

Shashi Ranjan

Assistant Manager
Operation



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📋 PROFESSIONAL OVERVIEW

Results-driven Operations & Manufacturing Professional with 11+ years of experience in Iron & Steel and Graphite Electrode industries. Expertise in Plant Operations, Production Management, Heat Treatment, Annealing Furnaces, Tunnel Kilns, HOBs, Autoclave, TPM, Lean Manufacturing, Reliability Improvement, and Continuous Improvement. Proven track record of enhancing productivity, reducing costs, improving equipment reliability, and leading cross-functional teams to achieve operational excellence, safety, and quality objectives.

🏆 AWARDS & RECOGNITIONS

1st Prize – Best Safety Award

Internal Departmental Competition

2025

1st Prize – Best 5S Implementation Award

Internal Departmental Competition

2025

Gold Medal

Quality Circle Forum of India (QCFI)

2023

🛠️ PROFESSIONAL EXPERIENCE

Rashmi Green Hydrogen Steel Pvt. Ltd.

Assistant Manager

05/2026 – Present | Kharagpur, West Bengal

- Managed end-to-end Annealing Furnace operations in the Ductile Iron Pipe (DIP) plant, ensuring production targets, product quality, and safety compliance.
- Led production planning, manpower management, and shift operations to optimize productivity and resource utilization.
- Monitored key operational KPIs including OEE, fuel consumption, downtime, and rejection trends, driving continuous improvement initiatives.
- Coordinated preventive and breakdown maintenance of furnaces, utilities, and material handling systems to maximize equipment availability and reliability.
- Implemented TPM, SOPs, Lean Manufacturing, and cost optimization projects to improve operational efficiency and reduce losses.
- Ensured compliance with quality standards, metallurgical requirements, safety regulations, and customer specifications through cross-functional collaboration.

HEG Limited

Production Executive

06/2018 – 05/2026 | Bhopal, Madhya Pradesh

- Managed Impregnation and Rebaking operations in graphite electrode manufacturing, ensuring production targets, quality standards, and operational excellence.
- Led production planning, manpower management, and resource allocation to optimize productivity and process efficiency.
- Monitored key KPIs including OEE, downtime, cycle efficiency, consumable consumption, and rejection trends to drive performance improvement.
- Coordinated preventive maintenance and reliability initiatives for furnaces, autoclaves, nitrogen plants, and utility systems to maximize equipment availability.
- Implemented TPM, Lean Manufacturing, SOPs, and continuous improvement projects to reduce costs, improve energy efficiency, and enhance process reliability.
- Collaborated with Quality, Maintenance, and Utility teams to ensure product quality, safety compliance, and sustainable operations.

Jai Balaji Industries Limited

Operations Engineer

09/2016 – 06/2018 | Durgapur, West Bengal

- Sector: Iron & Steel Industry
- Led heat treatment operations, ensuring optimal furnace performance and product quality.
- Developed and refined process parameters, enhancing the efficiency and effectiveness of annealing processes.
- Managed equipment maintenance schedules, minimizing production disruptions and extending machinery lifespan.

Excellence Award

National Convention on Quality Concepts (NCQC), Nagpur
01/12/2022

Suggestion Scheme Awards

Multiple for Process Improvement, Cost Reduction, and Operational Excellence



CORE COMPETENCIES

Operations & Maintenance Management

Production Planning, Process Optimization, Resource Allocation, Plant Operations, Asset Reliability, Shutdown Management

Furnace & Process Engineering

Annealing Furnace, Tunnel Kiln, Rebaking Furnace, Heat Treatment Processes, Autoclave Operations, Utility Management

Project Execution & Commissioning

Project Planning, Equipment Installation, Furnace Commissioning, Operational Readiness, Cross-Functional Coordination

Maintenance Excellence

Preventive Maintenance, Breakdown Maintenance, TPM, Root Cause Analysis (RCA), Reliability Improvement, OEE Enhancement

Continuous Improvement & Cost Optimization

Lean Manufacturing, Kaizen, 5S, Energy Conservation, Process Improvement, Cost Reduction Initiatives

Quality, Safety & Compliance

ISO Standards, Process Audits, Quality Control, Risk Assessment, Safety Management, EHS Compliance

Leadership & Team Development

Team Management, Workforce Development, Training & Mentoring, Performance Management, Cross-Functional Collaboration

Digital & Analytical Skills

ERP Systems, Microsoft Excel, KPI Monitoring, Data Analysis, Power BI (Basic Level – Learning)

- Ensured compliance with environmental and safety regulations, creating a secure and sustainable work environment.
- Key Achievements:
 - Achieved high production efficiency, setting new benchmarks for output and quality.
 - Reduced downtime by implementing effective troubleshooting and preventive maintenance strategies.
 - Maintained an accident-free record by adhering to stringent safety protocols.

