

SUMMARY

Over 2 years' professional experience specializing in Six Sigma, Lean and Kaizen strategies for optimizing Industrial and automated processes. Motivated to work in an environment where I can contribute towards a goal and see things to completion.

EDUCATION

University of Texas at Arlington- Master of Science- **Industrial Engineering**- GPA 3.4

May 2019

University of Mumbai- Bachelor of Engineering- **Instrumentation and controls**- GPA 3.5

May 2016

SKILLS AND AREAS OF EXPERTISE

Industrial: Lean Six Sigma, Cost Reduction, 5S, 5 Whys, Time Studies, Quality assurance and control, MRP, PFMEA, APQP, KAIZEN, PDCA, DOE, SPC, TPM, TQM, Root cause analysis, Fishbone analysis, Value stream mapping, Process improvement

Manufacturing: Instrument and system design, Advanced control system design, Process automation, Power electronics

Software: AutoCAD, SolidWorks, WITNESS, SAS, Simatic, MATLAB, Python, LabVIEW, Ladder logic programming

PROFESSIONAL EXPERIENCES

TRILOK CORPORATION- Production and controls engineer

Mumbai, India (Jun 2015 - Jun 2017)

- Led a team of automation, electrical and mechanical engineers for manufacturing a PLC-SCADA based **automated** de-aeration unit for **BPCL refinery (Govt. of India)**
- Produced **Mechanical and P&ID** drawings on **AutoCAD** for the dissolved oxygen removal process
- Executed quality improvement program by overseeing **PFMEA, TQM and maintaining ISO quality standards**
- Conducted **time study** of the manufacturing processes to reduce unnecessary movements and **increase** productivity by **15%**
- Reduced manufacturing **cost** by minimizing defects and non-value adding activities by **12%**
- Achieved **23% increase in efficiency** of the batch process for deaerating water (for boiler feed) by successfully combining mechanical and electrical systems and **fine tuning PID** for Water heater, Flow, Temperature, Vacuum and Level control loops
- Instituted **preventive maintenance schedule** ensuring optimal equipment operation without downtime
- Performed **FAT, SAT, on site commissioning** and produced **SOPs, user and maintenance manuals**

VELORQ ELECTRIC KITS- Co-founder

Mumbai, India (Jan 2016 - Jul 2017)

- Designed and built a DC motor based '**electric kit**' for special needs and multi-utility bikes
- Reduced **inventory cost** of electric motors by **33%** using demand-based (Pull) manufacturing technique like **Just-in-time**
- Optimized kit installation by preparing process charts and implementing **Kaizen methodology**
- Increased company **profits** by **12%** by incorporating **lean, continuous improvement and cost** control methods like eliminating waste, value stream mapping and project budgeting
- Increased **process efficiency** by **20%** by **simulating** the manufacturing process on **WITNESS**
- Instituted **Six sigma** and improved quality by **26%** and conducted **failure mode and effect analysis** of electric kits
- Performed **troubleshooting and diagnostic tests** of electronic components and mechanical tensioners ensuring **100% end user satisfaction**

ACADEMIC PROJECTS

OMRON LD autonomous robot

2018-2019

- Worked on **OMRON** based service robots and development of 100 kg **ROS based autonomous mobile robot (AMR)**
- Collaborated with ROS programming team to enhance **path planning, obstacle avoidance** and optimize PID values for motor control
- Developed maps, configured SICK lasers and fail safe parameters on **OMRON mobile planner software**
- Programmed and **interfaced Windows and Arduino** for operating doors, lights, sound and controlling the robot remotely through Wi-Fi

HYBRID ELECTRIC VEHICLE (HEV)- People's Choice Award (VJTI)

2015-2016

- Fabricated the concept of **Parallel Hybrid architecture** in a power scooter using a Brushless DC motor.
- Designed and constructed an **Electronic control unit (ECU)** for modulating throttle position using servo, actuation of clutch by taking feedback from wheel speed sensors (inductive) and signaling the Brushless DC motor controller.

PERSONAL TRANSPORT VEHICLE (PTV)- 1st Prize (MUMBAI UNIVERSITY)

2014

- Designed and fabricated the chassis, MOSFET based motor drive, and micro controller based motor speed controller.
- Developed and built a compact, portable electric vehicle that can be used for personal commute.