

CHINTALAPATI VENKATA SAI KISHAN

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EDUCATION

Texas A&M University, College Station, TX

Aug 2022 - Aug 2024

Master of Science in Industrial Engineering

VIT University, Vellore, India

Jul 2016 - Jun 2020

Bachelor of Technology in Mechanical Engineering

WORK EXPERIENCE

Tesla, Texas, USA

Aug 2023 - Dec 2023

Industrial Engineering Intern(Production Optimization)

- Utilized **Discrete Event Simulation** (DES) to model Cell Repack Assembly Line to optimize material flow and improve layout design using **AutoCAD (2D)** and enhance Line **OEE** (Overall Equipment Effectiveness) by **7.75%**.
- Performed **Line Balancing** for Cybertruck IP Subassembly Line through **Cycle Time Study** and improved station cycle time by **11%**.
- Conducted Buffer-Sensitivity Analysis and determined Inline **Buffer size** and determined Optimal Buffer Station Location for Front Fascia subassembly Manufacturing Line improving **OEE(%)** of the line by **3.8%**.
- Conducted work measurements and applied **MODAPTS** and **BASIC M.O.S.T** study to validate and enhance Cybertruck General Assembly Lift Assist Devices and achieved an 8% improvement in cycle time.
- Performed Indirect Labor Headcount Planning for Vehicle End-of-Line (EOL) Operations using **AutoCAD (2D)** to analyze various people flow paths and travel distances to calculate labor requirements for different production cycles and FPY(%).
- Collaborated with Manufacturing Engineers in developing and optimizing different Sub-Assembly Lines by analyzing throughput capabilities, bottlenecks, buffer sizing etc. through development of DES model in **FlexSim**.
- Collected, analyzed, and interpreted data on cycle times, throughput, and machine downtime (MTTR, MTBF) using **SQL** and **Excel**.

Dematic, Texas , USA

Jun 2023 - Aug 2023

Operations Research Intern

- Developed simulation model (in **Python- SimPy** Library) to model roller conveyors operations under various loading conditions.
- Performed Mathematical modeling to calculate power requirements for motor driven O-Ring roller type accumulation conveyors.
- Improved DMS Lift Operation and increased order retrieval rate by 5% through cycle time study and optimized picking strategy.

Adani Total Gas Limited, Karnataka, India

Oct 2020 - Jan 2022

Process Engineer

- Led Installation of 11 KM 3-LPE Coated Alloy Steel and MDPE Pipeline Infrastructure System for City Gas Distribution (CGD) enabling supply of PNG (Piped Natural Gas) and CNG to vehicles-CAPEX - \$5 Million for year 2020-2021.
- Collaborated with cross-functional teams and executed installation and commissioning of six CNG stations across Geographical Area, consisting of B.S. compressors, Cascades(4500WL),Decantation Panels, MCCB Panels, CNG dispensers (200bar).
- Implemented **SPC** system to monitor quality performance to improve capability by reducing process variations.
- Developed WI, Inspection check sheets and assisted quality team in developing Process flow, **PFMEA** and **Control Plan**.
- Conducted Root Cause Analysis (**RCA**) employing Fishbone and **A3 Methodology** to identify and address the gas leakage in booster Compressor. Implemented Corrective & Preventive actions (**CAPA**) and reduced gas leakage by **6%**.
- Developed **PM** Checklist for CNG Compressor to minimize unplanned downtime and improved **OEE Availability** by **9%**.
- Implemented **VSM** and **time study** analysis, reducing total lead time by 12.5% in an underground 3LPE steel pipeline laying project.
- Developed internal rework and repair standards to ensure product quality to ensure reliability of the welded pipe joints.
- Certified Measurement System Analysis (**Gage R&R**) to standardize the measurement systems in the PNG and CNG Projects.
- Handled store management through **SAP** - Inventory tracking, material procurement, quality assurance and vendor registration.

Oil and Natural Gas Corporation (ONGC), Andhra Pradesh, India

May 2019 - Jul 2019

Engineering Intern, Operations

- Collaborated with engineering teams for management in day-to-day operations of shop floor for mud-pump maintenance facility.
- Standardized and established documentation for data collection during overhauling process for A1700-PT & A1100-PT Triplex mud pumps enabling process traceability and reduced equipment repair time by improving visibility.

PROJECTS

Design Analysis and Optimization of Transmission System of an All-Terrain Vehicle (ATV) - BAJA SAE

Jan 2017 - Jan 2020

- Designed and optimized the transmission system of ATV for BAJA SAE using **SolidWorks (3D)**, enhancing durability and reliability.
- Used **MATLAB Simulink** to model and optimize CVT system, improving acceleration by 2% through fine-tuning gear and CVT ratio.

Personnel Planning Optimization for an Airline Company (Textbook Case Study) - Python, AMPL

Sep 2024 – Sep 2024

- Designed a hiring and training optimization model using AMPL-Python, incorporating training capacity constraints, workhour etc.

SKILLS

Manufacturing Skills: Statistical Process Control, DMAIC, Lean- 5S, Kaizen, 8D's,A3,5Why, Inventory Management, Capability Analysis, OOP, Optimization (Linear, Integer Programming), Discrete Event Simulation, Monte Carlo Simulation, MODAPTS Study, BASIC M.O.S.T.

Software Tools: SAP, Excel(Pivot table, VLOOKUP), AMPL, Python, C++, SolidWorks(3D), FlexSim, SIMUL8, SQL, Power BI,R Language, Minitab.