

MUHAMMAD ARIF

(General Manager Plant, Quality & Optimization)

PhD, CEng, PMP, Lean Six Sigma Blackbelt, TQMP NEBOSH-IGC MIMechE

PROFILE

Dynamic heavy manufacturing and operations leader with 15+ years of multinational experience leading large-scale industrial operations, manufacturing excellence initiatives, quality systems, industrialization of new technologies, and manufacturing transformation projects across diverse and advanced engineering industries. Demonstrated success in driving productivity, cost optimization, lean manufacturing, operational excellence, capacity expansion, quality enhancement, and cross-functional leadership throughout supply chain in complex manufacturing environments. Proven ability to lead multicultural teams, manage strategic stakeholder relationships, and execute business-critical initiatives within multinational, cross functional, and matrix organizations.

CONTACT

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CERTIFICATIONS

- Lean Six Sigma Black Belt
- Project Management Professional
- Chartered Engineer (CEng)
- NDT Radiography Testing (RT) ASNT Level II.
- NEBOSH –International General Certificate (IGC) in Occupational Health and Safety
- Total Quality Management Professional (TQMP)

TECH COMPETENCIES

- Sand and Shell Metal casting
- Non-Destructive Testing (NDT)
- Machining , Welding/Joining
- Heat Treatment (quench/tempering, case-hardening, specialized HTs)
- Repair Technologies (laser cladding)
- Metallography
- Health, Safety, & Environment
- Fracture Analysis
- Grinding/Finishing
- Surface Treatment (Blackening, OSRO, Vibro-peening, vibro-finishing)

EDUCATION

2011- PhD Mechanical Engineering – National University of Singapore, Singapore

2004- BSc Industrial & Manufacturing Engineering – University of Engineering and Technology Lahore, Pakistan.

WORK EXPERIENCE

1. **General Manager Plant** – **Chenab Engineering Works & Foundries**, Faisalabad, Pakistan. **[November 2022 – Present]**

Key Responsibilities

- Lead overall factory operations across R&D, Production, Quality, Optimization, Engineering, Supply Chain coordination, HSE, Operational Excellence, and workforce management.
- Resolve complex manufacturing problems in foundry processes including casting, heat treatment, NDT, welding/repair technologies, surface and subsurface treatments, and grinding/machining.
- Implement and monitor KPIs (Productivity, Quality, Safety, Delivery, Cost, Maintenance, Inventory, Environment, People)
- Leading components manufacturing initiatives for various models of agriculture tractors
- Drive strategic manufacturing initiatives focused on productivity, lean, quality, cost optimization, operational reliability, and customer satisfaction.
- Lead annual operational planning, budgeting, resource allocation, and execution of plant performance targets.
- Ensure compliance with quality, safety, environmental, and regulatory standards.
- Develop high-performance teams through coaching, succession planning, employee engagement, and continuous performance management.
- Develop an eco-system for collaboration with customers, suppliers, regulatory authorities, academia/R&D and industry stakeholders to ensure operational continuity and business growth.

Key Achievements

- Increased plant productivity by 15% through Lean Manufacturing, 5S, and operational excellence initiatives.
- Reduced production costs by 12% through process optimization and resource efficiency improvements.
- Reduced downtime by 10% through improved production scheduling and maintenance coordination.
- Led a 15% plant capacity expansion project completed within approved timelines and budget.
- Improved manufacturing cycle efficiency by 18% through implementation of advanced manufacturing technologies.
- Implemented a Computerized Maintenance Management System (CMMS).
- Reduced plant downtime by 40% through reliability-center maintenance approach.

CORE COMPETENCIES

- Plant General Management
- Manufacturing Operations
- Operational Excellence
- Lean Manufacturing & Six Sigma
- Supply Chain Coordination
- QSE / HSE Leadership (ISO 45001)
- Strategic Planning
- Cost Optimization & Productivity
- Continuous Improvement
- Change Management
- Stakeholder Management
- Industrialization of new Tech
- Quality Systems (ISO 9001
- Team Leadership Development
- CAPEX Projects
- Regulatory Compliance

• INTERNATIONAL AWARDS

- Young Researcher Award by the Asian Society for Precision Engineering & Nanotechnology (ASPEN)
- Haidenhain Award by the European Society for Precision Engineering & Nanotechnology (EUSPEN)

• PROFESSIONAL COURSES

- Occupational, Health & Safety (OHS)
- Circular Economy
- Design for Six-Sigma

TRAINING SERVICES FOR INDUSTRY

- Lean Six Sigma.
- Global Eight Disciplines (8D) Problem solving methodology.
- Statistical Quality Control Tools and Techniques.
- Advanced Quality Planning and Management Tools.
- Total Quality Management.
- Total Productive Maintenance.
- Manufacturing & Supply Chain Processes.

