

Sheshank Kumar

UG Fourth Year (Dual Degree)
Metallurgical Engineering & Material Science
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Examination/Degree	University/Board	Institute/School	Year	CPI / %
Dual Degree	IIT Bombay	IIT Bombay	5 th Year	8.78
Intermediate/+2	CBSE	DAV Public School	2009	91.40
Matriculation	CBSE	Ramakrishna Vivekananda Vidyapeeth	2007	95.80

SCHOLASTIC ACHIEVEMENTS

- **Department Rank 2**, in the dual degree batch of 54 students.
- Achieved a **perfect Semester Performance Index of 10.0** in spring 2012.
- Awarded **AP grade** for excellent performance in Introduction to Nanotechnology.
- Attained **All India Rank-46** in Metallurgy and Material Science in IIT-GATE 2013.
- Received **excellence award** for outstanding performance and securing 1st rank in class at matriculation (95.8%).
- 1 out of 4 youngest students (class-8) to be selected for Indian National Olympiad in Informatics (2005) for 2nd round.
- Secured All India Rank-343 in National Science Talent Search Exam during 2005-06.
- Attained 7th rank at state level in National Cyber Olympiad during 2005-06.

ACADEMIC PROJECTS and TRAINING

Intern, **Aditya Birla Science and Technology Company Ltd**, Mumbai, India

[May-july 2012]

- Worked with the **core research group on live projects** in corrosion and material science department.
- **Optimized different parameters** of electropolish process such as voltage, time, temperature and electrolyte experimentally and **analyzed the data** obtained to maximize the reflectance.
- Studied and carried out different coating techniques such as **anodization, superhydrophobic SiO₂ coating, etc.** to protect the electropolished surface from corrosion with minimum loss in reflectivity.

Simulation and Modeling in Material Science, *guided by Prof. M.P. Gururajan*

[Jan-April 2012]

- Performed **Monte-Carlo Simulations** for ordering in binary alloys and grain growth in many-grain system on the basis of interaction energy.
- Performed **Molecular Dynamics simulation** for gaseous particles following Lennard-Jones potential.
- Simulated grain growth and corresponding **microstructural evolution** using **phase field modeling**.

Resource Constrained **Project Planning and Scheduling** (Project Management)

[Sep-Nov 2011]

Guide: Prof. Pankaj Dutta, School of Management, IIT Bombay

- Developed the **algorithm and C++ code** which schedules all the related activities of the given project on the basis of its importance, resource constraints, precedence relations, etc.
- Results obtained were much **better than those obtained from Microsoft-Project** on a number of occasions.

Seminars

Thorium fueled Nuclear Technology and its role in India's Nuclear Programme

- Did a literature survey which discussed the available thorium based nuclear reactors, fuel cycle, fuel fabrication, processing, and recycling, challenges and overall role of thorium in India's three-stage Nuclear Programme.

Manufacturing Process Seminar

- Disassembled a *Nitro Engine* and explained the materials and manufacturing process involved in the production of various parts.
- Investigated various manufacturing steps involved in production of *Pressure Vessels* and summarized that in class.

POSITION OF RESPONSIBILITY

WORKSHOPS, EXHIBITION AND LECTURE SERIES MANAGER, PADARTH-2012

(Annual Technical festival of MEMS department)

- Managed and organized more than 10 workshops, exhibitions, guest lectures and lab tours combined and **personally invited the guest lecturers** for the main event.

INITIATIVES

- Conceptualized a social campaign, '**Litre of Light-Mumbai**'- to light houses in slums which received coverage from **TV channels** like Star News, CNN IBN & **leading dailies** like The Hindu, HT, DNA.
- Conducted workshop to create solar bottle bulbs, seeing participation from **55+ volunteers**.

COORDINATOR, HOSPITALITY, MOOD INDIGO-2010

- **Solely planned and managed** the distribution of goodie bags and coupons to all the participants.
- Worked in the group of 10 coordinators and 2 managers and planned the whole working of the Hospitality department.
- Visited different colleges for **publicizing the events, competitions**, etc. which were held in Mood Indigo 2010.

EXTRA-CURRICULUR ACTIVITIES AND ACCOLADES

SPORTS

- Participated in **Inter-School Cluster Basketball Tournament** for the years 2005 and 2006.
- Selected for **Inter-IIT Basketball** camp. [2011]
- Awarded **Hostel-9 Sports Colour** for my performance in various sports. [2011]
- Played in main five and won the basketball GC. [2011]
- Represented hostel-9 in **Table-Tennis GC, Athletics GC, Kho-Kho GC**, etc. [2010]
- Won positions for the Hostel in **Sophie and Main Crossy GC**. [2009]

CULTURAL

- Organizing member of winning team of PAF (Performing Arts Festival). [2010]
- Won second prize in speech and essay writing competition at school.

INTEREST

- Have avid interest in Puzzles, Basketball, Chess, Physics, Distance Running, etc.

SOFTWARE SKILLS

- **Computer Languages:** C, C++
- **Technical Softwares:** MATLAB, Octave, Scilab, MS-Office