## SACHIN SHENPHADU GONGE

Mechanical Design Engineer

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## PERSONAL SUMMERY

Mechanical Engineer with 4.5+ years of experience in mechanical design and development. Looking for challenging assignments in **DESIGN ENGINEERING** and **NEW PRODUCT DEVELOPMENT** with an organization of high repute for betteropportunities to take the next step in my career and progress into a technology role that gives me more responsibility.

## WORK EXPERIENCE

<u>Design Engineer</u> at **Expert Global Solution Pvt.Ltd**, Aurangabad. **Department**: <u>Design</u> [from Dec.2021 to Present] (link:http://www.expertglobal.com/)

Work on design software name CREO, SOLIDWORK & DRIVEWORKS PRO

## Roles & Responsibilities:

- ✓ Worked on Design Software name Solidworks, Creo5.0& Automation/configuration on Driveworks Software.
- ✓ Perform Mechanical design and automation/configuration work on Belt Conveyor for the power partner Nercon Conveyor,USA
- ✓ Create Cad model ,assemblies and drawing for the Belt Conveyor
- ✓ Automation/Configuration of Cad models, Assemblies for Belt Conveyor by using Driveworks software.
- ✓ Prepare sheet metal fabrication drawing ,Modification and commercial specification drawing using Solidworks & Creo
- ✓ Lead design engineer on numerous design projects requiring communication with project managers and other designers.
- ✓ Planned projects from beginning to end, focusing on timelines and mechanical feasibility.
- ✓ Communicated project requirements and areas for improvement in design review meetings.
- ✓ Collaborate with power partners Nercon USA teams to develop and implement product improvement to enhance performance.
- ✓ Preparing Specification Documents , Bill of Materials, Engineering Documentation
- ✓ Research on new conveyor project as per costumer requirements.
- ✓ Work on another project SUSS Microtech SPM machine For power partner Netherland
- ✓ Monitoring whole belt conveyor as per check point
- ✓ Prepare Product manual & PPT for the Product installation

## **Design Engineer** at **ASM/ASR INDUSTRIES**, Aurangabad. **Department**: **Design** [from Aug.2019 to Dec 2021]

(link:http://www.asrindustries.com/)

Work on design software named **SOLIDWORK & AUTOCAD** models. Perform design & assembling Work on Hydraulic & Pneumatic HMC & VMC Fixture for different component & its tools. Involved in product and process design of mechanical products and components.

## Roles & Responsibilities:

- ✓ Responsible for complete part study for fixture concept for DAP
- ✓ Responsible for complete HMC & VCM Fixture design for different automobile components.
- ✓ Responsible for design of cutting tools for HMC & VMC machines.
- ✓ Prepare bills of materials & Selection of Materials.
- ✓ Moderating whole fixture as per check point list.
- ✓ Visiting clients to conduct trail installation & offer technical solution
- ✓ Weigh constraints while preparing project design schedules as per machine capacity.
- ✓ Collaborate with senior mechanical designers on large-scale design projects.
- ✓ Conform compliance with design standards.
- ✓ Writing professional progress reports for project managers and clients.

#### SIGNIFICANT CONTRIBUTION

I. Title: Fixture Design for Two/Four Wheeler Different Part.

Customers: Bajaj, Hero, Honda, TVS, Yamaha, Tata, Mahindra & Mahindra, Suzuki, Mitsubishi, Skoda

Part for Fixture: Crank Case LH&RH, Clutch Cover, Cylinder Head, Cylinder Block, Motor Cover, Bearing Cap, Compression Housing

Task involved: Part Study, Design, Assembly, Calculation, drawing preparation, development.

**Description:** Study part for deciding operation setup as per sequence. Making Concept for customer enquiry and DAP. Design whole fixture in 3D, Assembly and Drawing by using Solidwork. Calculated of required forces. Selected materials for parts based on experimentation. Reduce weight as per machine capacity. Modetaring whole fixture as per check point list of fixtures. Interact with internal resources and customer to any query. Design machine tools for checking any fouling on components. visit to customer side for trailing installation.

## II. Title: Fixture Design for Two/Three Wheeler Electrical Vehicle Part -(EV-MCU Part)

Customers: Bajaj

**Part for Fixture :** Terminal Power, Terminal Phase, Terminal Groung ,Battery Housing, Battery Upper, Middle &Lower Plates And other components.