CONSULTANCY SERVICES

- Various stakeholders through the Faisalabad Chamber of Commerce & Industry, Pakistan.

- Maintained zero-incident safety performance for 12 consecutive months through strong QSE and HSE leadership.
- Developed cross-functional leadership culture and strengthened workforce capability through structured coaching and employee development initiatives.
- Successfully achieved ISO 9001, 14001, and 45001 certifications for the company.
- Established export customer base for the company products and diversified the product portfolio for the company.

2. **Lead Engineer Program Management**– General Electric Power, Baden, **Switzerland**. **[March 2015 – September 2017]**

- Lead a program for turbine blade manufacturing projects across GE factories in Europe (Switzerland, Germany and Poland).
- Modeling and optimization of mechanical machining, heat treatment and assembly processes.
- Drove lean manufacturing and digital manufacturing initiatives.
- Developed quality control plans to solve quality problems in manufacturing.
- Industrialized newly developed manufacturing processes & systems.
- Performed pilot runs for industrial demos in plants & conducted process audits.
- Collaborated with universities/institutes and OEMs to launch joint projects.
- Led and managed cross functional team of engineers and technologists.

3. **Project Manager/Work-package Manager** – Swiss Federal Institute of Technology Lausanne, **Switzerland**. **[May 2012 – Feb 2015]**

- Work-Package Manager and Exploitation & Dissemination Manager for the European Commission's FP7 Programme Project 'IFaCOM' — a large, matrixed international research and industrial consortium.
- Planned, supervised, and reported on complex technical and financial milestones for R&D projects in collaboration with major European manufacturers and academic institutions.
- Developed precision manufacturing systems in partnership with machine tool, automotive, and aerospace OEMs, with exposure to supply chain, R&D, and account management functions.
- Industrialization of newly developed technologies

4. **R&D Scientist** – Singapore Institute of Manufacturing Technology, Singapore. **[Oct 2011 – Apr 2012]**

- Conducted a feasibility study on automated remanufacturing of damaged aerospace components for ***Rolls-Royce Singapore***, gaining exposure to multinational supply chain and quality frameworks (a project of **Rolls-Royce Singapore**).

5. **Associate Professor** – NFC Institute of Engineering, Faisalabad, Pakistan. **[Jul 2019 – Oct 2022]**

- Developed and delivered graduate and undergraduate engineering programmes; advised Master's theses and senior design projects in collaboration with industry partners.
- Built industrial-academia linkages, delivering training services (Lean Six Sigma, TPM, SQC, 8D Problem Solving) to industry through the Faisalabad Chamber of Commerce.

6. **Assistant Manager Technical –** Maritime Technologies Complex, Islamabad, Pakistan. **[Feb 2005 – Dec 2007]**

- Assist in overseeing the technical aspects of marine parts production.

LANGUAGES

- English - Professional proficiency
- Urdu, Punjabi – Native

SOFTWARE SKILLS

- Microsoft Office Suite
- MiniTAB
- SPC

CULTURE DIVERSITY

Collaborated with companies including:

- Rolls-Royce Singapore
- GKN Aerospace, Norway
- GF Machining Solutions
- CADCAMation, GF Machining Solution, Switzerland
- Fraunhofer, RWTH Aachen, Germany
- Strecon, Denmark
- ALESAMONTI, Italy
- VibraFinish, Canada
- EMA, Italy

OTHER LEADERSHIP ROLES

- Work-package Manager, European Commission's Project 'IFaCOM' FP7-2011-NMP-ICT-FoF (May 2012 – March 2015) EPFL, Switzerland.

- Exploitation & Dissemination Manager, European Commission's Project 'IFaCOM' FP7-2011. (September 2012 – March 2015), EPFL, Switzerland.

- Support the implementation of production processes and technologies.
- Monitor equipment performance and assist in maintenance planning.
- Ensure adherence to quality standards and safety protocols.
- Troubleshoot technical issues in production and provide solutions.
- Collaborate with engineering and production teams to optimize processes.
- Contribute to continuous improvement initiatives and efficiency enhancements.
- Assist in managing technical projects and timelines.

SUMMARY OF KEY QUALIFICATIONS

- Multinational experience – Switzerland, Singapore, Europe, Pakistan
- Full plant technical and HSE responsibility/ownership
- Versatile steel manufacturing/casting experience
- IMS compliance - ISO 9001, 14001 & 45001 compliance
- Lean Manufacturing / Operational Excellence / 5S / TPM
- People & Culture: coaching, performance management, talent pipeline.
- Stakeholder management – regulatory authorities & international partners
- Capacity expansion & capital project execution (on time, on budget)
- 15+ years manufacturing excellence experience
- Strategic planning in matrixed, compliance-driven organizations.
- Proven success in driving business performance, operational improvement, and organizational change.
- Cross-functional expertise in supply chain, R&D, finance, and stakeholder management.