

Prashant Shankar Kshirsagar

Global Senior Metallurgist Leader | Business Excellence Innovator | Precision, Performance, Profitability

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CAREER OBJECTIVES:

Global Steel Metallurgy Executive and Transformational Quality Leader with 17+ years driving operations & quality excellence improvement across multi-plant integrated steel mills. Delivered 2% cost/ton reductⁿ, 96% final product yield (2% gain), 5% OEE, 10% fewer customer complaints & ₹0.47 Cr cost savings through 6σ, TQM, zero-defect systems & end-to-end laboratory commissioning. Directed QMS aligned to IATF 16949 & ISO 9001 with '0' major NCRs while advancing Industry 4.0 digitalization, supplier rejection reductⁿ of 15% & value-added product quality, customer retention. P&L-oriented leader with strong safety, positioned to lead large-scale steel operations toward higher competitiveness, operational discipline & long-term strategic growth.

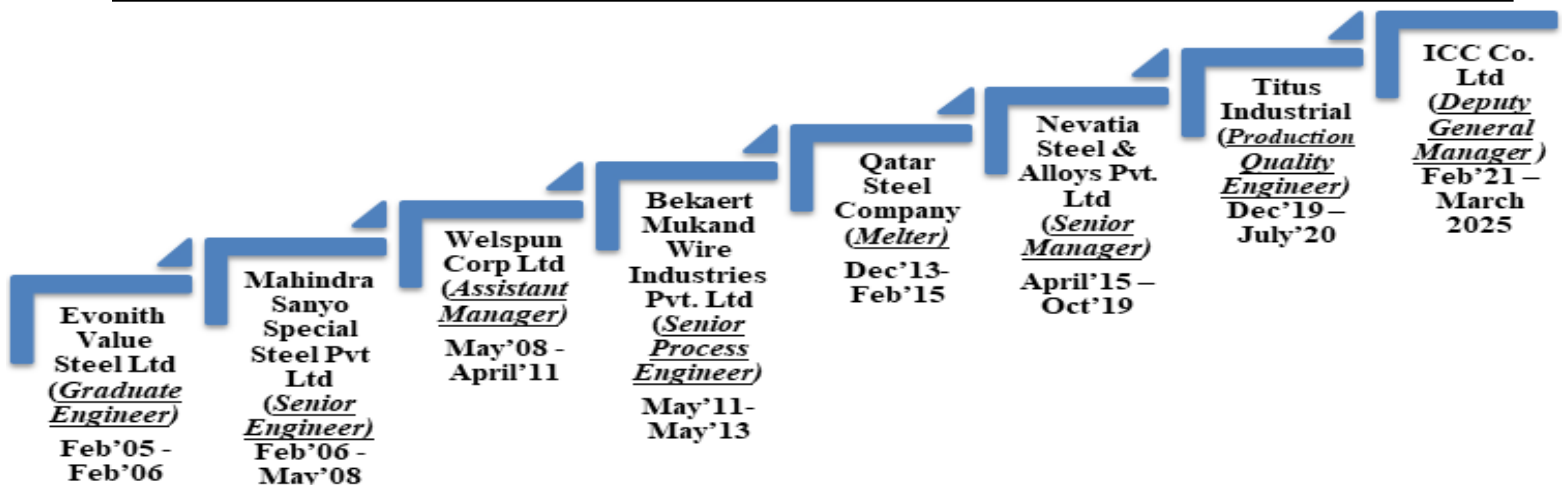
PROFESSIONAL SYNOPSIS:

Senior Metallurgical Quality Leader with 17.9 years across steel, stainless & downstream units (SMS, LSAW pipes, wire drawing, card-wire). Proven expertise in HT, alloy validation, mechanical property & microstructural optimization for specialty grades, steel grade chemistry setting, ensuring compliance with ISO 9001, IATF 16949 & OEM/API/ASTM/EN/BIS stds. Established advanced metallurgical labs with NDT/DT capability & analytics, process deviation control & driving stable process windows. Strengthened discipline process via RCA, failure analysis (CAPA), NPD, simulation & control-plan optimization, achieving higher FPY, audit readiness & customer satisfaction. Directed cross-functional teams & supplier QMS for enterprise-wide metallurgical governance. Formerly served as **DGM – Quality** at ICC Co. Ltd. (H.P.).

