Saurav Aryan   09010057
Mechanical Engineering   UG Third Year (B.Tech.)
Indian Institute of Technology, Bombay   Male
                                                    DOB: 30th Dec, 1992

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2011	9.24
Intermediate/+2	C.B.S.E.	Shivam Convent, Patna	2009	88.20
Matriculation	C.B.S.E.	D.A.V. Public School, Khagaria	2007	90.40

RESEARCH INTERESTS

- Industrial Engineering, Operations Research
- Control Systems
- Fracture Mechanics
- Image processing

ACADEMIC PROJECTS

Defence Academy of United Kingdom, Cranfield University, UK.   **May, 2011- July, 2011**
Internship on Collaborative Visualization in Operation Planning

- Funded by **National Health Services, UK** for use in **Liverpool Heart and Chest Hospital**
- Developed an application for the doctors to work on images in a collaborative session. Different people at distant places, connected over internet, can annotate and comment on medical images using this application
- Built the application using IRIS Explorer, powerful visualization software based on C++.
- Good experience of working and interacting with people abroad.

Engineering Metallurgy Course Project   **July, 2010- Nov, 2010**
Material Properties for Automotive Gears

- Comprehensive study of the properties of materials commonly used in automotive gears
- Variation of gear properties with the composition of alloys
- Hardening of gear materials using heat treatment
- Types of gear failures and possible solutions to tackle the failures

Electronics Club, IIT Bombay   **May, 2010- July, 2010**
Summer Project on 3-D laser scanner

- Built a scanner, which can scan the lateral surface of an object and generate a 3-d image on computer
- The scanner uses a Laser pointer, to light the surface of object, which is rotating on a platform, and the video of the rotating object is captured from a camera
- **Image Processing:** Wrote a C++ code with Open GL and Open CV library commands to process the captured video and rendered a 3-d image of the scanned object showing very minute details of surface
- The project idea has wide range of applications, for example, in making of videos and movies, manufacturing processes, medical scans etc

Hobby Projects with Electronics Club, IIT Bombay
Attended the club sessions regularly and learnt Microcontrollers programming including feedback mechanism, PID. Built simple bots like line followers.

Batch Coordinator of Computer Programming and Utilization Course Lab   July, 2009- Nov, 2009
Led a batch of 24 students to complete the assigned Computer Lab project on C++ in first year.

Organiser, Mood Indigo   December, 2009
Organised the International Music Festival events in the cultural festival of IIT Bombay, Mood Indigo, which is also one of the largest college cultural festival in Asia.

Organiser, Techfest   January, 2010
Organized and poured innovative ideas to conduct the Robowars, considered to be the toughest robotics competition in the Asia's largest technology festival.

Languages: - English, Hindi, Sanskrit
Software skills

- **C/C++:-** Successfully completed the Diploma **in Computer Programming (DCP)** from Rashtriya Computer Saksharta Mission (RCSM), a reputed institute imparting programming skills.
- MATLAB SIMULINK (good knowledge), WinAVR for microcontrollers programming
- Other programming languages:- OpenCV and OpenGL, IRIS Explorer(software built on C++)
- MS-OFFICE : - Word, Excel, Powerpoint, Access

Music: - Playing guitar and violin. Pursued NSO in *Western Violin* in first year

Sports: - Lawn Tennis, Gyming and jogging regularly

Others: - Socializing with new people and different culture groups

Courses done/taken so far relevant to my interest areas:-

- Engineering Mechanics (*Spring, 2010*)
- Engineering Graphics and Drawings(*Spring, 2010*)
- Mechanics of Solids (*Autumn, 2010*)
- Thermodynamics (*Autumn, 2010*)
- Engineering Metallurgy (*Autumn, 2010*)
- Fluid Mechanics (*Spring, 2011*)
- Manufacturing Processes-I (*Spring, 2011*)
- Strength of Materials (*Spring, 2011*)
- Statistical Quality Control (*Spring, 2011*)
- Manufacturing Processes- II (*Autumn, 2011*)
- Heat Transfer (*Autumn, 2011*)
- Industrial Engineering and Operations Research – I (*Autumn, 2011*)
- Labs :- Fluid Mechanics Lab, Manufacturing Processes Lab, Solid Mechanics Lab

- **Department Ranked 4th** in a batch of 120 students
- Qualified the **1st** and **2nd** levels of **National Talent Search Examination**, conducted by **NCERT**, New Delhi (in 10th class, year 2007)
- Awarded Certificate of Excellence in Winter Tech-Skill Workshop, conducted by STUDe Club
- **All India Ranked 27th** in 2nd level of National Science Olympiad, conducted by SOFworld(9th class)