

Devendra Singh

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OBJECTIVE

Experienced Mechanical Design Engineer with a proven track record of delivering innovative solutions in nuclear energy, defence & power sector. Passionate about leveraging expertise in CAD design, prototyping, and project management to drive product development and optimize manufacturing processes.

CAREER SUMMARY

Dynamic and results-driven Mechanical Design Engineer with 5 years of experience in nuclear energy, defence & power sector. Proficient in CAD tools with a proven track record of designing innovative solutions that optimize efficiency and performance. Strong analytical skills combined with a detail-oriented approach, enabling the development of robust mechanical designs from concept to production. Seeking to leverage expertise in product development/prototyping/manufacturing optimization to contribute to the success of a forward-thinking organization.

EDUCATION

- Bachelor in Technology: Mechanical Engineering - 2016
Madan Mohan Malaviya University of Technology, Gorakhpur-74.26%
 - Intermediate: Board of High School & Intermediate Education, UP - 2011
Chacha Nehru Smarak Inter College, Kanpur- 84.2%
 - High School Board of High School & Intermediate Education, UP – 2009
DNB High Secondary School, Kanpur- 76.33%
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WORK HISTORY

Technical Officer, ECIL (Reactor project Division), Hyderabad **(10/2020)-Present**

- Design, product development and reverse engineering of MPPCS Racks/Module & PREMS units enclosure and their components as per the customer's requirement using AutoCAD Mechanical, Creo, UG-NX & Solid Work.
- Design & prototype completed for EMIL Module (4 types), VMEIO modules (4 types), VME Bins (3 type), SS JB's (11 No's) for site replacement.
- Participated in qualification tests (Vibration, Shock and salt spray test) for specified machined Racks.
- Facilitated in creating the dimensional Drawings, main assembly drawing, part drawings of Racks, Consoles and its components using AutoCAD.
- Oversee high-level BOM management, ensuring accurate documentation of components, materials, and suppliers to support efficient procurement and manufacturing processes.
- Facilitated in preparing the technical reports, design specification documents for the material procurement and participated in indent making activities i.e. tender specification, estimates preparation, pre-bid meeting & vendor evaluations for the material and services.
- Directed in design and detail engineering of components by using 3D modelling & 2D Drafting with reference of ASME and IS.
- Facilitated in preparing QAPs, technical documentation, assembly procedures and check Lists to ensure that product meet compliance regulations.
- Orchestrated with cross-functional teams to develop product specification and ensure design feasibility.
- Directed multiple projects simultaneously, from concept development through prototyping and validation.
- Collaborated on preparing and follow assembly procedure for different MA's and GA's.

Design engineer on Contract, BHEL (R&D), Haridwar

(12/2019)-(10/2020)

- Acquired proficiency in 2D/3D CAD digitization of Advanced Ultra Supercritical (AUSC) 800 MW Intermediate Pressure Turbine and its Components (i.e., inner casing turbine side, generator side, thermal shield) using Creo4.0.

- Directed FEA Analysis of 800MW AUSC IP Turbine Inner Casing (turbine side, generator side, inlet, and thermal shield) for Steam Parameter 58.64 bar/720°C.
- Exposure of Steady State Thermal & Structural, Transient, Creep, Fatigue analysis and Structural optimization using DOE (Design of Experiments) in ANSYS workbench18.1
- Exposure of design Optimization of Intermediate Pressure Turbine in Design Modular.

Junior Technical Officer, ECIL (EMSD), New Delhi

(03/2019)-(05/2019)

- Oversaw sealing, distribution, polling, commissioning, repair & maintenance of EVMs, VVPATs including First level checking in the field.
- Participated in keeping a maintenance record and filing documents and instruction manuals.
- Acquired proficiency in diagnosing equipment malfunctions and performing repairs.
- Participated in manufacturing services of the products across the pan India.

Graduate Apprentice Trainee, BHEL (R&D), Haridwar

(03/2018)-(02/2019)

- Acquired proficiency in 2D/3D CAD digitization of Advanced Ultra Supercritical (AUSC) 800 MW High Pressure Turbine Components i.e., outer casing, inner casing Inlet end, Exhaust end) using Creo3.0.
- Directed FEA Analysis of 800MW AUSC HP Turbine Outer Casing (Inlet End, Exhaust End) for Steam Parameter 300 bar/580°C.
- Directed FEA Analysis of 800MW AUSC HP Turbine Inner Casing (Inlet End, Exhaust End).
- Exposure of Steady State Thermal, & Structural, Transient, Creep, Fatigue analysis and Structural optimization using DOE in ANSYS workbench18.1
- Exposure of design Optimization of HP Turbine in Design Modular.

SKILLS AND STRENGTHS

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| <ul style="list-style-type: none">• PTC-CREO• UG-NX• SolidWorks• Ansys Mechanical Workbench• AutoCAD Mechanical• Reverse Engineering• Design Optimization• GSD&T• Product Development• Project Management | <ul style="list-style-type: none">• MS Word, PowerPoint & Excel• Sound Design Knowledge• Confident & determined• Task Oriented• Adaptability• Keen Observer• Strong analytic ability• Time Management• Adaptability to new tasks and project• Problem Solving |
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PROFESSIONAL ACCOMPLISHMENTS

- AutoCAD 3D Professional Certificate by Itronix Solution in march, 2023.
- Certificate of completion Siemens NX Unigraphics Basic to Advanced level by Tutorials point in march, 2023.
- Certificate of Completion in Technical Drawing & Drafting by Autodesk in march, 2023.
- Certificate of completion in Geometric Dimensioning & Tolerancing Foundation by CODIENTER in Feb, 2023.
- Certificate of completion in Technical Drawing (AutoCAD & other Software) by Upskillist in Feb, 2023.
- Certificate of Excellence in ADVANCED LEAN SIX SIGMA YELLO BELT CERTIFICATION internationally accredited by CSSC and conducted by Sparen & Gewinn consulting in Sept, 2022.

