**Ashish Sharma** **09D10004**
**Mechanical Engineering** **UG Third Year(Dual Degree )**
**Indian Institute of Technology, Bombay** **Male**
**Specialization: Thermal & Fluids Engineering** **DOB: 9.9.1990**

| Examination | University | Institute | Year | CPI / % |
|---|---|---|---|---|
| Graduation | IIT Bombay | IIT Bombay | 2012 | 8.48 |
| Intermediate/+2 | CBSE | J H Ambani school | 2008 | 87.60 |
| Matriculation | CBSE | J H Ambani school | 2006 | 92.80 |

## ACADEMIC ACHIEVEMENTS

- Currently pursuing a major in Mechanical Engineering and a minor in Physics – in the VI semester of the degree course
- Secured an All India Rank (AIR) of 615 in Indian Institute of Technology – Joint Entrance Examination 2009 (IIT-JEE 2009) among over 380,000 candidates (among the top 0.162% candidates)
- Secured an All India Rank (AIR) of 852 and a Gujarat State Rank (SR) of 19 in All India Engineering Entrance Examination 2009 (AIEEE 2009) among over 960,000 candidates (among the top 0.088% candidates)

## RESEARCH INTERESTS

- Energy Science & Engineering
- Mechanics: Modelling, Experimentation, & Computation

## MAJOR PROJECTS

**Baja SAE India 2011** IIT Bombay
Team IITB Racing July '10 – January '11

- Was involved in the fabrication of the vehicle and also worked for the engine and powertrain team on modelling a Continuously Variable Transmission (CVT)
- The objective was to design, build, test, promote and race a prototype of a rugged, single seat, off-road recreational vehicle intended for sale to the non-professional, weekend off-road enthusiast
- Won the Raftaar award among over 70 teams

**Unique Identification (UID) System for IIT Bombay** IIT Bombay
Professor DB Phatak July '09 – November '09

- The objective was to mock-implement, in C++, the UID system being developed by the Unique Identification Authority of India (UIDAI) at the IIT Bombay level
- Led the team responsible for the 'Fingerprint Template Comparison' part in which input fingerprint templates were compared with those in the database

**Characterization of different surfaces via White Light Interferometer** IIT Bombay
Professor Ramesh Singh Sept '11 – Nov '11

- The objective was to characterise the surface topography for different machined surfaces from data obtained using a white light interferometer
- The coordinate data was processed in MATLAB to determine various surface amplitude parameters like Average roughness, Root mean square roughness, Skewness, Kurtosis and Ten point height and images of the surfaces were generated

## RELEVANT SUBJECTS

By the summer of 2012, I would have taken, among others, the following subjects:

- **Mechanical engineering and related subjects:** Thermodynamics, Advanced thermodynamics and combustion, Applied thermodynamics, Cryogenic engineering I, Heat transfer, Fluid mechanics, Fluid dynamics, Engineering mechanics, Solid mechanics, Engineering metallurgy, Strength of materials, Kinematics and dynamics of machines, Industrial engineering and operations research, Engineering design optimisation, Manufacturing processes I & II
- **Mathematics subjects:** Numerical analysis, Calculus**,** Ordinary differential equations, Linear algebra
- **Other subjects:** Computer programming and utilisation, Introduction to electrical and electronics circuits, Data analysis and interpretation**,** Classical mechanics, Introduction to quantum mechanics, Thermal and statistical physics, Light matter interactions, Psychology

## SKILLS

- **Communication languages:** English, Hindi, French
- **Programming languages:** C/C++, JavaScript
- **Technical application softwares:** MathWorks MATLAB, Dassault SolidWorks
- **Other application softwares:** MS Office (Word, Excel, Powerpoint), Oracle, Adobe Creative Suite 4 (Photoshop, Flash, Dreamweaver)
- **Scripting languages:** HTML, CSS, ActionScript

## MAJOR POSITIONS OF RESPONSIBILITY

**Member, UG Academic Council, 2011-12**

- Currently working in the Students' Advisory Body of the Special Academic Task Force (SAB-SATF) of the Undergraduate Academic Council, 2011-12
- Actively involved in the department curriculum redesigning process
- Responsible for coordinating academic and research activities in the department and representing the department in the council

## OTHER COURSES

**French Language – Levels A1 & A2**

- Completed a course on French language – Level A1 and currently pursuing a course on French language – Level A2 organised by IIT Bombay in collaboration with the French Ministry of Foreign Affairs
- Awarded a Diplôme d'Études en Langue Française (DELF) A1 by the French Ministry of Education

**Advanced Programming in C++**

- Completed the certificate course on Advanced Programming in C++ organised by Continuing Education and Quality Improvement Programmes (CE&QIP), IIT Bombay

**National Cadet Corps (NCC)**

- Completed the A & B certificate course organised by 2 Maharashtra Engineering Regiment (2 Mah Engr Regt) NCC, Bombay
- Participated in the annual training camp for senior and junior division cadets which, among other things, included adventure activities and Self Loading Rifle (SLR) training

**WIRES – Robotics**

- Completed the certificate course on robotics offered by ThinkLABS & SINE, IIT Bombay