CORE COMPETENCIES– METALLURGY & QUALITY TRANSFORMATION:

- **Steel Making, H.T & Process Metallurgy:** SMS, advanced HT cycles (solution/spheroidize annealing, cryogenic HT) → 20% hardness gain, 15% decarb reductⁿ across HC steel/alloy/SS per IS/ASTM/EN.
- **Ferrous Metallurgical Process Optimization:** Optimized steel/alloy, & SS prodⁿ (EAF/LRF, CC/Ingots Casting, LSAW/HSAW pipes, cold-rolling/punching/flame hardening per BIS, EN, ASTM, ISO, API stds.
- **Quality Systems:** Architected ISO 9001, IATF 16949, ISO 14001, OHSAS 18001 → 25% NCR/ COPQ cut, executed APQP, PPAP, PFMEA, Control Plans, 15% rejection reduction, '0' major NCs.
- **Metallurgical Testing & Lab Leadership:** Established advanced metallurgical labs (UTM, PMI, NDT) & metallography per ASTM E45/E112 → 96% FPY, defect precise detectⁿ, 20min total testing time saved.
- **Lean Six Sigma, RCA & CI:** 8D, CAPA, Kaizen, Poka-Yoke → 18% efficiency gain, Cp/Cpk ≥1.33.
- **Supplier Quality:** RM inspection & regular audits → 15% rejection cut, ₹28L+ savings annually.

PROFESSIONAL CHRONOLOGY:



Key Responsibilities & Achievements:

