



**Kaushal Kumar**  
**Civil Engineering**  
**Indian Institute of Technology, Bombay**

**08004048**  
**B.Tech.**  
**Male**  
**DOB: 20/04/1990**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	6.99
Intermediate/+2	CBSE	DAV Barkakana, Ranchi	2007	77.40
Matriculation	CBSE	SSVM, Sarubera, Ranchi	2005	85.20

## INDUSTRIAL EXPERIENCE

### Optimal Consultancy Services Pvt. Ltd., Mumbai

[May'11-July'11]

*Structural design and analysis of high rise building*

- Designed a 23 storey RC framed building, DIAL Hospitality District in Delhi using **ETABS** software
- Analyzed the design and detailing of reinforced concrete floor (flat slab) using **SAFE-12** software
- Considerably reduced human effort in design calculations by developing Excel formulae sheets for design of various types of beams, columns, slabs, footings, Earth retaining structures
- Awarded with **Pre Placement offer** for significant contribution to the company

### Synergy Property Development Pvt. Ltd., Gurgaon

[June'10-July'10]

*On Site experience and Construction management*

- Conducted lab and site tests on concrete and its components after thorough research of the principles of **Concrete Mix Design** based on IS: 10262-1999
- Assisted and monitored **Quality Control, Execution and Management** departments
- Gained hands-on experience in Basic Design Reports and preparing Bar Bending Schedules(BBS)
- Estimated the quantity and cost of steel and concrete used for the construction of a 28 floor building and also documented structural safety reports for these projects (using NBC-2005)

### Coal India (Central Coalfields Ltd.), Ranchi

[Dec'09]

*Improvement in water supply and sewage treatment of new township area in Ranchi*

- Reconstructed the map of water distribution pipeline system using AutoCAD
- Produced a detailed report suggesting improvements in the waste-water management system

## KEY ACADEMIC PROJECTS

### Vibrational Analysis of Railway Steel Bridges | Undergraduate thesis

[July'11-Present]

- Performing static and dynamic analysis of railway steel bridges for fatigue using **ANSYS** software
- Formulating a spectrum to calculate the Coefficient of Dynamic Augment (CDA) to replace the conventionally used empirical formulae
- Aim to predict accurate lifetime of existing bridges due to increased dynamic load on it over time

### Seismic Design and Analysis for Commercial Building | Advance Design of Structure

[July'11-Present]

- Drafted the plan of the building with appropriate locations of beam and columns using AutoCAD
- Critically analyzed the model in **ETABS** for 5 different load cases including earthquake forces

### Stopping Sight Distances at Red Zones in Highway | Transport Engineering

[Jan'11-April'11]

- Developed a **C++ program** for the computation of stopping sight distance at the combination of horizontal and vertical curves (red zone)
- Established a co-relation between design speed and the curve characteristics to obtain the optimum safety factor in accordance with AASTHO safety standard codes

---

## HONORS DEGREE AND SOFTWARE SKILLS

---

- Pursuing **Honors Degree** which includes Masters level courses like *Advance Design of Structures, Structural Dynamics, FEM*
- Engineering Software : **ETABS, AutoCAD, Staad Pro 07, ANSYS, SAP 2000 and SAFE-12**

---

## POSITIONS OF RESPONSIBILITY

---

**Department Placement Coordinator, Institute Placement Team** [May'11- Present]

- Part of a 65 member team to coordinate placements of 1500 students in over 400 companies
- Playing a key role in formulating policies, coordination and scheduling; acting as an interface between students, authorities and companies
- Conducted mock interviews, group discussion sessions and implemented initiatives like puzzle of the day and preparatory quizzes aimed at better placement preparation of the batch

**Student Coordinator, National Services Scheme** [May'10- April'11]

- Led a team of 16 work associates and 200 volunteers for NSS activities in campus
- Conceptualized and implemented the "**Mentorship Program**" for the students of **Campus School** and **Kendriya Vidyalaya** at IIT Bombay
- Organized **field trips** to villages like Kapshi, Vihigaon, Surgana, etc for students to demonstrate problems faced by people living in villages
- Convinced authorities to raise NSS funds for **village trips, Salvation campaigns**, etc. and to hire new instructor for **Personality Development Program**

**Member, Institute Academic Council** [Aug'10- Nov'10]

- Surveyed faculty member's response on the academic and motivational issues faced by students
- Solved various academic issues like course slot clash, pre-requisite structure, online feedback system, survey current course credit and introduced a new Course-Code Numbering System

---

## EXTRA CURRICULAR ACTIVITIES AND AWARDS

---

### TECHNICAL

- Aakaar, Department Technical Festival. **Won** three times in a row
  - Secured **1<sup>st</sup> position** in "Connexure" for the best design of 2D truss model used in bridges [2011]
  - Secured **1<sup>st</sup> position** in "Civil Instinct"; design of Foundation Slab model [2010]
  - Won **1<sup>st</sup> prize** in "Quake" for designing the most stable novel earthquake resistant structure [2009]
- Won **4<sup>th</sup> position** (among 400 and more teams) in Techfest's "Solar Splash" to design solar boat [2010]

### SPORTS

- Member of the IIT Bombay Athletics team at **46<sup>th</sup> Inter-IIT sports meet** [2010]
- Awarded Hostel **Sports Color** for playing an important role in football, cross country, Tug of war, athletics, weightlifting and water polo team in General Championships [2011]
- **Captain**, Inter-Hostel Football team; secured **3<sup>rd</sup> position** in General Championship [2010]
- Won **1<sup>st</sup> Position** in Inter-Hostel Football General Championship [2009]
- Won **3<sup>rd</sup> position** in 200 meter Track event and **4<sup>th</sup> position** in Javelin throw event Athletics GC [2011]

### SOCIAL

- "**Certificate of Appreciation**" for consecutive **3 year** by UNNATI (NGO) [2009, 2010, 2011]
  - Took an active interest in the indigenous development policies adopted by 'Kapshi' village in Satara District - a prime example of using innovation to alleviate the effects of drought
  - Volunteered in **Old cloths collection** drive in campus for donation to poor and needy people of slums
- Currently studying and exploring Urban Sociology of contemporary India [July'11-Nov'11]