Om Karthik Reddy V

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Education

Northeastern University — Boston, MA, USA
Master of Science in Industrial Engineering, College of Engineering — May 2024
Graduate Certificate in Supply Chain Management, D'Amore McKim School of Business — May 2024

Vellore Institute of Technology — Vellore, TN, India
Bachelor of Technology in Mechanical and Industrial Design — May 2022

Relevant Coursework: Six Sigma, Quality Engineering, TQM, Operations Research, Deterministic Optimization, Thermal & Fluid Systems (Thermodynamics, Heat Transfer, Fluid Mechanics), Manufacturing Processes, Engineering Drawing, CAD/CAM, Lean Engineering, Facilities & Process Planning, Robotic Programming, Systems Engineering, Automotive Production Systems

Skill

Programming & Data Tools:Python, Power BI, MATLAB/Simulink, NI VeriStand, CANalyzer, INCA, MDA, Microsoft Office Suite (Word, Excel, PowerPoint)
Design & Modeling Software: SolidWorks, AutoCAD, CATIA, FUSION 360
Engineering Principles: GD&T, DFMEA/DFM/DFA/DFS, Functional Safety
Validation : HIL Validation, Controls Validation, PLC Validation, Fault Injection, DTC Analysis
Supply Chain & Operations: Inventory Management, Demand Forecasting, Procurement, Strategic Negotiation, SAP, MRP, Logistics Optimization, JIT, JIS, Manufacturing Automation, BOM, Production Scheduling
Process Improvement & Optimization: Lean Manufacturing, Six Sigma, Kaizen, TQM, 5S, MUDA Analysis, Line Balancing, Workflow Analysis, Bottleneck Identification, Takt Time Calculation, Efficiency Improvement, Time & Motion Study (MOST), Cost Modeling, Should Cost Analysis
Visualization & Analysis: Tableau, Statistical Analysis, Root Cause Analysis (RCA), DMAIC, Value Stream Mapping (VSM)

Experience

Supplier Quality Engineer | Mahindra and Mahindra, Assembly Plant, Zaheerabad, Hyd. — Jan 2022 – Jun 2022
- Developed and maintained 3D models and 2D drawings for mechanical components using CATIA, applying GD&T standards to ensure manufacturing precision.
- Coordinated with the testing and validation team to develop test plans and evaluate prototype performance against design specifications and quality benchmarks.
- Collaborated with manufacturing and supplier quality teams to ensure design for manufacturability (DFM) and resolve technical queries during production ramp-up.
- Systematized engineering change notices (ECNs) and updated the Bill of Materials (BOM) to ensure all design revisions were accurately documented and communicated.

Manufacturing & Supplier Quality Engineer | Satya Surya Aluminum Industries Ltd, Hyd. — Mar 2021 – Dec 2021
- Investigated supplier issues, reducing defect rates by analyzing trends with Six Sigma, SPC, and FMEA tools
- Installed proximity sensors on critical stations to prevent reverse-fit assembly errors (defect can't flow)
- Partnered with cross-functional teams to validate supplier data packages, perform drawing markups, and ensure documentation matched internal and customer standards

Process Improvement & Quality Engineer | ACE Laser Tubing, Bangalore, India — Apr 2020 – Feb 2021
- Facilitated process improvement teams providing Lean tools such as Pareto charts, process flow charts, A3 Reports, basic statistics, control charts, and Daily Work Management (DWM)
- Utilized SPC data to monitor the critical parameters and identify out of control conditions to stop and correct the machine
- Significantly reduced waste and end-to-end production time by leveraging expertise with Statistical Process Control (SPC) methodology, reduced machining defect rejection by closely monitoring the WIP
- Developed 3D layouts and fixture models in SolidWorks to support line upgrades and prototype evaluation, improving operator ergonomics and setup times

Certifications

Lean Six Sigma Green Belt (CSSC, 2024), **Procurement Professional Certificate** (CSCMP, 2024), **Product Design Engineer – Mechanical (SSC/Q4201)** (NASSCOM)

Projects

- **Supply Chain Network Optimization & Resilience Strategy** – Designed a cost-efficient supply chain by establishing a new distribution center, reducing inventory and transportation costs, and improving supplier diversification to boost profit margins by 15% during peak demand.
- **HIL Testing for Battery Management System** – Developed test cases, performed simulation modeling and automation using Simulink and NI VeriStand, and conducted safety compliance checks to ensure robust battery control logic validation.
- **Sensor Integration and Validation in Powertrain Systems** – Validated systems integrating sensors (temperature, pressure, encoder, resolver), ensuring signal accuracy and performance reliability across actuator modules under simulated test conditions.
- **Lean Manufacturing & Workflow Optimization in SME** – Implemented hybrid production methodology and root cause analysis, reducing equipment downtime by 14% and enhancing layout scalability in small-to-mid-size factory operations.