- ✓ **Strategic Quality Leadership & Business Excellence:** i) Directed plant-wide QA/QC transformation, optimizing cold rolling, punching & flame hardening lines; achieved **25% defect reduction** & formalized, robust SPC & MSA practices, enabling to achieve & sustain $Cp/Cpk \geq 1.33$ for all vital characteristics, reflecting a major shift toward data-driven process capability. ii) **Redefined control plans, setup approvals & inspection stds** to ensure **100% ICC std, ISO 9001, BIS compliance**. iii) **Implemented HT, metallurgical governance & optimization** across Round/Flat/Card Wire, & '0' defect advancement.
- ✓ **Supplier RM Quality Development Leadership:** i) Strengthened supplier governance by designing & executing structured supplier audits, enhancing metallurgical capability, enforcing strict adherence to ICC specs, & elevating vendor performance/risk management & technical training, reducing supplier rejection by 15%. ii) **Drove supplier re-engg. & metallurgical CAPA** resolving chronic RM nonconformities for grade C-60, C-70, SAE 52100, 83WV3; delivered **₹10 L/year** in cost efficiencies. iii) **Ensured metallurgical & mechanical RM conformance** through 8D, & specification-driven inspections. iv) Institutionalized RM certification protocols through rigorous incoming mtl verification using advanced chemical analysis (C, S), ensuring compliance with international metallurgical stds & strengthening supply chain resilience.
- ✓ **Process Compliance & Continuous Improvement Institutionalization:** i) Established governance frameworks that elevated process discipline, strengthened risk management, and ensured sustainable alignment with international standards, positioning the organization for global competitiveness. ii) **Standardized cold rolling, punching & flame hardening processes** using data-driven audits → minimized deviations, improved process reliability, and started FPI, IPI & LPI practice in every process. iii) **Integrated Industry 4.0 inspection & SPC visibility**, improving traceability & lowering COPQ iv) Led weekly cross-functional meetings with plant teams to rapidly address & resolve customer complaints. v) Governed metallurgical integrity across product lines by defining, validating, & institutionalizing HT parameters for annealing, hardening, & tempering, embedding repeatability, reliability into production.
- ✓ **QMS Governance:** i) Principal Custodian of QMS Governance: Directed and safeguarded ISO 9001:2015 implementation, ensuring documentation integrity, audit readiness, and compliance across all operations. ii) Single-Point Quality Leadership: Acted as the focal authority for QMS initiatives, driving deployment, monitoring, and continual improvement across plant operations, embedding a culture of excellence. iii) Audit & Compliance Leadership: Core member of the Internal Audit Team; orchestrated compliance programs with ISO 9001:2015 and customer-specific systems, reinforcing organizational credibility and trust.
- ✓ **Customer Quality Integration & Field Failure Leadership:** i) Spearheaded the end-to-end customer quality & field-failure cycle, owning complaint, metallurgical structured RCA, cross-functional containment, and CAPA validation. ii) Reduced customer complaints by **15%** using structured problem-solving (8D, Fishbone, 5-Why) & data-driven metallurgical analysis. iii) Led customer audits & global quality reviews with **100% compliance** to customer-specific requirements, strengthening customer confidence and retention. iv) Resolved complex field failures by aligning corrective actions with design metallurgy, heat-treatment parameters, and mechanical property requirements to ensure long-term reliability and zero recurrence.
- ✓ **COPQ Elimination & Final Product Yield (FPY) Architect:** Conducted comprehensive internal rejection analyses for in-process/final (FG) products & led process-level corrective & preventive actions. Addressed all issues with the plant team in weekly reviews to drive immediate root-cause elimination, significantly reducing both in-process and final rejections as well as recurrence of deviation.
- ✓ **Innovation, Kaizen & Operational Efficiency:** i) **Introduced flame-hardening gas flow meters & upgraded quenching oil** → improved hardness uniformity (**from 85% to 96%**) & reduced HT variation (**5%**). ii) **Implemented MPI for weld integrity** & enhanced micro-hardness testing → increased metallurgical reliability. iii) **Deployed visual management** enabling real-time quality decisions.
- ✓ **Safety, Sustainability & Team Development:** i) **Mentored QA/QC teams (15+)** via structured programs (SPC, MSA, 7QC, CAPA, Customer complaints) improving technical competency (from 1 star to 4 star level **improvement**). ii) Spearheaded the annual November Quality Month, driving organization-wide engagement through Best Kaizen awards, poster/slogan contests, quality quizzes, and cross-functional workshops—significantly strengthening the culture of quality, innovation, and employee involvement.

- ✓ **Established state-of-the-art metallurgical & quality lab:** i) Architected and commissioned advanced metallurgical infrastructure by leading the selection, specification, & deployment of critical equipment, enabling enterprise-wide precision in heat treatment, chemical analysis, & microstructural evaluation aligned with global best practices. ii) Built a world-class metallurgical and quality laboratory by leading a full technological upgrade—integrating Strohlein C&S analyzers, viscosity and titration systems, pH and torque tools, upgraded micro-hardness and digital microscopy platforms, MPI for weld integrity, Fujifilm Prescale for roll-pressure mapping, thermal imaging, and environmental monitoring—establishing a precision testing ecosystem that advanced analytical accuracy, product quality assurance, & global competitiveness.
- ✓ **Cross-Functional & Strategic Partnerships:** Engaged leadership to align metallurgical innovation, process control, & quality governance with organizational growth, sustainability, & global competitiveness.

