Disha J Talreja | **100110046**
Metallurgical Engineering & Material Science | **UG Third Year (B.Tech.)**
Indian Institute of Technology, Bombay | **Female**
Specialization: None | **DOB: 04-07-1991**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2013	8.92
Intermediate/+2	C.B.S.E.	Maharishi Vidya Mandir School	2009	89.60
Matriculation	C.B.S.E.	St. Raphael's Higher Secondary School	2007	92.80

OBJECTIVE: Seeking a **creative** and **challenging** internship to exercise my engineering and interpersonal skills

AWARDS AND SCHOLASTIC ACHIEVEMENTS:

- Currently **ranked 5th** amongst 120 students in Metallurgical Engineering and Material Science Department
- Awarded the **Undergraduate Research Award** by IIT Bombay ***(2012)***
- Secured **All India Rank 1958 ,** among more than 4-lakh students , in IIT- JEE ***(2010)***
- Secured **All India Rank 1467**, among more than 10-lakh students, and **State Rank 98** in AIEEE ***(2010)***
- Secured **All India Rank 243** in Indian Institute of Space Science and Technology ***(2010)***
- Awarded **the CERTIFICATE OF MERIT** by C.B.S.E. in All India Senior School Certificate Examination in **Mathematics, Science and Hindi** ***(2007)***
- Received **Merit-Cum-Means Scholarship** from IIT Bombay

WINTER INTERNSHIP 2012

Raja Ramanna Centre for Advanced Technology, Indore

- **Sintering Studies of Gadolinium Doped Yttrium Iron Garnet**
  (Dr L Aditya, Ferrite Lab Division, RRCAT, Indore)
  - Prepared various gadolinium doped yttrium iron garnet samples of different compositions through conventional powder metallurgical processes and studied the effect of different types of sintering processes on the density, shrinkage and magnetization values
  - Results obtained were analyzed so as to select a garnet of appropriate composition to be used in high frequency devices like circulators.

PUBLICATIONS

- **Sheet Metal Forming** ***(2011-2012)***
  (Prof K.Narasimhan , Metallurgical Engineering and Materials Science Department, IIT Bombay)
  - Published a **Research Paper** titled '*Evaluation of Failure Criteria for the Prediction of Necking Strain*' and presented the same in the **IDDRG Conference 2012** held at IIT Bombay
  - Used finite element analysis for simulating sheet metal forming processes(via Pam stamp software) to study the effect of mesh size on the ability of failure criterion to accurately determine localization and to develop an alternative and generalized failure criterion to determine localization

ACADEMIC AND COCURRICULAR PROJECTS:

- **Carbon Nanotubes** ***(Spring 2011)***
  (Prof A.S. Panwar, Metallurgical Engineering and Materials Science Department, IIT Bombay)
  - Constructed a schematic model of carbon nanotubes portraying a single walled carbon nanotube structure using clay balls and ice-cream sticks and analyzed different types of defects and dislocations present in it
- **Non-Newtonian Fluids** ***(Spring 2011)***
  (Prof A.S. Panwar, Metallurgical Engineering and Materials Science Department, IIT Bombay)
  - Developed a Non-Newtonian Fluid using corn starch and water(mixed in ratio 1:2) and studied its viscoelastic nature

- **Presentation Based On Adhesives** ***(Spring 2011)***
  (Prof A.S. Panwar, Metallurgical Engineering and Materials Science Department, IIT Bombay)
  - Based on study of structure, classification, physical and chemical properties and various applications of adhesives
- **Mechanical Aspects of an Iconic Structure** ***(Autumn 2011)***
  (Prof K. Narasimhan , Metallurgical Engineering and Materials Science Department, IIT Bombay)
  - Constructed a physical model of Burj-Al-Arab structure and analyzed it from a structural point of view
  - Analyzed the mechanical aspects of the structure and gave a presentation on the same.
- **C++ Project** ***(Spring 2011)***
  (Prof R.K. Joshi, CSE Department, IIT Bombay)
  - Developed different Triangle Based Designs using triangle rotation, scaling and translation
- **Visual Basic Project** ***(2009)***
  - Developed Banking Structure and Its Functionality
- **Technic Club** ***(2010)***
  - Created **F1 formula car** under Technic Club IITB which ran successfully through all hurdles
  - Created **Line Follower**, an autonomous robot which follows a line, using microcontrollers and op-amps

POSITIONS OF RESPONSIBILITY:

- **Coordinator of Entrepreneurship Cell in Public Relations and Operations Departments** ***(2011)***
  - Handled pre-event planning and promotion of events like **EUREKA** and **E-SUMMIT** using different strategies like creating CR's and developing creative posters under PR Department
  - Developed strategies to ensure efficient and successful execution of events under Operations Department
- **Organizer of Mood Indigo in Horizons and Competitions Departments** ***(2010)***
  - Responsible for conducting all **fine arts** based competitions under Competitions Department
  - Organized **vogue** on a large scale along with many creative **workshops** under Horizons Department
- **Organizer of Techfest in PKR department** ***(2011)***
  - Organized an event named **Verizon**-a social entrepreneurship based competition
  - Handled **Hydranoid** event in which students made rope climbing machines using hydraulic mechanisms

COMPUTER SKILLS:

- **Programming Languages:** C, C++, Java Core, Visual Basic, Fox-Pro
- **Software and Operating Systems:** MS Office, LT Spice, Pam Stamp 2G, Windows, Ubuntu

EXTRA-CURRICULAR ACTIVITIES:

- Exhibited my paintings in **Kaladarshan** ***(2011)***
- Participated in **Face Painting competition in Freshiezza** ***(2010)***
- Participated in **music video making and editing** ***(2010)***
- Awarded first prize in **Maggie Quiz Competition** ***(2004)***
- Reached the finals of **Bournvita Quiz Contest** held at national level
- Participated in **National Essay Competition**

RELEVANT COURSES

- Pursuing a minor in **Electrical Engineering**
- **General Courses-**Calculus, Linear Algebra and Differential Equations, Modern Physics, Computer Science, Theory of Machine and Machine Design
- **Department Courses-**Mechanics of Materials ,Structure of Materials ,Thermodynamics of Materials, Mechanical Behaviour of Materials ,Transport Phenomenon ,Phase Transformations ,Ceramics and Powder Metallurgy and Experimental Techniques in Material Science
- **Labs-**Metallographic& Structure Characterization Lab ,Heat Treatment Lab ,Mechanical Testing Lab, Electrical and Electronics Lab and Experiment and Measurement Lab