

EDUCATION

Indian Institute of Technology, Roorkee, 2011 - Present

Bachelor of Technology in Metallurgical and Materials Engineering

CGPA: 9.614/10, Ranked 1st in the Department out of 90 students and in the Top 5 in the Institute out of 1050 students.

RESEARCH PROJECTS

Carbon Nano-tubes for Field Emission (IIT Roorkee)

Jul 2014 - Present

- Optimization of the growth of Carbon Nanotubes on Metal Foams by Chemical Vapor Deposition as part of the Lahiri group in the Metallurgical and Materials Eng. Department
- 3D Carbon Nanotube – Metal Foam architectures being utilized to enhance field emission characteristics.

ZnO - reduced Graphene Oxide Solar Cells (University of Waterloo)

May 2014 – Jul 2014

- Developed solar cells using electrodeposited Zinc Oxide films and thermally reduced Graphene Oxide as part of the Maheshwari group in the Quantum Nano Center. Research was funded by the Mitacs Globalink Program.
- Electrodeposited Zinc Oxide films were also used as a high surface area substrate for MnO₂ based Supercapacitors.

INDUSTRIAL INTERNSHIPS

Bharat Heavy Electrical Limited, Haridwar

Jun 2013 – Jul 2013

- Conducted Electron Microscopy of various casting defects encountered by the heavy foundry.
- Gained experience operating the Scanning Electron Microscope as well as deriving meaningful conclusions that would provide actionable advice to prevent future defects.

ACADEMIC PROJECTS

Manganese Dioxide based Supercapacitors

Jul 2014 – Oct 2014

- As part of MT491 – Minor Project, studied different nano-structured films for Manganese Dioxide Supercapacitors.
- Conducted extensive literature review of feasibility, economics and future potential of these Supercapacitors.

Ideal Newspaper for IIT Roorkee

Aug 2013 – Nov 2013

- As part of IBM06 – Marketing Research, used statistical tools to predict the ideal newspaper for IIT Roorkee.
- Used SPSS to create models for best fit newspaper with weightage for each newspaper section based on a survey.

COMPUTER SKILLS

- Software Packages – LAMMPS, SolidWorks, MS-Office, SPSS
- Programming Languages – Visual Basic, C++

LEADERSHIP

Joint Secretary of Philately and Numismatics Section

Jul 2013 – May 2013

- Assisted in organizing events and popularizing coin and stamp collecting.
- Responsible for the social media presence of the section and grew membership from 30 to 65 members.

Student Member – The Minerals, Metals and Materials Society

Aug 2013 – Present

- Attended and conducted seminars and meetings to promote Materials education in IIT Roorkee.

SCHOLASTIC ACHIEVEMENTS

- Selected for the Mitacs Globalink program to carry out undergraduate research at University of Waterloo in 2014.
- Awarded the O.P. Jindal Engineering and Management Scholarship in 2013.
- Awarded NTSE scholarship based on National Talent Search Exam conducted by NCERT in 2008.
- Secured State Rank 2 in Karnataka Regional Mathematics Olympiad in 2011.
- Placed in the top 1% at State level in both Physics and Chemistry Olympiads in 2010.
- Won the J.N.Tata Memorial Science Quiz conducted by Indian Institute of Science, Bangalore in 2010.

NON-SCHOLASTIC ACHIEVEMENTS

- Won awards in various categories for Coin and Stamp Exhibitions held in IIT Roorkee in 2013-14.
- Selected from 50 teams as finalist of Case Study competition to present a case to top level executives of Shell in 2014.
- Conducted quizzes as part of Cognizance – the annual technical festival of IIT Roorkee in 2014
- Volunteered at National Service Scheme and taught underprivileged physically handicapped children in 2011-12.