VAIBHAV JAIN (M.tech - IIT Dhanbad)

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**CAREER OBJECTIVE**

To work in such an environment where I can develop myself professionally while making a significant contribution to the success of the organisation.

**INDUSTRIAL EXPERIENCE**

**TATA Advanced Systems Ltd, Bangalore(KA)**

*Assistant Manager - Mechanical Design* (APRIL 2022 - Currently Working)

*Senior Mechanical Design Engineer* (NOV 2020 - MARCH 2022)

Development of Algorithms Scripts using Python and C++ to automate Mechanical Design processes.

Designed and developed various Defence weapon systems and machinery such as Akash Army Launcher, ATAGS, and Active Protection System for the Indian Army.

**PBO Plus Consulting Services (P) Ltd, Nashik(MH)**

*Mechanical Engineer* (MAY 2019 - APRIL 2020)

Developed an Algorithm on Python which converts Vibration time domain data into frequency domain for machine diagnosis through vibration analysis and control.

**Bharat Oman Refineries Ltd, Bina(MP)**

*Intern* (JUNE 2017 - JULY 2017)

Responsible for Overhauling of Pumps, Compressors. Learned different aspects of machine maintenance.

**ACADEMIC CREDENTIALS**

| Qualification | Board/University | Year | Grades |
| --- | --- | --- | --- |
| M.Tech [Machine Design] | Indian Institute of Technology, **IIT ISM Dhanbad** | May 2020 | 9.0 CGPA |
| B.E [Mechanical Engineering] | Madhav Institute of Technology and Science, **RGPV University** | May 2018 | 7.84 CGPA |
| HSC - 12th | CBSE | June 2013 | 75.6 % |
| SSC - 10th | CBSE | June 2011 | 8.8 CGPA |

**TECHNICAL SKILLS**

**Softwares**

* Ansys | Abaqus | MATLAB & Simulink | MathCAD | PLM | TeamCenter
* Solidworks | Solid Edge | Catia V5 | Siemens NX | CREO

**Programming Languages**

* Python ( Pandas & Numpy lib), Tcl/Tk, Flask
* C, C++, STL, Object-Oriented Programming in C++, Data Structures
* HTML, CSS & Javascript

**PROJECTS**

**Automation of Design and Selection process of mechanical components with definite input parameters.** —Self Project (Oct 2021 - Feb 2022)

* Design process automation of various mechanical components such as shaft, beam, keys, and gears along with selection of bearings, roller chains, and sprockets from the manufacturer’s catalogue using Python Flask framework.

**Kinematic and Dynamic Analysis of a single-stage Cycloidal Speed Reducer.** —Assoc. Prof. S.K Ghoshal, IIT (ISM) Dhanbad. (Dec 2019 - May 2020)

* Design and Analysis of stress state of the Cycloidal Speedreducer components in the assembly under motion in Ansys workbench 18.1. Which shows the sections in the assembly are more prone to failure.

**Machine Diagnostic through vibration Analysis using Fast Fourier Transform.** —Assoc. Prof. S.K Ghoshal, IIT (ISM) Dhanbad. (June 2019 - Nov 2019)

* Diagnosis of Rotary machines through vibration analysis using Fast Fourier Transform with MATLAB application to predict the machine health by determining the frequency of the defective component from the frequency domain graph, thereby eliminating unplanned downtime of the machines.

**A Case Study of IC Engine cooling fins subjected to thermal stresses.**

—Asst. Prof. Akash Sood, MITS Gwalior. (Jan 2018 - April 2018)

* Analysis of the Automobile cooling fins subjected to crack under thermal stresses by Ansys engineering simulation 14.2.

**Atmospheric Water Generator *from moisture-laden air.***

—Asst. Prof. Sharad Aggrawal, MITS Gwalior. (Jul 2017 - Dec 2017)

* Water extraction from humid air using Adiabatic Saturation with the vision to meet the drinking water requirements of households in coastal regions of India.

**Design and Modelling of a small-scale prototype of a Manoeuvrable Remote Consoled Aircraft.**

—Prof. C.S Malvi, MITS Gwalior. (Jan 2017 - April 2017)

* Design and testing of a propeller-driven aeroplane designed to perform manoeuvring of pitching, yawing, and rolling in free air.

**Designed & Manufactured go-kart for national-level competitions.**

—Prof. M.K Gaur, MITS Gwalior. (Jun 2015 - Oct 2015)

* Responsible for brake assembly design, chassis impact analysis, powertrain calculations, and DFMEA.

**ACHIEVEMENTS**

* Awarded Star of the month for June 2022 at Tata Advanced Systems Ltd for excellent work performance in Active Protection System.
* All India Rank 1554 in Graduate Aptitude Test in Engineering under Mechanical Engineering Stream (Gate score: 757).
* Awarded with certification in Dy’signo a state-level technical design competition.
* Secured 22nd rank in Go-kart championship at Lovely Professional University by LPU SAE INDIA COLLEGIATE CLUB (18 Mar 2016).
* Acquired 33rd rank in National Kart Racing Championship 2016 – Season 2 (17th to 19th Oct 16).

**ABILITY & SKILLS**

* Fast Learner, Team Player
* Can work under pressure

**PERSONAL DOSSIER**

Father’s name Mr. Vijay Kumar Jain

Permanent address 179, Jawahar ward, Sarvodaya chowk, Bina - 470113

Nationality Indian

Interest & Hobbies Chess, Reading finance books.

**DECLARATION**

I declare that the above information is true to the best of my knowledge.

Vaibhav Jain