**Task involved:** Part Study, Concept, Design, Assembly, Calculation, drawing preparation, development and testing. **Description:** Study part for deciding operation setup as per sequence. Making Concept for customer enquiry and DAP. Design whole fixture in 3D, Assembly and Drawing by using Solidwork. Calculated of required forces. Selectedmaterials for parts based on experimentation. Reduce weight as per machine capacity. Modetaring whole fixture as per check point list of fixtures. Interact with internal resources and customer to any query. Design machine tools for checking any fouling on components. trailling installation inhouse.

# III. Title: Fixture Design for Bearing Housing, Cam Shaft Holder, Differential Cover (3-Wheeler) Bed Plate,PTO Housing.

Customers: Minda, Aurangabad Electrical, Advik, Endurance, Sattavikas, Hitachi,

**Description:** Study 2D Drawing for deciding location, resting and clamping point for fix the part.Study part for deciding operation setup as per sequence.Making Concept for customer enquiry and DAP. Design whole fixture in 3D, Assembly and Drawing by using Solidwork.Calculated of required forces. Selected materials for parts based on experimentation. Reduce weight as per machine capacity.Modetaring whole fixture as per check point list of fixtures.Interact with internal resources and customer to any query.Design machine tools for checking any foulingon components.trailling installation in-house.

# IV. Title: Design Cutting Tools and In-house Gauges for Standard parts.

**Description:** a) Design Cutting Tools –Design of different cutting tools like drilling, facing, taping, reaming for checking purpose.

b) Design In-house Gauges-Study the part which part required standard gauge and design the gauge according to the part dimension. Different newly gauges design to new parts.

## V. Title: Moderator

Checking other new fixture to all part with its detailing according to its technical check point and process check point, maintain all data like check point, enquiry form ,DAP, Customer Mails, Tools & maintain document as perISO Standard.

## **Design Engineer** at **Stumpp Schuele & Somappa Spring Pvt.Ltd**, Aurangabad as a Trainee Engineer

**Department**: **R &D** [from April 2018 to July 2019] (link: http://www.sssspringpl.com//)

Work on design software named **CREO 2.0 & AUOCAD** models. Perform basic product design of Shocker Spring , analysis and testing work for a defined portion of a project.& Develop New Product.

## Roles & Responsibilities:

- ✓ Researching and developing ideas for new products and production systems.
- ✓ Involved in creating and planning new production processes.
- ✓ Improving the design, performance and efficiency of existing products.
- ✓ Complite test qualification schedules and reports when required.
- ✓ Communicating with customers and suppliers to resolve design issues.
- ✓ Making Feasibility Report as per Drawing.
- ✓ Responsibility for Making SIR and PDI Reports.
- ✓ Responsibility for Making Testing report and Check sheet of New Product.
- ✓ Monitoring new product manufacturing whole process up to Dispatch.
- Responsibility for Handling UTS Machine and Endurance Testing Machine.

KEY SKILL & COMPETENCIES				
	Comprehensive understanding of engineering and design principles.			
	Understanding of computer-assisted design software i.e. CAD/CAE/CAM tools.			
	Able to work without supervision.			
	Experience of tolerance analysis and manufacturing drawings.			
	Understanding of GD&T, ISO 9000 / QS 9000 system development.			
	Implemented and administered the Advance Product Quality Planning, Calibration systems and Supplier Development			
	system.			

# CERTIFICATION

MASTER COURSE IN CAD/CAM (CAD/CAM/CAE SOFTWARE) From Indo German Tool Room, Aurangabad.

✓ Able to handle modeling ,surfacing,assembly,analyse & drafting in different designing software.

## SOFTWARE

✓ SOLIDWORK, AUTOCAD, CREO 3.0, Nx 10, CATIAV5, ANSYS 19 R3, MASTERCAM, MS Office.

EDUCATION				
Qualification	Institute	Year of Passing	%/age	
MASTER COURSSE  Tool Designing and CAD CAM	Indo German tool room, Aurangabad	2018	66.59	
B.E.in  Mechanical Engineering	G. H. Raisoni Institute of Engineering and Management, Jalgaon	2017	63.59	
H.S.C	Saraswati Jr.College, Talni Sillod	2011	62	
S.S.C	New High School, Sillod	2009	69.07	

## ACADEMIC PROJECT DETAILS

Title: To study of Stress Concentration on Circumferecial Notches.

✓ To analysis the stress concentration on circular shaft which having different notch and find out the forces by FEA graphical method.

Title: Design and analysis of differential gear box.

✓ Design the gear box & Analyze the force on gear with the help of Ansys.

# PERSONAL MEMOIR

Nationality - Indian

**Languages** - Marathi, Hindi, English.

Date of birth - 28. Nov.1993

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Dist. Aurangabad, Maharashtra.

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