

YASHKUMAR PATIL



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PROFILE

To Explore new things and challenges, where I can contribute my knowledge and skills to the organization and add values to myself through continuous learning .

EDUCATION

M.TECH - AEROSPACE ENGINEERING

Indian Institute Of Science (IISc) , Bengaluru
2025 - 2027
CGPA : 8.4

B.TECH - MECHANICAL ENGINEERING

Institute of Technology, Nirma University,
Ahmedabad
2018 - 2022
CPI : 8.57

HIGHER SECONDARY EDUCATION

Shree Swaminarayan High School & Higher
Secondary School, Gandhinagar
2016 - 2018

PERCENTAGE : 89 %

SECONDARY EDUCATION

Shree Swaminarayan High School &
Higher Secondary School, Gandhinagar
2015 - 2016

PERCENTAGE : 78%

WORK EXPERIENCE

MAINTENANCE ENGINEER

Reliance Industries Limited, Jamnagar SEZ division

08/2022 - 07/2025

- worked as a maintenance engineer in SEZ CFP (Clean Fuel Plant) where major role considering Planning , execution and managing manpower though various stage of job execution
- Completed **MUG Compressor (Reciprocating Compressor)** breakdown job along with complete overhauling. Key learnings are crankshaft replacement along with technical analysis of breakdown and overhauling executed as per **SMP** of reliance with vendor procedure compliance.
- My working philosophy are Plan, schedule, predict and manage all the technical tasks of the plant maintenance.
- Managing all activities with knowledge of SAP PM/MM module.
- I have successfully completed pump breakdown job (Seal replacement) in stipulated time to minimize production lose .
- I have vast knowledge of pump , exchanger , compressor ,valves along with technicality.

Participate Various Plant shutdown and Mega shutdown along with executing MOC (hot work) & miscellaneous job (valves replacement) with zero incident and before schedule completion.

ENGINEER INTERN

ARCELORMITTAL NIPPON STEEL INDIA

12/2021 - 05/ 2022

- Project-IMPROVEMENT IN DUST RECYCLING SYSTEM (DRS) AVAILABILITY Explored COREX Plant where worked on design improvement as well as material selection which will increase reliability of DUST RECYCLING SYSTEM of COREX Plant

SOCIETY FOR SPACE EDUCATION RESEARCH AND DEVELOPMENT (SSERD)

08/2020 - 10/ 2020

Design Mars-Crew Exploration Vehicle where i am Responsible for Design of Suspension and Chassis for Mars-Crew Exploration Vehicle for Jezero Crater Site

SKILLS

- MECHANICAL DESIGN
- Vibration
- Modal Analysis
- ANSYS WORKBENCH (FEA & CFD)
- SOLIDWORKS CAD Modelling
- CONDITION MONITORING
- MACHINE LEARNING
- AERODYNAMICS

INTERESTS

- Aerodynamics
- Vibrational and modal analysis
- Finite Element Analysis
- Machine Learning
- Machine Design
- Rocket Engine

HOBBIES

- Cricket
- Football
- Space exploration information

PROJECTS

DESIGN OF UNMANNED AERIAL VEHICLE

06/2019 - 12/ 2021

- Design and fabrication of fixed-wing unmanned aerial vehicle (UAV) with high payload fraction using various computation and designing software like XFLR5, Solidworks and ANSYS

TOOL WEAR MONITORING OF FRICTION STIR WELDING USING SINGULAR SPECTRUM ANALYSIS AND MACHINE LEARNING

06/2021 - 11/ 2021

- Predicting the tool wear of friction stir welding tool using signal processing and machine learning to minimize production loss and breakdown of tool.

BEARING FAULT DIAGNOSIS USING WAVELET TRANSFORM AND MACHINE LEARNING TECHNIQUES

04/2021 - 05/ 2021

- Using Casewestern University bearing vibration data to predict bearing fault using different machine learning techniques like KNN, SVM, ANN and WAVELET TRANSFORM

DESIGN OF CENTRIFUGAL CLUTCH

10/2020 - 11/ 2020

- Design centrifugal clutch based on given parameter like power, RPM and no of shoe and done CAD modelling using Solidworks

RESEARCH PAPER

PREDICTION OF ORAL CANCER TREATMENT PLAN USING MACHINE LEARNING

04/2021 - 12/ 2021

- Different Machine Learning algorithms were applied and an application was designed using Anvil for the ease of doctor and patients to provide treatment plan.
- This research paper is published in **international journal of computer information systems and industrial management applications**

ACHIEVEMENTS

- OVERALL 3rd RANK in SAE AERO DESIGN CHALLENGE SOUTHERN SECTION (2020)
- 2ND RANK (DESIGN REPORT) IN SAE AERO DESIGN CHALLENGE SOUTHERN SECTION
- OVERALL 1ST RANK in SAE AERO DESIGN CHALLENGE SOUTHERN SECTION (2021)