MANAS ASIJA

Quality Engineer | Manufacturing, Supplier & Field Quality | PFMEA, Control Plans, SPC, PPAP, MRB, 8D | Six Sigma Black Belt (DFSS)

(734) 368-0069 | masija@umich.edu | LinkedIn | Portfolio | Ann Arbor, MI | *Open to relocation & on-site work*

SUMMARY

Quality Engineer with 5 years in manufacturing, supplier, and field quality for automotive and EV/battery powertrain. Hands-on with **PFMEA, Control Plans, SPC, Cpk, PPAP/APQP, MRB dispositions, PCR review, traceability, 8D/RCA, and DOE** under IATF 16949 / ISO 9001. Led service teams across 14 dealerships and 41 sub-dealerships, and trained plant teams on Gemba walks and 8D; leads cross-functional work with Design, Manufacturing Engineering, Production, and Suppliers to triage manufacturing quality issues, reduce variation, and drive cost down.

PROFESSIONAL EXPERIENCE

FEV Consulting, Inc. **Jun 2026 – Present**
Engineering Consultant – Quality & Manufacturing *Auburn Hills, MI*

- **Hyundai Transys (Georgia, 8-speed transmission assembly line, 500K units/yr):** Led continuous improvement that raised **first pass yield (FPY) from 87% to 94%**; reviewed PFMEAs and closed gaps, replaced OK/NOK checks with **SPC control charts and process capability (Cpk)** to reduce variation, built a RASIC escalation path for line issues, traced failures by serial number to rework and EOL test, corrected SOPs, and **trained the team on Gemba walks and 8D**.
- **Wabtec (Komatsu):** Drove **COPQ reduction across the value stream** – supplier, internal, and field quality for electronic panels, castings, and brakes; reviewed **mechanical drawings** for castings and **wiring diagrams** for CBI, SHB, and PHB panels; analyzed **MRB dispositions (rework, scrap, RTV)** and reviewed **Process Change Requests (PCR)** (change management) to build quality metrics and a risk profile ranking top non-conforming parts, sizing a **$13M three-year COPQ** opportunity on the top part.
- **Amazon (next-gen delivery vehicle):** Planned a complete vehicle manufacturing line – supplier identification and **APQP/PPAP** review (PFMEA, Control Plans, inspection standards).
- **Amazon (Rivian EDV 700):** Generated **VAVE cost down** and sustainability ideas to cut accident-repair cost; built an executive dashboard with NPV/TCO business cases.
- **GM and Ford:** Built a **DFSS scorecard** for Bin 20 emission programs, comparing 3–4 engine packages across 100 technologies.

TVS Motor Company **Jun 2023 – Jul 2024**
Field Quality Engineer – EV Powertrain (NPI) *Hisar, India*

- Led component- and system-level **root cause analysis (8D, 5-Why, Ishikawa)** on early-life iQube EV **battery (HV pack), motor, and BMS** failures; used electrical measurement and data analysis with Design Engineering and suppliers to drive design validation and corrective design changes.
- Led field quality for **6 dealerships and 5 sub-dealerships**, coaching workshop managers, service advisors, and technicians; authored service bulletins and rework procedures.

Bajaj Auto Ltd. **Jan 2021 – Apr 2023**
Field Quality Engineer *Ranchi, India*

- Led field quality for **8 dealerships and 36 sub-dealerships**, managing workshop managers, service advisors, and technicians; troubleshot sensors/actuators with DTC and circuit checks, and applied DMAIC and Kaizen to lift quality KPIs **15–20%** (**Rank 1 of 109** territories in NPS growth).
- Reviewed the **throttle body assembly PPAP** and **GD&T** to isolate failing child parts and drove corrective action, cutting **throttle body warranty replacement cost 94% (∼$60K/month)** and raising first-time-fix rate.
- Built Power BI/QlikView dashboards tracking defect trends and warranty claims; directed TPM certification (process audits, Control Plans, PFMEA corrective actions) in an **IATF 16949** Quality Management System (QMS) – certifying **6 of 8 facilities** and cutting repeat field failures **20%**.

Tata Motors Ltd. **Jan 2019 – Jun 2019**
Manufacturing Engineering Intern – Engine & Powertrain Assembly *Pantnagar, India*

- **Created PFMEAs from scratch for a new assembly line**; investigated **275 oil-leakage cases** on automated sealing stations with SPC, Fishbone, and 5-Why, wrote work instructions and inspection standards, and audited the head-cover supplier to drive corrective action.

EDUCATION

University of Michigan, Ann Arbor – M.S., Mechanical Engineering **Aug 2024 – May 2026**
GPA: 4.00/4.00 | Coursework: Project Management, Design for Six Sigma, Smart Manufacturing *Ann Arbor, MI*

Thapar Institute of Engineering & Technology – B.E., Mechanical Engineering (ABET) **Jul 2016 – May 2020**
GPA: 9.44/10 (Top 3%) | 3.98/4 WES | Full-tuition merit scholarship *Patiala, India*

PROJECTS

- **DFSS Black Belt – Crashworthiness Optimization (UMich):** Applied IDDOV with a Taguchi L27 **Design of Experiments (DOE)**, reducing AIS 3+ injury probability from **96.8% to 24%**.
- **Quality tools:** Built interactive 8D and root cause analysis web tools (Portfolio); validating AI-generated SPC/DOE outputs against Minitab (CI Lens, UMich).

SKILLS & CERTIFICATIONS

Quality Systems:	PFMEA, DFMEA, Control Plans, PPAP, APQP, MRB (Rework, Scrap, RTV), Non-Conforming Material Control, Process Change Requests (PCR), Inspection Standards, Traceability, SOPs, QMS, IATF 16949
Problem Solving & Stats:	8D, Root Cause Analysis (RCA), CAPA, 5-Why, SPC / Control Charts, Cpk, FPY, DOE, GD&T, DFSS Scorecards, COPQ, Warranty Analysis
Data & Tools:	Minitab, Python, SQL, GCP BigQuery, Power BI, QlikView, MATLAB, Excel
Leadership:	Team Leadership, Coaching, Training, Project Management (Certified), Cross-functional Teams, Lean, Kaizen, Gemba Walks, VAVE, Six Sigma Black Belt (DFSS)