Praful Giriya | **10D110028**
Mechanical Engineering | **UG Third Year (B.Tech.)**
Indian Institute of Technology, Bombay | **Male**
Specialization: None | **DOB: 12 August 1992**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2012	9.18
Intermediate/+2	CBSE	Delhi Public School, Jodhpur	2010	94.60
Matriculation	CBSE	Delhi Public School, Jodhpur	2008	94.80

SCHOLASTIC ACHIEVEMENTS

- Awarded **AP** grade in Electricity and Magnetism for exceptional performance in batch of **700** *[2011]*
- Awarded prestigious **Kishore Vaigyanik Protsahan Yojana** (**KVPY**) fellowship by Department of Science and Technology, Government of India *[2010]*
- **Top 1%** in State round of **Indian Chemistry Olympiad** (**INChO**) organized by HBCSE *[2010]*
- Pursuing a **Minor Degree** in **Computer Science and Engineering** Department
- Was amongst top **300** candidates to be selected for **Indian National Olympiad in Informatics**(**INOI**) organised by Indian Association for Research in Computing Science *[2010]*
- Achieved **State Rank 18** in the **National Talent Search Examination** *(Level Two)* *[2009]*
- Awarded **Merit Certificate** by the CBSE board for being in top **0.1%** in the country *[2009]*
- Secured **State Rank 11** in Rajasthan **State Science Talent Search Examination** *[2008]*

ACADEMIC PROJECTS

National Chiao Tung University, Taiwan *[May'12-June'12]*

Solar Thermal Storage using Nanocrystals | Prof.Ming Chang Lu, Mechanical Engineering

- Reviewed the experimental setup to **enhance the efficiency of energy storage by using nano-fluids** (molten salt solutions embedded with nano-crystals) as the storage medium
- Analyzed the thermal conductivity of the same using Transient Hot Wire Method; deduced variations in conductivity based on the size, concentration and type of the nano-particles in the molten salt solution
- **Recommended several improvements** in the system, which were implemented to obtain better results

Solar Refrigerator cum Water Heater *[January'12-April '12]*

Prof. Milind Rane | Mechanical Engineering Department

- Worked in a team of 3 to find optimized conditions for **maximum coefficient of performance** of the Adsorption based Solar Refrigerator and Water Heater; did extensive literature survey on the topic
- Tested a prototype developed in the laboratory and compared its performance with existing systems

Finite Element Analysis of a Finned Surface *[October'12-Ongoing]*

Prof. S.K.Maiti | Mechanical Engineering Department

- Analyzing the thermal and mechanical properties of an axially symmetric structure containing fins, by modelling the system using **ANSYS**; including thermal as well as elastic stresses in the analysis
- Developing an analytical solution using finite elements in MATLAB; have achieved high degree of correlation between the modelling and the analytical data till now

Simulation of Micro-Cutting *[October'12-Ongoing]*

Prof. Ramesh Kumar | Mechanical Engineering Department

- Simulating the process of Micro-cutting of Mould Steel using Laser in **Deform** software package

COMPUTER SCIENCE PROJECTS

Sudoku Maker *[April'11]*

Prof. Rushikesh Joshi | Computer Science Department

- Developed an algorithm to generate a Sudoku puzzle; implemented functionalities viz. user defined difficulty levels; devised a procedure using operations on **multi dimensional arrays** for generating valid Sudoku and their solutions
- Implemented graphics through **FLTK**, a C++ GUI tool-kit for UNIX interface

Decision Tree Generator *[August'12]*

Prof. Ganesh Ramakrishnan | Computer Science Department

- Analyzed Decision Trees as a predictive model to map observations about an item to conclusions about the item's target value
- Developed a C++ program to generate Decision Tree for given data; analyzed the performance of the learning algorithm, using various statistical methods

GrapheMatics *[July'09-July'10]*

- Created interactive software for **plotting graph** of any real valued function using C++
- Encapsulated various features viz. graphical interface in MS-DOS and user-friendly functionalities like magnification, help, scaling etc. in the software

SOFTWARE SKILLS

- **Programming Languages***:* C, C++, SQL
- **Web Designing:** HTML,CSS
- **Software***:* MATLAB, ANSYS, Mathematica, Octave, Weka

COURSES UNDERTAKEN

Mechanical Courses	Thermodynamics, Solid Mechanics, Strength of Materials, Manufacturing Processes, Fluid Mechanics, Heat Transfer, Industrial Engineering and Operations Research, Applied Thermodynamics, Kinematics and Dynamics of Machine, Finite Element Analysis
Computer Science	Computer Programming, Discrete Structures, Data Structures and Algorithms, Introduction to Machine Learning, Network Theory
Miscellaneous	Calculus, Linear Algebra, Differential Equations, Electricity and Magnetism, Engineering Graphics and Drawings, Data Analysis and Interpretation, Economics, Electric Circuits, Engineering Metallurgy, Numerical Analysis, Astrophysics, Psychology

POSITION OF RESPONSIBILITY

Internship Coordinator| Institute Placement Team *[July'12 - Ongoing]*

- Working in a team of **24**; responsible for contacting companies to secure internships for over **1400** students
- Targeting an increase of **25%** in the number of firms on campus
- Actively pursuing new profiles in Mechanical Engineering firms to expand the scope of internships

Teaching Assistant | Electricity and Magnetism *[July'12 –Ongoing]*

- Assisting a professor in delivering lectures; **clarifying** doubts of **40** students by conducting tutorial sessions

EXTRA CURRICULAR

*Awarded **Hostel Cultural Special Mention** for displaying exceptional performance in cultural activities*

Language Skills	• Language Proficiency: **Hindi, English, Japanese**, **Sanskrit**, **French**
Music	• Proficient in playing **Harmonium**, **Spanish Guitar** • Performed in 'Anjali' an institute memorial function on occasion of Gandhi Jayanti • Awarded **Best Singer** in the school for the year 2007
Technical Competitions	• Hand Grip Mechanism Bot *[Oct'10]* ▪ Designed a robot for institute level technical competition to transfer boxes to a pole at higher elevation; applauded by organisers for concepts implemented and design ▪ Employed the use of 4-bar linkage mechanism for designing the gripper for the bot • Awarded Gold Certificate in **Technothlon** organised by IIT Guwahati
Literary Arts	• Secured **Rank 5** and **10** in **Map Quiz** over 2 years in succession; event was organized by Indian National Cartographic Association (INCA) • Won **Second Prize** in **National Science Day Quiz Contest** organized by Defence Research and Development Organisation (DRDO), Jodhpur • Achieved **Rank 5** in **National Sudoku Championship** held at Techfest
Leisure	• Reading, Badminton, Squash, Singing, Swimming, Puzzles, Globe-trotting