

Vivek Dwivedi

Address: L 66 LIG Sector 4 Vrindavan Vihar Naubasta Kanpur 208021

Email: vivekkumar.993540@gmail.com

Phone: 8146454219

Projects

Optimization of Central Shrinkage

Hospet Steel Ltd., Nov 2023 – Dec 2024

- Reduced rejection rates in low- and medium-carbon steel casting from 35% to 20%.

Oxygen Injector Nozzle Improvement

Hospet Steel Ltd., Oct 2023 – Oct 2024

- Increased nozzle life in the Energy Optimizing Furnace by implementing advanced thermal management techniques.

Heat Loss Control in Ladle Transport

Hospet Steel Ltd., Aug 2023 – Aug 2024

- Reduced heat loss during ladle transport by 20%, enhancing process efficiency.
-

Professional Experience

Project Engineer

Hospet Steel Ltd.

July 2024 – Present

- Focused on solving issues in continuous casting processes and improving product quality.
- Led efforts in process optimization and quality control to enhance efficiency and reduce defects in steel manufacturing.

Research Assistant (TEM Operations)

NIT Surathkal

July 2023 – June 2024

- Conducted daily operations and preventive maintenance of JEOL-2100 TEM equipment.
- Prepared samples for advanced analysis, focusing on precision and quality.

Career Objective

To excel in a dynamic environment that fosters growth and innovation, contributing meaningfully to organizational success while pursuing personal and professional development.

Educational Qualifications

| Degree/Certificate | Institution/Board | Year | CGPA/Percentage |
|--|--|------|----------------------|
| M.Tech (Process Engineering) | National Institute of Technology Surathkal | 2024 | 8.86 (Gold Medalist) |
| B.Tech (Mechanical Engineering) | Lovely Professional University | 2017 | 7.34 |
| Higher Secondary (Class XII) | Maharishi Vidya Mandir, CBSE, Kanpur | 2013 | 61% |
| Secondary School (Class X) | Maharishi Vidya Mandir, CBSE, Kanpur | 2011 | 7.2 |

Technical Skills

- **Software Proficiency:** SolidWorks, ANSYS, MS Excel, MS Power Point
 - **Programming Languages:** C++, Python
 - **Equipment Expertise:** Transmission Electron Microscopy (TEM), Ion Polishing, Dimple Grinder, XRD, Optical Microscopy.
 - **Soft Skills:** Problem-Solving, Leadership, Communication, Time Management, Analytical Thinking, Adaptability.
-

Academic Project

Training on Transmission Electron Microscopy (TEM)

For a span of one year, I have been trained on the operation and maintenance of TEM, JEOL-2100, JAPAN. The training majorly focused on the daily operative and preventive maintenance (like ACD baking and bake out) and the sample preparation, which is a great concern for the industries.

Sample Preparation for TEM

Powder sample preparation using drop cast technique over the carbon coated copper grid.

Metal Sample Preparation from bulk to strip using instruments like, disc grinder, disc punch, dimple grinder, and ion polishing system.

Maglev Train Prototype

- Designed a cutting-edge magnetic levitation transport system integrating permanent magnets and fans for efficient propulsion.
-

Internship

Steel Authority of India Limited (SAIL)

Bhilai Steel Plant

June 2023 – July 2023

- Investigated the causes of tuyere failures and gas channeling issues.
 - Proposed actionable solutions to enhance process efficiency and reliability.
-

Workshops, Certifications, and Seminars

- SolidWorks Workshop, Lovely Professional University
 - Certified in SolidWorks, Udemy
 - Presented at International Conference on Innovation in Applied Science and Engineering (ICIASE - 2022)
-

Achievements

- Gold Medallist (MTech, 2024).
- Placement Coordinator.
- Class Representative.