Vishal Kansal | **100100091**
Mechanical Engineering | **UG Third Year (B.Tech.)**
Indian Institute of Technology, Bombay | **Male**
Specialization: B.Tech. | **DOB: 05-01-1993**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	9.60
Intermediate/+2	CBSE	Guru Harkrishan Public School	2010	94.00
Matriculation	CBSE	Guru Harkrishan Public School	2008	93.80

EDUCATION & SCHOLASTIC ACHIEVEMENTS

- Pursuing a Minor in Computer Science Engineering
- Ranked **1st** in the Department for the 3rd and 4th semester out of about 144 students with Semester Performance Index (SPI) of **9.87 & 9.91** respectively
- Awarded **AP** grade in 'Strength of Materials' for exceptional performance *[2012]*
- Secured an **AA** grade in all the Department **Core Courses** till date
- Awarded **Institute Academic Award** for Academic Excellence for the year 2011-12
- Secured All India Rank 259 amongst 0.5 million students in IIT-JEE *[2010]*
- Secured All India Rank 142 amongst 1 million students in AIEEE *[2010]*
- Secured All India Rank 86 in **NSTSE** (National Level Science Talent Search Examination)
- Awarded CBSE Merit Scholarship for excellent performance in AIEEE *[2011-2014]*

INTERNSHIPS & PROJECTS

TATA MOTORS Ltd. (Passenger Car Business Unit), Pune *[May – July'12]*

Elimination of 'Window Winder mechanism' failure due to Glass Pop Out and Glass Hard issues

- Aimed to understand all the design aspects and provide useful suggestions as to what changes can be made to reduce the Glass Pop Out issue in the car's front door
- Studied parameters like 'Center of Gravity of Glass' and 'Power Regulator Design' and identified the possible factors contributing to these issues
- **Benchmarking** with Competitor Cars and comparing all the designs, and thus identifying the best among them

Three- Dimensional Finite Element Modelling for Laser Cladding

Autumn Semester, Fall 2012 | Prof. Ramesh Kumar Singh | Mechanical Engineering Department

- Aim of the project is to analyze the Residual stresses and Temperature profile in **Laser Cladding** process
- Developed a Thermo-Mechanical Finite Element Model with Gaussian moving heat source using **ABAQUS**
- Currently Modelling the effects of Phase Transformation on the Residual Stresses developed at the Clad-Substrate interface

Experimental Characterization of Delamination in Composite Laminates

Autumn Semester, Fall 2012 | Prof. Ramesh Kumar Singh | Mechanical Engineering Department

- Involves preparation of composite laminates, performing of the Double Cantilever Beam Test to failure on these composites and analysis of the results obtained.

TECHNICAL ACTIVITIES

Computer Science Course Project *[2011]*

Prof. Rushikesh Joshi | Computer Science Department

- Implemented a Graphical User Interface using Fast Light Toolkit (FLTK) library in **C++**.
- Implemented animated motion of objects in the interface.

Smart Alarm *[2011]*

- Developed an Android Application for mobiles using Android SDK in JAVA on Eclipse platform.

Line Follower *[2011]*

- Built an autonomous bot which could trace a white path on black background and complete it in minimum time.

POSITIONS OF RESPONSIBILITY

Internship Co-ordinator *[July'12 – Ongoing]*

Placement Cell, IIT Bombay

- Working with a 25 member team responsible for Industrial Relations and getting Internships for all second and third year students (around 1600 students).
- Ensuring, through rigorous pursuit, the campus visit of various core companies of my Department.
- Assisting in conduction of talks, interviews and various other selection processes of the students for internships.

Co-ordinator *[2011 – 2012]*

Techfest, IIT Bombay

- Was responsible for bringing famous scientists and speakers from all across the world to the institute to give talks to the students and executing the event.

EXTRA-CURRICULAR ACTIVITIES

- Currently Pursuing **German** Language Course at the Institute. *[2012]*
- Member of **Inter-Hostel Event** winning **Basketball** Team in IIT Bombay. *[2011]*
- Winner of Essay Writing Competition held at the School Level
- Member of NSO Basketball Team of 30 members during first year.
- Actively Participated in Debate Competitions held at the School Level

RELEVANT COURSES

- Solid Mechanics + Lab
- Manufacturing Processes I
- Thermodynamics
- Heat Transfer + Lab
- Kinematics & Dynamics of Machines+Lab
- Industrial Eng. And Operations Research
- Linear Algebra & Differential Equations
- Calculus
- Strength of Materials
- Manufacturing Processes II + Lab
- Fluid Mechanics + Lab
- Applied Thermodynamics
- Data Structures and Algorithms
- Computer Programming in C/C++
- Numerical Analysis
- Data Analysis and Interpretation

OTHERS

- *Softwares*: Matlab, Solid Works, Lab View, Pro-Engineer(Basic)
- *FE packages:* Abaqus, Ansys(Basic)
- *Coding Skills*: C/C++, Java