PARTH KOLTHARKAR

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EXPERIENCE

Manufacturing Engineering Intern — **Connecticut, USA**
HyAxiom - A Doosan Company — *Jun 2025 – Present*

- Reduced **rework and improved assembly accuracy** by designing a foolproof fixture and a Go/No-Go gauge to ensure correct Belleville washer stacking and prevent orientation errors
- **Improved process transparency and training efficiency** by mapping end-to-end Cell Stack Assembly workflows from raw material intake to final testing
- **Standardized assembly procedures and minimized errors** by developing detailed operation sheets for H-frame, pressure unit, and repeat/non-repeat stack assemblies

Manufacturing Engineer — **Thane, India**
Vertiv Energy Pvt Ltd. — *Jul 2023 – Apr 2024*

- **Reduced chiller assembly cycle time by 18%** through **value stream mapping** and **5S line balancing**, increasing throughput by 12% while eliminating 3 non-value-added steps
- **Cut wire harness defects by 22%** by implementing **error-proofing fixtures and updating FMEA controls,** improving first-pass yield to 98% and saving $10K annually in rework costs
- **Optimized spare part inventory by 30%** through **BOM standardization** and **ERP system implementation** while maintaining 95% part availability, freeing $50K in working capital
- **Optimized fan wall unit OEE by 18%** through **root cause analysis of downtime** by implementing predictive maintenance schedules, reducing changeover time by 25%
- **Reduced wire harness material costs by 15% by leading cross-functional collaboration with Design and Quality teams to consolidate 12 SKUs**, shortening procurement **lead time by 5 days**

Process Improvement Intern — **Mumbai, India**
Team Onyx India — *Sep 2021 – Jun 2022*

- Updated and streamlined the **Bill of Materials (BOM)** for **balsa wood and carbon-fiber RC wing kits**, reducing part misplacement during assembly by **25%** through categorized digital tracking
- Bridged communication between **design and fabrication teams** to resolve **propeller-balancing issues**, cutting vibration-related failures by **30%** in flight tests
- Modified **laser-cut plywood jigs** for fuselage alignment, reducing assembly errors by **15%** and saving **5 minutes per unit** in build time
- Reviewed **2D CAD drafts** for **landing gear mounts**, spotting **3 tolerance mismatches** that previously caused **10% of field failures**; corrected and validated changes in the next prototype

ACADEMIC PROJECTS

Cycle Time Estimation and Improvement | Project — *Nov 2024 – Dec 2024*

- **Reduced cycle times** by 10% by analysing and addressing bottlenecks in product flows, enhancing production efficiency
- Streamlined maintenance practices by optimizing **MTTR** and **MTTF**, improving operational reliability and workflow continuity
- Validated process modifications through cost-benefit analysis, supporting investments in automation that increased production throughput

Nexus Effect of Industry 4.0 and Circular Economy Practices in Achieving SDGs | Project — *Oct 2023 – Jun 2024*

- Applied Industry 4.0 and Circular Economy practices to decrease **GHG emissions,** using Pythagorean fuzzy methods to prioritize practices that resulted in a top performance metric enhancement by 18% in targeted manufacturing sectors
- Developed a systematic framework that integrated **Life Cycle Assessment** (LCA) principles, enhancing product **carbon footprint analysis** and contributing to a 22% improvement in **sustainability** compliance across evaluated industries

Simulation Modeling Application in Streamlining Industrial Operations | Project — *Jan 2023 – Jun 2023*

- Developed and implemented a **FlexSim** model to simulate the **industrial packaging process**, achieving a 15% reduction in processing times through **strategic workflow optimization**
- Identified and addressed critical **bottlenecks** in the simulation, resulting in potential annual **operational cost savings of 10%**, enhancing process efficiency

SKILLS

CAD/CAE: Solidworks, Creo Parametric, AutoCAD, CATIA, GD&T, ANSYS
PLM: Oracle ERP, Windchill
Data: MySQL, Python, R, Power BI, Tableau, MS Excel, Minitab
Manufacturing: Root Cause Analysis, Statistical Process Control, PFMEA, 5S, Value Stream Mapping, Six Sigma
Project Management: Agile, MS Project
Simulation: FlexSim

EDUCATION

North Carolina State University — **Raleigh, USA**
Masters of Engineering Management — *Aug 2024 – May 2026*

KJ Somaiya College of Engineering — **Mumbai, India**
Bachelor of Technology in Mechanical Engineering — *Aug 2019 – May 2023*
CGPA: 3.8/4