❖ **Titus Industrial-Rajkot India (Dallas USA)-Supplier location** **Dec'2019 – July'2020**
Production Quality Engineer (SQM Department) **Team size directed: 3nos. people**

Key Responsibilities & Achievements:

- ✓ **Strategic Quality Leadership:** Directed & optimized supplier-site quality operations for carbon steel (e.g. ASTM A 234-17 Gr.WPB) pipe fittings with Normalized heat treated products i.e. forged flanges/fittings, butt weld fittings, reducers, TEE, hot induction bends, fasteners, spools, pipes, elbow, etc. Steering a cross-functional team to execute prodⁿ & inspection activities aligned with global stds. Strategically deployed manpower across multi-location suppliers, ensuring end-to-end control of process & product quality.
- ✓ **Project Governance & Compliance Assurance:** Interpreted Titus PO requirements & translated them into actionable quality execution plans. Led due-diligence & multi-stage process audits across Mill Material, In-process, Final Inspection, securing full compliance with ASTM, ISO, & customer-specific benchmarks.
- ✓ **Cross-Functional Collaboration:** Served as the single communication bridge between suppliers, third-party labs, and internal stakeholders, supervising OES, mechanical, and chemical testing and ensuring full traceability by validating and uploading FMTR reports into Oracle NetSuite for management review.
- ✓ **Technical Excellence & CAPA Deployment:** Partnered with the U.S. Engineering (R&D) team and Indian laboratories to resolve pre-production and production-stage quality deviations. Led after-sales failure investigations, executing data-driven root-cause analysis and implementing CAPA to eliminate recurrence.
- ✓ **Process Standardization & Knowledge Systems:** Authored and institutionalized SOPs to standardize inspection, testing, and documentation practices across supplier units. Delivered technical support to product development initiatives and maintained transparent communication with the Global Supplier Quality Director, Procurement, and Logistics to proactively mitigate quality or compliance risks.

❖ **Nevatia Steel & Alloys Pvt. Ltd., Tarapur-MIDC** **April'2015 – Oct'2019**
Senior Manager (Quality Assurance Department) **Team size directed: 17nos. people**

Key Responsibilities & Achievements:

- ✓ **Strategic Quality Leadership & Metallurgical Excellence:** Directed QA & metallurgical functions across two plants; established IS 228 wet-chemical lab & sustained a '0' defect & accident record. Implemented MSA/SPC based controls in Stainless Steel (200,300 & 400 series) Solution annealing, Pickling, Rinsing, Coating, Dry/wet wire drawing, strand annealing & 10% efficiency gain. Developed metallurgical specs, SOPs, QAP as per ISO 16949, ASTM, EN, & Cust. Specific stds, ensuring full adherence & audit readiness.
- ✓ **Supplier Quality & Cost Optimization:** Enhanced supplier quality through audits and metallurgical reviews, securing RM compliance. Redesigned packing and introduced in-house PMI testing, cutting costs by ₹11.6 L + ₹5–6 L annually and ₹1.87 L lab savings. Strengthened incoming inspection via SOP-based checks and supplier feedback, improving reliability and eliminating quality escapes.
- ✓ **New Product & Process Development & Customer Quality:** Led APQP/PPAP for new products, ensuring flawless design-to-prodⁿ transitions & metallurgical integrity. Started hot water rinsing in wire rod.
- ✓ **Customer Quality Governance, Reliability Engg. & '0'-Defect Performance:** Orchestrated customer quality excellence by collaborating with key customers on feasibility, QAP development, and metallurgical

validation, and by leading structured 8D/7QC/5-Why/PFMEA-based complaint investigations that enabled zero-defect performance, strengthened reliability, institutionalized CAPA-driven systemic improvements, and delivered sustained long-term customer confidence and satisfaction.

- ✓ **Quality Culture Transformation, Innovation Leadership & Enterprise Continuous Improvement:** Drove Quality Month (2015–2018) & Championed operational excellence through Kaizen, visual defect systems, attribute MSA deployment, & innovative testing/process enhancements (e.g., 17/7 pH mandrel development, modified wrap-test m/cs, UTM speed standardized), improving m/c uptime & lab accuracy.
- ✓ **Operational Governance, Audits & Documentation:** Supervised in-process & final inspections (chemical, mechanical, dimensional, s/f) to ensure conformity. Issued EN 10204-3.1 test certificates with full docⁿ control. Led internal, supplier, & cust. audits, presented KPIs in MRC, & ongoing 100% QMS compliance.
- ✓ **Safety, Environment & 5S Implementation:** Championed safety-conscious culture and continuous improvement initiatives resulting in zero lost-time incidents. Sustainability in QA systems by updating HIRA and Aspect-Impact registers, monitoring ETP effluent, and maintaining zero accidents. Implemented 5S across labs, enhancing operational discipline, cleanliness, and efficiency.

