

# Mohit Jani

Citizenship : Indian Date of birth : 12 Feb 1990

## Contact

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## Education

<b>2008 to 2013</b>	<b>B.Tech.+M.Tech. (Dual Degree)</b> from Metallurgical and Material Science Dept. Indian Institute of Technology, Bombay	<i>CPI : 7.33/10</i>
<b>2008</b>	<b>Intermediate +2 – HSC Board</b> P.B. Jog junior college, Pune	<i>Percentage : 81.2</i>
<b>2006</b>	<b>Matriculation – ICSE Board</b> Cambridge School, Aurangabad	<i>Percentage : 90.2</i>

## Scholastic Achievements

- Ranked 2326 in IIT-JEE. Inside top 0.6% among 0.4 million students.
- Was placed in top 1% students in Maharashtra and top 10% in India in the National Standard Examination in Physics 2007-08.
- Secured second position for my science project (Accident spot detection mechanism) at the National Science Week Celebrations.
- Was awarded the Certificate of Merit in Maharashtra Talent search examination (MTSE).

## Internships

### PANalytical, Mumbai

May to July, 2011

- ü Conducted in depth research about Indian glass and ceramic industry to understand various analytical techniques implemented for evaluation/analysis of raw materials, intermediates and final products.
- ü Compiled databases of prospects of XRF and XRD in Indian glass and ceramic industry.
- ü Identified companies which would benefit from using XRF and XRD as a method for analysis of various materials.

### R.L. Steels Ltd., Aurangabad

May to July, 2011

- ü Gained valuable industrial experience at R. L. Steels Ltd. which is one of the leading alloy steel plants in western India and specializes in manufacturing carbon, alloy and special steel products.
- ü Studied the effects of carbon content, alloying elements and reduction ratio on the microstructures of different grades of steel from different batches.
- ü Conducted a root cause analysis of the observed differences in microstructures of samples made under different conditions.

## Projects and Presentations

### Effect of additives on iron powder compaction (Guide Prof. Parag Bhargava)

Dec, 2010

- ü It was a collaborative work with Hognas India Pvt. Ltd. and Industrial Metal Powders.
- ü Identified the correct size of small powders to be added to make best green bodies with highest flexural strength.
- ü The strength was observed to increase by around 5% by addition of small powders which provide better packing during compaction.

### Scratch resistance in ceramic tiles (Guide Prof. Parag Bhargava)

Jan, 2011

- ü Conducted experiments to determine scratch resistance for various ceramic tiles provided by Indian Navy.
- ü Estimated the correct amount of scratch resistance required to allow movement of heavy machinery on the tiles.

### Seminar on Photocatalytic Hydrogen Generation (Guide Prof. Bahadur)

Sept, 2010

- ü Studied and presented reports on the need and importance of photocatalytic hydrogen generation as the one of best ways of producing hydrogen gas using only renewable energy resources.

### Seminar on Wear Protective Nanostructured thin films (Guide Prof. Rajiv Dussane)

Sept, 2010

- ü Nano design routes for ceramic thin films by PVD were reviewed.
- ü Studied super lattices which show crystal rotation near wear zones, the concept of age hardening of coating materials was then presented.

### Colloidal analysis of water based paints (Guide Prof. Ajay Singh Panwar)

Nov, 2009

- ü Studied the basic components and working of water borne paints and how colloids and interfacial science plays a major role in their working.

## Positions of Responsibility

### Department Academic Mentor

2011

- Was chosen as a department academic mentor for junior students by a committee comprising of senior students and professors.
- Helped my mentees to settle in and solved their academic problems to enhance their overall performance in the department.

### Teaching Assistant , CS101

2011

- Was chosen to be a teaching assistant for the introductory course on C++.
- Helped students code in C++ by conducting lab sessions.

### Manager, Media and Marketing in Padarth, 2011

March, 2011

- PADARTH is the annual national material science festival of the department of Metallurgy and Materials Science, IIT Bombay with a footfall of over 500.
- Handled a budget for over 0.1 million rupees and have been actively involved with the festival for past three years.
- Was responsible for all Media articles and coverage in almost all local newspapers before and during the fest.

### Coordinator, Horizons in Mood Indigo, 2009

Dec, 2009

- Mood indigo is Asia's largest college cultural festival.
- Was responsible for creating and execution of different competitions during Mood Indigo.

### Coordinator, Media in Techfest, 2010

Jan, 2010

- Was responsible for media coverage in many different local and national newspapers.
- Coordinated sponsorship deal for media articles with OUTLOOK magazine.

## Relevant Courses

- Metallurgical and material science: Science and Technology of Thin Films , Ceramics and Powder Metallurgy , Phase Transformations, Mechanical Behaviour of Materials, Thermodynamics of Materials, Kinetics of Processes, Colloidal & Interfacial Science, Transport Phenomena, Mechanics of Materials, Structure of Materials, Materials & Technology, Electronic Properties of materials, Metal Casting and joining, Engg. Polymers & Composites of Materials, Iron & Steelmaking, Ceramic Processing Techniques.
- Other courses: Modelling and Analysis, Modern Physics, Entrepreneurship in Materials Engineering, Experimental Techniques in Materials Science, Theory of Machines and Machine Design Differential Equations, Linear Algebra, Data Analysis and Interpretation, Computer Programming and Utilization, Economics, Calculus, Electricity & Magnetism, Introduction to numerical analysis, Process Control Theory and Instrumentation.
- Laboratory courses: Metallography and Structural Characterisation Lab, Engineering Graphics & Drawing, Heat Treatment Laboratory , Mechanical Testing Lab. , Electrical/Electronics Lab, Manufacturing Process Lab., Computation and controls Lab.

## Skills

- Have intermediate level skill in C++. Also completed two courses in C++ as part of my curriculum.
- Also have basic level skill in using the Java programming language.
- Proficient in designing software Adobe Photoshop and Adobe InDesign.
- Have experience with MATLAB software.
- Have advanced level skill in working with Windows, Linux (Ubuntu) and Macintosh operating systems.

## Extra Curricular Activities

- Successfully completed the BASIC MOUNTAINEERING COURSE from Atal Bihari Vajpayee institute of mountaineering, Manali, reaching 17000 feet as highest gained height.
- Played lawn tennis at district level and also secured 5th position in lawn tennis open at IIT Bombay.
- Was awarded the certificate of merit in Swimathon (swimming endurance test) at IIT Bombay, and swam continuously for 2.45 kms in 2.5 hours.
- I am a member of the hostel water polo, lawn tennis and football teams.
- Was the lead guitarist in the school band and secured the first position in inter school drill band competition from 2004 to 2006.
- Won many quizzes and sporting events at inter school level.
- Have an avid interest in music, football, travelling and mountaineering.