TEST ENGINEER

Professional Profile

Highly Motivated and Hardworking Automotive Engineer looking opportunities in the areas of Battery technology and Automotive industry. Willing to work for an organization where I can utilize my potential and educational skills and work in a team for the growth and development of the company. Around 2 year of experience in Design and Analysis of Experiments (DOE). *4 year of experience in creating Machine designs using Auto CAD (2D and 3D) for product specifications. *Hands on experience for 4years in Design Software's Auto CAD, Solid works, CATIA V5. *Strong understanding of Mechanical designs, CAD and Data Analysis. *Experienced in Finite Element Analysis (FEA) using MATLAB/Simulink, Abacus and Computational Fluid Dynamics(CFD). *Create Statistical Methods, and techniques for monitoring production and engineering processes and Number systems. *Experience in working with Bill of Materials(BOM's). *Experience in working with Automotive Component designs, Manufacturing Industry and Electronic Applications. *Strong ability to work in Team oriented environment and Independent. *Experienced in testing Li-ion and LI-S batteries and preparing solid and liquid electrolytes. *Experienced in working with Matlab/Simulink and Minitab for solving the problems. COURSES TAKEN Mechanics of Solids, Heat Transfer, Thermodynamics, Internal Combustion Engines, Theory of Elasticity, Mechanical Behavior of Materials, Finite Element Analysis, Kinematics and Dynamics of Machinery.

Qualifications

- Minitab 15
- Auto CAD 2014 (2D and 3D modeling)
- MS Office
- Impedance measurement
- Matlab
- CNC Machining(for 2D and 3D Auto CAD models)
- CATIA V5
- Solid works2015
- Hyper mesh and Abacus

Experience

August 2015
to
August 2016
Curtiss Wright Test Engineer

- Constructed Li-ion batteries and tested using multiple battery techniques like cycle test and load test to prove that battery efficiency will increase by parallel connection.
- Compared efficiencies of solid and liquid electrolytes in Li-ion battery.
- Tested Li-S batteries with different compositions of sulfur to identify the most efficient composition for increasing life span.
- Used thermal cycling method to test different solid electrolytes in Li-S batteries to increase battery efficiency.
- Tested six different compositions of electrodes using Z-plot and measured impedance to increase the life span of battery.
- The changes in the composition led to increased battery life span by 70%.
- Tested different solid electrolytes (stainless steel and Lithium as electrodes) using impedance measurement to identify the factors affecting the battery characteristics that include capacitance, inductance and resistance.

January 2015
to
May 2015
Salina Family Ymca Intern

- Construction of Seat Pad and Truck Packaging Material Studied the impacts of various carbon monoxide and carbon dioxide emissions on environment which included emissions during recycling the packaging materials.
- Conducted a comparative study of four different materials and their impact on environment and suggested materials like Polypropylene and Polystyrene can decrease the emissions effecting the environment.
- Used LCA+ Sustainable Minds software to quantify harmful emissions and recommended materials that could reduce emissions by 71%.
- Used Auto CAD for Designing the Seat pad.
- Assisted materials for packaging which are environmental friendly.

November 2012
to
February 2014
National Oilwell Varco Inc Design engineer

- Designed a machine using 8051 Micro controller, Drill, Kiel software and computer.
- The machine was programmed to drill holes at pre-determined positions on printed circuit boards (PCBs).
- Developed machine using CAD tools (AutoCAD/Solid works) and finalized effective design which is suitable for company environment.
- Developed different designs to manufacture the machine and tested its capability.
- Finalized the design based on the efficiency which is 95% effective.
- Assisted in listing Bill of Materials (BOM) for the product according to customer specifications.
- Assigned CNC codes for number of positions and points to be drilled on the PCB's and run code using Kiel software.
- Developed product specifications for the parts of the machine according to the customer needs.

- Determined design requirements and identified suitability of materials.
- Performed trail tests on the Machine and verified the accuracy of the Machine that satisfies the customer requirements.
- Designed the Machine to reduce the company investment and improves profitability for small scale industries.

March 2012
to
September 2012
National Oilwell Varco Inc Design engineer

- Studied sources of vibrations in lathe machines used for manufacturing rubber products.
- Constructed a Gear Box that could mount in different optimal locations and can decrease the vibrations occurred in the machine.
- Assisted in effective design, assembly, manufacturing and installation solutions for developing the Gear Box.
- Used CATIA V5 for preparing designs and layouts for Gear Box and their assembly parts.
- Developed and provided blueprints, design specifications for parts of Gear Box.
- Performed trail tests for the Gear Box designs and ensured the design and functions of the Gear Box fulfill the customer requirements.
- Assisted in troubleshot for all the issues arising with the new designs and helped the workers on basic troubleshooting for all Gear Box products.
- Assisted in ensuring Gear Box standards that meets the industry standards.
- Detection of Vehicle Number plate using Matlab/Simulink Description: Detection of moving object is a crucial part of the video surveillance.
- It is used in many aspects like traffic monitoring for detecting and recognition of number plate using Matlab.
- Now a day due to decreasing cost of high quality video surveillance detection and tracking has become impractical.
- An automated system has been designed to control the traffic monitoring automatically.
- So I opt Matlab to decrease the traffic monitoring issues like number plate recognition and automated teller machine.

Education
August 2016
University of Dayton Masters of Science : Mechanical Engineering Mechanical Engineering
May 2013
Bachelor of Technology : Mechanical Engineering Mechanical Engineering
Skills
3D, 3D modeling, Abacus, automated teller machine, Auto CAD, AutoCAD, basic, blueprints, CAD, CATIA, CNC, controller, Designing, lathe, Machining, Materials, Matlab, MS Office, Minitab, Packaging, quality, Solid works, troubleshooting, video, composition