❖ **Qatar Steel Company, Qatar country**

Dec'2013- Feb'2015

Melter: SIEMENS VAI-EAF (Capacity-100MT) (Steel Making Department)

Key Responsibilities & Achievements:

- ✓ **Directed end-to-end EAF steelmaking** for Low-‘C’ grades (ASTM A615 & A706 Gr.60/75/80), governing scrap charging, melting, refining, sampling, EBT tapping, & real-time inspections while identifying abnormalities & executing corrective actions to maintain quality, safety & uninterrupted f/c performance.
- ✓ **Institutionalized disciplined**, metallurgically sound melting practices that consistently delivered record heat-tapping rates i.e. 12 heats in 8hrs & surpassed production targets, boosting throughput reliability.
- ✓ **Supported Furnace In-Charge** through dynamic/strategic resource planning of consumables, raw materials, and heat sequences, coordinated shutdowns, shell removal/replacement with zero incidents.
- ✓ **Engineered an EBT sand-storage modification** that reduced tapping cycle time by 3 minutes, maintained comprehensive production logs and analytical reports for management reviews, and was recognized for driving process optimization, operational reliability, safety discipline, higher yield, and reduced downtime.

❖ **Bekaert Mukand Wire Industries Pvt. Ltd., Lonand-MIDC**

May'2011- May'2013

Senior Process Engineer (Technical Department)

Team size directed: 4nos. people

❖ **N V Bekaert SA., Belgium country (Abroad Training)**

Sept'11- Aug'12

Senior Process Engineer (Technical Department)

Key Responsibilities & Achievements:

- ✓ **Spearheaded M/c development initiatives in Belgium**, developing Long Bearing Length Pressure Die & drive SS wire process & product quality improvements in collaboration with the Belgium Tech Center.
- ✓ **Led Kaizen for B m/c projects** by resolving wire entanglement scrap by 5% through payoff dischargers, standardizing speed/load charts to accelerate production cycles, strengthen quality consistency.
- ✓ **Advanced metallurgical integrity & testing excellence**, installing Online Eddy-Current testing during wire drawing, conducting metallographic examinations of SS wire, & ensuring defect-free outputs.
- ✓ **Collaborated with Bekaert Technology Center (Belgium)** to drive process & product improvements; presented project KPIs to top management, enabling data-driven decisions and reinforcing competitiveness.
- ✓ **Optimized resource utilization & cost efficiency**, implementing O&M cost-saving techniques, preparing job cards, & ensuring consistent product quality, sustained uninterrupted production.

Earlier Experience (2005–2011)

Graduate Engineer → Assistant Manager | Evonith Value Steel (Formerly: Lloyds Steel) | Sanyo Special Steel (Formerly: MUSCO) | Welspun Corp Ltd.

- ✓ Led **quality assurance, process control, and metallurgical testing** across EAF, LRF, CC, HRM, and pipe manufacturing in compliance with **ASTM, EN, BS, DIN, and API 5L** standards.
- ✓ Executed **mechanical/metallurgical testing** (tensile, impact, hardness, grain size, inclusion rating, microstructure) ensuring full ISO/ASTM conformance.
- ✓ Controlled **process deviations** through audits & inspections, enhancing metallurgical consistency by collaborating with cross-functional team to resolve technical issues and eliminating nonconformities & ensure **cost-effective, metallurgical sound solutions**.
- ✓ Achieved **20% UT rejection reduction**, managed and executed Continuous Improvement projects focused on **scrap reduction** and eliminating **casting defects**, applying systematic **Root Cause Analysis** methods (**5 Why, Fishbone**) and **CAPA Management Tools**.
- ✓ Developed **BP mould segregation & polishing methods**, minimized defects & saved ingots s/f defects.
- ✓ Authored QAPs, RMTS, and MPS for global clients, meticulously specifying **Carbon Equivalent (CE)** limits for **LSAW pipe steel selection (PSL 1 & PSL 2)**, securing domestic & international order approvals.
- ✓ Built **e-Library & 5S filing systems** for stds & created **monthly process reports** for management review.
- ✓ Facilitated **client meetings, interplant coordination, and QA training programs**, driving operational excellence and compliance culture.

