

SOWRIRAJA KRISHNASAMY

Mississauga, ON L4Z 4C9

sowriraja5_ozg@indeedemail.com

905 462 6944

Over 20 years of experience as a Mechanical Design and manufacturing Engineer. Includes ten years of mechanical design and five years of manufacturing experience. Expert in Mechanical Design and Drafting of Machines, Tools, Jigs & Fixture and Equipment.

- Experienced with most of familiar 2D & 3D CAD/CAE/PLM software.
- Solid understanding of ANSI Y14.5 and GD & T.
- A team player with strong work ethic, drive to improve and interpersonal skills.
- Wide knowledge of material selection, welding, mechanical components, Pneumatics, hydraulics and electrical drives.
- Strong mechanical fundamentals knowledge with manufacturing and metal forming experience.
- Performing of stress analysis, mechanical calculations and functional analysis of mechanism.

Willing to relocate: Anywhere

Work Experience

Mechanical Design consultant

Company PCM innovation Inc
2012 to Present

Tool and Fixture Design.

PCM innovation Inc. - Engineering service CAD/CAM/CAE and Tooling design for its clients in Aerospace, Transportation.

Design Consultant -CAE Inc. - Design of Simulator hardware.

- Generating 3D model and 2D drawing in CREO.
- Storing the 3D data, 2D drawing and documents in Wind chill PLM.
- Assisted in creating 3D model and 2D drawing in Cockpit Panel design, simulator structure.

Mechanical Designer -Tooling Specialist for Roll Royce Canada.

- Designing of various Tools and equipment for Roll Royce Engine manufacturing.
- Generate 3D model and 2D drawing in PROE Wildfire 5.
- Tool concept designing and reviewing with customer.
- Design and development of various tools used for different manufacturing process.
- Designing of Jigs and Fixture for machining and gauges.
- Process tool include lifting tool, carts, parts washer, painting equipment, upright equipment for heavy engine assembly.
- Create detail drawing with BOM and design specifications.
- Modifying existing design and revise the drawings.

Mechanical Designer- Tooling design for Velan Inc., AAA Canada

Generating 3D model and 2D drawing with BOM using Catia V5 for various Tools and Fixture.

Senior Mechanical Designer, Advanced Engineering -SW

IEC HOLDEN Inc - Montréal, QC
April 2015 to July 2015

IEC HOLDEN is the manufacturer of Mechanical and electrical assembly of Motor and generators.
Employed contract basis as a Mechanical Designer.
Apr 2015 to July 2015: Senior Mechanical Designer, Advanced Engineering -SW 2014.

DESIGNER

Intalite Inc - Montréal, QC
April 2012 to December 2012

Acquired by Armstrong World Industries.).
Manufacturer of commercial ceiling systems including panels and accessories.
Responsibilities
Design and Drafting of Sheet metal panel assemblies and accessories.
Creating fabrication shop floor drawings.

Mechanical Designer, Advanced Engineering

IEC holden inc - Montréal, QC
September 2011 to April 2012

Solid works 2011.

Responsibilities

Design and development and machines, fixtures and tool to support all manufacturing process of Motor and generators.

- Concept development machines and fixtures and presenting to other departments.
- Selection of mechanical elements and drive for machines.
- Applying relevant GD & T and functional tolerances for all design drawings.
- Material selection, manufacturing process, finishing along with Bill of material and detail fabrication shop floor drawings.
- Generating 3D model of machine, fixture and tools and validating functional capabilities.
- Producing shop floor drawings and converting supporting files formats to CNC.
- Designed Machines for armature for Glass banding, testing.
- Machines for coil spreading, testing, Edge winding, loop winding and Hypot testing.
- Fixture for coil Forming, Loop bending, Bending die, Coil winding station
- Rotor up ender, motor up ender, Stacking fixture, and Hydraulic shaft insertion press.
- Rotating turn table for brazing, Coil taping machine.
- Adaptor, transport cart, buggies, lifting tools.

Tool Designer

Allied Technologies limited - Singapore
July 2005 to June 2011

Singapore

Allied Tech is a manufacturer of precision stamped metal parts. It provides vertically integrated precision manufacturing services, including design and product development, prototyping services, tool and die fabrication, mass production, plastic injection molding and mechanical sub-assembly services to a wide base of customers.

Responsibilities

Job responsibilities mainly include Tooling design in transferring concept stage design of low to high volume mass production sheet metal parts and assemblies to fabricated parts and assemblies

by applying innovative and challenging technical ideas to meet the customer pre-set cost while maintaining overall design intent, functionality, tolerances and robustness required.

- Participating in the discussion of projects as a CFT member to assist sales for their quotation preparation.
- Describing the process, tooling needed, secondary process like welding, spot welding, riveting spinning etc., Finishing process, technical key difficulties in the CFT discussion after several deliberation and aggressively analyzed
- Preparation DFM/DFA various parts and assemblies to ensure customer requirements are satisfied by considering the manufacturing feasibility.
- Designing of process of fabrication stages upon confirmation of projects from the valued customer.
- Design and detailing of tooling design in accordance with cost, quality and time by applying innovative and challenging design concepts.
- Continuous improvement plan to reduce cost, improve quality and accelerate time.
- Interfacing with customer to troubleshoot the qualities issues, functional aesthetic and other technical elements.

Assistant Design Engineer

Besmak components Pvt. Ltd

August 2004 to June 2005

Manufacturing connector, coupler and terminal used in automobile wiring harness and plastic parts used in automobile industries.

Responsibilities:

- Handle the entire process of development of new products from designing, validation of design, trials & testing and commencing production along with handling related documents & formalities.
- Study & analysis of FMEA, APQP, DFM/DFA and documents Preparation as per TS 16949

Requirement.

- Developing 3D model of the component from 2D hardcopy or by Reverse engineering.
- Carrying out surface and parametric modeling, assembly & Drafting using higher end CAD/CAM Software -Unigraphics.
- Press tool design of terminals used in connector assembly using Auto CAD
- Mold & Electrode designing using UG NX2 and AutoCAD.
- Validating functional capabilities of connector and terminal with generated assembly 3D models and modifying the component geometry.

MANUFACTURING ENGINEER

Niptex Engineering Works - Coimbatore, Tamil Nadu

May 1999 to December 2003

India

Manufacturing parts and assemblies for large textile OEM and textile yarn and fabric quality testing equipment.

Responsibilities:

- Monitored production schedule and all production related activities.
- Involved Planning and procuring of total raw material & Tooling every month as per production plan by maintaining optimum inventory.
- Developing process parameters, testing techniques and design changes to improve the quality of the production tools and reducing the rate of rejection and re-work.
- Reviewing the operational practices, identify the areas of obstruction/ quality failures and advise on system and process changes for qualitative improvement in productivity.

Education

B. E in Mechanical Engineering

Bharathiar University-Coimbatore - Coimbatore, Tamil Nadu

Skills

- Certified in CAD/CAM/CAE Engineering AutoCAD
- Expert level Solid works -Expert level Catia V5 -Expert level PRO-E/CREO 2& Windchill PLM-Expert level Siemens NX-Basic level Oral/Written Languages English and French (Basic)
- Solidworks
- Autocad
- Creo
- Mechanical Design
- Mechanical Engineering
- Pro-E
- FEA