

## INTERNSHIPS

University of New South Wales, Sydney, Australia

*May-July 2011*

- Developed a method and algorithm to determine **Elasticity Modulus of the soil** given its **Grain Size Distribution** and physical properties of the material of the soil.
- The method **has been adopted in a software** that would ultimately **design** and has ability to **analyze pavements** for all sorts of inputs.

**Reliance Power, Rosa Thermal Power Plant, Rosa, Uttar Pradesh, India**

*May 2010*

- **Studied operation of a coal based Thermal Power Plant**, with insight into working of each auxiliary and sub-system of the plant.
- Observed and **studied construction activities** of structures in the plant, with **special emphasis on construction of Ash Dyke and Railway Siding** (25 km rail, wagon tippler & track hopper system).

**Reliance Power, Head-Office, DAKC, Mumbai, India**

*June 2010*

- **Studied town planning, master plan and architectural aspects of housing colonies** for the employees at thermal Power Plant at Sasan (Madhya Pradesh) and Krishnapatnam (Andhra Pradesh), India.
- **Proposed a new road level** for the Krishnapatnam and Sasan colonies, **minimizing the excavation and filling** required from the ground level, amounting to **savings of over Rs 70,00,000**.
- **Corrected structural drawings** of various **town buildings** like Guest House, School etc.
- Studied **design of a gravity based sewage system** for the Krishnapatnam and Sasan Townships.
- **Calculated a new rail embankment profile** for railway siding for Butibouri Thermal Power Plant, **minimizing the soil quantity** used for embankment, thus **resulting in huge savings**.
- **Techno-commercial comparison of electrical fittings** – luminaries, ceiling fans and exhaust fans and negotiation with the vendors.

## COMPETITIONS AND PROJECTS

### **Formula SAE (Society of Automotive Engineers) Car**

- Team member in developing **AGNI, Formula Student Racing Car** at IIT Bombay in 2009 which participated in **FSAE Silverstone, U.K.**
- The car won **2<sup>nd</sup> position** in **Cost Report event**, stood **9<sup>th</sup>** in **Business Case Presentation** and **58<sup>th</sup> overall** out of top 120 university teams worldwide.

### **Energy Audit**

- **Energy Audit on existing street lighting** systems in **IIT Bombay**.
- Analyzed and **suggested various methods of decreasing energy consumption** for street lights in the campus.

### **Others**

- Designed an **electronic circuit simulator** using **C++** in 2008.
- **Project on Energy Conservation (2007):** Made a **light sensitive switch** which can be easily mounted on street lights so that they turn on only when it becomes dark.

## POSITIONS OF RESPONSIBILITY

- **Co-ordinator in Marketing and Media** in **Techfest 2010**, IIT Bombay's science and technology festival, the **largest in Asia**. **Contacted, negotiated** with companies for association with Techfest.
- **Organizer in Marketing and Lecture Series** for **Techfest 2009**.
- **Organizer in Mood Indigo 2008**, IIT Bombay's cultural festival, the **largest in Asia**.

## EXTRA-CURRICULAR ACTIVITIES

- **Sports**
  - Selected for **Badminton** training and conditioning **camp** for **Inter IIT 2010**. Among **top 8 players** of IIT Bombay in **first year** in **Badminton, Table Tennis and Lawn Tennis**.
  - **Part of Hostel Badminton, Table Tennis, Lawn Tennis and squash teams** to represent hostel in **inter hostel General Championships**, held every year.
  - Received **Hostel Special Mention** for **excellence in performance in Sports** for the **year 2009-2010**.
  - Participated and **won many school and inter-school Badminton and Table Tennis tournaments**.
- **Others**
  - Stood **first in school debates**, was a member of the **school debating team**.
  - Won many prizes in school in **Hindi and English elocutions and quiz competitions**.
  - Interest in Photography.

## SOFTWARE PROFICIENCY

- Microsoft Office
- Fortran
- AutoCad
- Scilab
- SAP2000, ETABS (structural design and analysis softwares)