CAREER ACCOMPLISHMENTS:

- 1) **Cost Leadership, Profitability & Global Sourcing Optimization:** Delivered **₹0.47 Cr** annual savings by optimizing wire-rod sourcing, re-engineering packaging, institutionalizing in-house PMI/metallurgical testing, and reducing lab material, testing & NABL calibration costs; additionally achieved €700–€800 p.a. savings in Europe through strategic vendor negotiations and localized sourcing.
- 2) **Customer Excellence, Complaint Reduction & Zero-Defect Systems:** Achieved **10% reduction in customer complaints and field failures** through a multi-pronged strategy anchored in zero-defect systems and quality governance: i) **Root Cause Mastery:** Strengthened 8D, Fishbone, 5-Why, PFMEA, CAPA, and QAP frameworks to institutionalize failure prevention. ii) **Process Reengineering:** Redesigned critical process flows; modified and installed new machines, equipment, and inspection gauges to eliminate defect pathways. iii) **Quality Gate Intensification:** Implemented rigorous quality checks at every stage; added mandatory audit parameters and increased audit frequency. iv) **Defect Intelligence:** Introduced sample preservation protocols and systematic s/f-defect evaluations to enhance traceability and forensic analysis. v) **Teamwide Complaint Awareness:** Educated plant teams on complaint psychology and customer impact, embedding a culture of proactive ownership. vi) **Benchmarking & MSA Precision:** Conducted competitive benchmarking and deployed visual-attribute MSA and soap-residue quantification for surface quality assurance. vii) **Governance Impact:** Delivered **98.5% first-time approvals**, reinforcing long-term customer confidence and institutional credibility.
- 3) **Supplier Quality, QMS Audit Governance & '0' Non-Conformances:** Directed supplier-quality excellence using rigorous supplier audits, 15% supplier rejection reduction. RM metallurgical validation, vendor capability development, & enhanced inspection systems. Achieving benchmark conformance.
- 4) **Metallurgical Innovation, Testing Excellence & Laboratory Modernization:** Engineered next-generation metallurgical capabilities—computerized tensile/micro-hardness systems, automated calibration/MSA, wet-chemical lab upgrades, decarb measurement, MPI for weld integrity, Baume hydrometer density accuracy, and digital SOPs—ensuring precision, repeatability, and data integrity.
- 5) **Kaizen, Lean Transformation & Process Reliability Improvements:** Spearheaded Kaizen/Lean improvements including precision gas-flow meters, discharger redesign for entanglement scrap reduction, machine-speed optimization, lubrication system innovation (Belgium), wrap/bend test m/c upgrades, 20% yield improved & Poka-Yoke systems—elevating throughput reliability, uptime, and metallurgical stability.
- 6) **Heat Treatment, Surface Hardening & Product Quality Enhancement:** Modernized heat-treatment and surface-hardening operations through burner upgrades, quench-uniformity controls, and flow-meter

instrumentation—20% hardness uniformity gain, 96% FPY, scrap reduction, reducing entanglement scrap by 18%, and improving quench reliability, dimensional accuracy, and overall metallurgical performance.