Rashmi Metaliks Limited

Assistant Production Engineer

04/2015 – 09/2016 | Kharagpur, West Bengal

- Sector: Iron & Steel Industry
- Directed heat treatment operations, focusing on process optimization and workforce management.
- Played a key role in enhancing furnace operations through innovative process adjustments and quality improvements.
- Managed the implementation of safety measures, ensuring a hazard-free workplace.
- Provided technical support and maintenance oversight for critical production equipment.
- Key Achievements:
 - Consistently delivered high-quality outputs, surpassing production targets.
 - Implemented effective maintenance procedures, reducing operational costs and downtime.
 - Fostered a culture of safety, achieving a significant reduction in workplace incidents.



MAJOR PROJECTS & IMPROVEMENT INITIATIVES

New Autoclave Installation & Commissioning

HEG Ltd.

- Coordinated with the project team during erection, commissioning, and startup of a new autoclave system.
- Established operating parameters and startup procedures for stable and reliable operation.
- Supported capacity expansion and process reliability improvement initiatives.

Tunnel Kiln Water Management & Rail Reliability Improvement

- Conceptualized and designed a modified cooling water distribution system to reduce water losses and improve water management.
- Worked with the project team to implement the designed system, eliminating water accumulation near kiln rails and preventing corrosion.
- Improved asset life, operational reliability, and maintenance performance.



CERTIFICATION

- Power BI Micro Course
- Operation Manager Assessment
- Introduction to Six Sigma
- Microsoft Excel Beginners to Advance



EDUCATION

Bachelor of Technology in Mechanical Engineering

West Bengal University of Technology
2015
DGPA: 8.43/10

Senior Secondary (12th Grade, CBSE)

Kendriya Vidyalaya Sonpur
2010
Score: 76.2%

Secondary School (10th Grade, CBSE)

Kendriya Vidyalaya Sonpur
2008
Score: 78.2%



ACADEMIC PROJECTS & ACHIEVEMENTS

Academic Projects & Achievements

- Developed a novel propulsion system using Smart Electro Active Polymer material, contributing to advancements in automotive technology.
- Innovated a method to reduce engine weight by replacing the conventional crankshaft with an epicyclical crank mechanism.
- Secured 1st place in a college tech fest for a project focused on I.C. engine weight reduction.
- Achieved a competitive GATE score of 388 in 2015, reflecting strong technical proficiency.
- Recognized as the branch topper during the 2nd year of B.Tech.

Tunnel Kiln Sagger Dimension Check-Post System

- Conceptualized and designed a dimensional verification system to prevent oversized kiln car loading.
- Executed the project in coordination with the project team through fabrication, installation, and commissioning.
- Eliminated sagger toppling incidents, tunnel wall damage, and associated production losses.

Safe Loading & Unloading Platform Development

- Conceptualized and designed a dedicated loading/unloading platform to improve operator accessibility and workplace safety.
- Implemented the project with the project team and successfully commissioned the platform.
- Reduced work-at-height risks and improved maintenance accessibility.

Electrode Handling Safety Fixture Development

- Conceptualized and designed a customized wooden fixture system for safe graphite electrode handling and storage.
- Executed the project in coordination with project and maintenance teams.
- Reduced handling damage, improved operator safety, and enhanced material handling efficiency.

New annealing Furnace Commissioning & Startup

- Contributed to the commissioning and startup of a new furnace facility in coordination with project and Chinese OEM teams.
- Supported process stabilization, SOP development, workforce training, and operational readiness activities.
- Achieved stable production, quality compliance, and reliable furnace operation during ramp-up.



PROFESSIONAL DEVELOPMENT

Vocational Training at BSC-C&C JV

Duration: 15 days

07/2014

Focus: Workshop operations and road construction machinery.

Winter Industrial Training at SAIL

Duration: 15 days

12/2013

Focus: Overview of heavy vehicle operations, machine shop processes, and plant operations.