MRIDUL SHARMA **153110060**
Metallurgical Engineering and Materials Science **M.Tech.**
Indian Institute of Technology Bombay **Male**
Specialization: Corrosion Science and Engineering **DOB: 14/07/1991**

Examination	University	Institute	Year	CPI / %
Post Graduate Diploma in Computer Application	IGNOU	IGNOU	2024	63.94%
Post Graduation	IIT Bombay (Corrosion Science & Eng.)	IIT Bombay	2017	7.78
Undergraduate Specialization: Metallurgical And Materials Engineering				
Graduation	NIT Trichy	NIT Trichy	2015	7.62
Intermediate/+2	NIOS	NIOS Sojat	2009	60.00
Matriculation	CBSE	J.N.V. Jojawar	2006	62.80

SCHOLASTIC ACHIEVMENT

- Secured 320 all india rank in **GATE (METALLURGY)** amongst 3,500 candidates. *(Aprail-2015)*
- Selected in "**Jawahar Navodaya vidyalaya"** entrance exam, Organized by **Ministry of Human Resource development Department of School Education and Literacy Government of India**. *(2005)*
- Secured 2nd rank in **"Bhartiya snaskriti gyan pariksha**" organized by "BSGP haridwar" which is helpful to be attractive and balanced personality. *(2004)*
- Participated in **"Rajiv Gandhi computer education week"**, organized by **COMPUCOM COMPUTER EDUCATION** and placed in grade "C" after satisfying the necessary examination requirement. *(2002)*

WORK EXPERIANCE

- Worked as **Research and Development Engineer** in **Metallizing Equipment Co. Pvt. Ltd**. (**Jodhpur**) For one year. Area of work includes designing and developing various thermal spray guns and optimize the various methods used in the coating process. (*2017-2018)*
- **Founder & Director, Anant Academy** – Established and successfully managed a premier coaching institute, driving student success through innovative teaching methodologies and personalized learning strategies. *(2019- present)*

PROJECTS

- **Master Thesis Project:** Spinal coating on **Crofer 22 APU** to reduce the Cr evaporation rate at its operating temperature**.**
  (*Guide: Prof. Ashutosh S. Gandhi and Prof M.J.N.V. Prasad , MEMS, IITB*) *(May 2016- 2017)*
  - **Crofer 22 APU alloy** is electrodeposited with metallic layers such as Mn, Co, Ni to form the spinal coating on the alloy.
  - **SEM and EDAX** is done for both coated and un-coated samples to analyze the surface composition and the thickness of the coating.
  - Thickness of Cr_2O_3, Reaction layer and top layer is analyzed as a function of time at a given temperature
  - Cr evaporation rate is determined by measuring the thickness of the Cr_2O_3.
  - ASR(area specific resistance) and kinetics of oxidation is determined and the Properties of coated samples compared with un-coated samples.
- **Seminar Project:** Methods of production of **GOES** (Grain oriented electrical steel) which is used in the transformer core to reduce the **Hysteresis loss , Eddy current loss and Anomalous loss.**
  (*Guide: Prof. Indradev S. Samajdar, MEMS, IITB*) *(January-May 2016)*
  - Methods of different companies like Armco, Nippon and Kawasaki methods to produce the grain oriented electrical steel.
  - Studied the cause behind the reduction in these losses.
  - **"GOSS Orientation"** forms after secondary recrystallization.
  - Effect of Primary cold rolling, Secondary cold rolling on the final texture
- **B. Tech Project**: microstructural and mechanical properties of hypoeutectic Al-7Si-XCu-XMg modified using master alloy Al_5Ti1B as a grain refiner.
  (*Guide: Prof. S. P. Kumaresh Babu*) *(January - May 2015)*
  - The Effect of Grain refiner Al_5Ti1B and the modifier Al-Sr is analysed with the different combination of amounts of grain refiner and modifier with varying the holding time.
  - Cu increases strength and hardness while Mg increases machinability.

PRESENTATION

- Presented the **Poster during Graphine symposium On Graphine based Nano composite**: Prepration, Functionalization, Energy and Environmental Application , Organized by IIT Bombay under the Guidance of Prof. A. S. Khanna. *(August 2016)*
  - Preparation of Graphine Nano-Composite: Non covalent interaction, covalent reaction, In situ electroless deposition.
  - Functionalization by molecule, Nano Object or Polymers.

MEMBERSHIP

- Member of "**NACE INTERNATIONAL",** word's largest professional organization for the corrosion control industry. *(2015) Onwards*
  - Attended NACE gateway India foundation day organized in Mumbai.

TECHNICAL COURSES

- Successfully completed the course in "**Technical communication for scientist and Engineers",** a course offered by IITBombayX ,an online learning initiative of IIT Bombay. *(January - May 2016)*
  - **Scientific Methods of Communication.**
  - **Reading Scientific articles.**
  - **Speaking skills and oral presentation.**
  - **Email Communication in technical environment.**

MANAGEMENT COURSES

- Completed the course on "**MANAGEMENT CONCEPTS AND PRACTICE**",a course facilitates the students to understand about the functional areas of management from NIT Trichy. *(July-December 2014)*
- Completed the course on "**ENTREPRENERURSHIP DEVELOPMENT",** a Course offered by Centre for Entrepreneurship Development and Incubation (CEDI). *(July-December 2014)*
- Completed the course on "**PROFESSIONAL COMMUNICATION**",a course offered for independent and effective communication for their professional needs from NIT Trichy. *(January-May 2012)*

POSITION OF RESPONSIBILITY

- **Teaching Assistant, IIT Bombay:** Mechanical testing lab. *(July 2016-Present)*
  - Tension, Compression, Creep, Torsion Tests.
- **Teaching Assistant, IIT Bombay:** Fourier transformation infrared spectroscopy lab. *(Dec.2015- May 2016)*
  - To obtain **Infrared** spectrum of absorption or emission of a solid, liquid or gas.
  - Thin film samples and Powder samples be able to handle.
- Student Manager at **Dhruva club**, one of NIT TRICHY'S club focuses on philosophical aspect of life. *(2011)*
  - Used to Conduct the internal session conducted by the club.

COMPUTER PROFICIENCY

- Successfully completed the "**CORE JAVA",** course with Honors grade from NIT SURATKAL *(May- June 2012)*
- Completed the course on **C, C++,** and basics of **UNIX** from NIT TRICHY.
  - Concept of Object oriented Programming languages, Programming concepts in C and C++, Internal representation of files, System calls for files etc.

EXTRA CO-CURRICULAR ACTIVITIES

- Participated in "**GRAPHINE SYMPOSIUM",** Organized by IIT BOMBAY and Society for Surface Protection Coating India (SSPCI). *(August 2016)*
- Completed the Course on Basic introduction to Music Information Technology, from the NIT Trichy. *(January- May 2015)*
  - Learned Basics of Karnartic Music, Able to compose Music using "**MIDI EDITOR SOFTWARE**", software providing an interface to edit, record, and play **Midi**data.

ACADEMIC INTEREST

- Aqueous corrosion problems in pipelines, Methods of Protective coating etc.

OTHER INTEREST

- Singing.
- News paper reading.
- Cooking.