- 7) **QMS, Documentation Excellence & Plant-Wide Governance Systems:** Strengthened QMS governance by developing/standardizing SOPs, PFMEA, SPC, MSA, inspection formats, checklists, conflict-mineral and RoHS documentation, calibration regimes, and digital labelling—enhancing traceability, compliance, and multi-plant audit readiness. Led department-wise audit execution via robust checklists & schedules, ensuring zero major NCRs across ISO 9001, ISO 45001, IATF 16949 recertification & surveillance audits.
- 8) **Safety, 5S, Sustainability & People Development Leadership:** Championed EHS excellence with updated HIRA/Aspect-Impact/SMP-EMP systems, REACH/ RoHS compliance, 5S deployment, '0'-accident culture, forklift safety systems, PPE-based lab safeguards, & first-aid readiness; mentored 100+ employees through competency frameworks, Metallurgy, 8D, 7QC, MSA/Gage R&R training, Quality Month celebration started & ISO/IATF auditor development.

ACADEMIC CREDENTIALS:

- B.E. in Metallurgical Engineering from Govt. College of Engineering (COEP), Pune, secured 64.13% in 2004.
- Diploma in Metallurgical Engineering from Govt. Polytechnic (GPP), Pune, secured 78.60% in 2001.
- 10th from Shree Gopal High School, Pune, secured 70.80% in 1998.

CERTIFICATIONS AND TRAINING:

- Advanced Generative AI & Industrial Productivity Systems (2026-2027)
- QMS Internal Auditor (IATF 16949:2016, ISO 9001:2015, ISO 14001:2015 & OHSAS 18001:2007) Certification: Bureau Veritas (BV); S Cube Annotech & Kirthi Consultants
- Magnetic Particle Testing (MT) Level II & Ultrasonic Testing (UT) Level II Certification: IQS Services
- Lean Six Sigma Green Belt- Bekaert (Belgium)
- Eddy Current Testing (SS Wire) & Die shop: Reworking of TC/ND/PCD – Bekaert (Belgium)
- Project Management for Technologists- Bekaert (Belgium)
- Systematic Problem Solving in Manufacturing-MIQ

INFORMATION TECHNOLOGY (IT) SKILLS:

- **Enterprise Systems:** SAP-QM, Oracle NetSuite, ERP, Zoho-CRM for customer complaint.
- **Quality Tools:** Minitab, SPC Software, CAPA Management Tools.
- **Productivity:** Microsoft Office 2024 (Word, Excel, PowerPoint, Outlook), MS Project.
- **Collaboration:** AI Tools, Slack, MS Teams, Zoom, Adobe Acrobat, PDF Editor, Photo/Video Editing.
- **AI-Enabled Industrial Intelligence & Digital Transformation (2025–2026):** i) Architected and deployed **custom GPT workflows** for metallurgical scientist and research level LinkedIn post including RCA, CAPA structuring, audit documentation, and standards interpretation support. ii) Developed AI-assisted **executive dashboards, KPI visualizations, board-level presentations, and digital reporting frameworks** for yield, COPQ, and process capability analytics. iii) Engineered AI-supported **SOP drafting, PFMEA refinement, and structured 8D investigation models**, reducing documentation cycle time and improving governance clarity. iv) Created professional **technical videos, infographics, & knowledge assets** to strengthen quality culture & published various scientific technical post in LinkedIn. v) Applied Generative AI for **data summarization, trend analysis, & operational decision acceleration** aligned with Industry 4.0 objectives.

AWARDS & EXTRACURRICULAR ACTIVITIES:

- Yearly Awarded by Scholarship from “Alegaonkar trust & Sir Ratan Tata trust” in School & Engg. College.
- Successfully led & organized the “Quality Month” celebration program from 2015 to 2024.
- Won the prize in the Bumper round of the “Executive Talent Search competition” organized by the TMA Boisar.
- Enthusiastically played adventurous sports like Bungee jumping, Paragliding, River rafting, Kayaking, Trekking, Zip lining, climbing walls, Riding the ropeway line, Rappelling sports, etc.