

SHAIL PATEL

MECHANICAL ENGINEER

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EMPLOYMENT

Siemens Limited, *Executive Proposal Engineer - Sales Support Professional*, Vadodara, Gujarat, India

Dec. 2021 - Aug. 2022

Proposal Department

- Managed Costing and Estimation of Steam Turbines and Surface Condenser
- Managed Thermal Design Sizing of Surface Condenser
- Worked closely with R&D and Engineering team for cost effective product design improvement.
- Determine cost estimate targets during the design and development process, recommending cost effective solutions
- Investigated and identified cost reduction opportunities through cost analysis review
- Worked with stakeholders to ensure estimates are accurate and to make appropriate adjustments and resolve issues
- Analysed supplier quotes and provided information and data, which aids communications with suppliers and customers and achieves cost optimisation.
- Ensured supplier quotations meet 'should cost' estimates
- Supported supplier meetings and negotiations to challenge quotation prices and aim for cost reductions to meet target costs
- Supported and utilised experience to aid best practice in the supplier process in conjunction with members of the purchasing team

Dhara Equipments, Jr. *Production Engineer*, Ahmedabad

May 2019 - Sept. 2022

Production Department

- Managed Estimation of material and prepared a cutting list of material as per design.
- Measured of Dimension as per drawing for Quality purpose.
- Managed document of Drawings, Inspection reports and Test Certificates of Raw Material.
- Worked with Inspection Teams of clients like Ingersoll Rand and Dresser Rand.
- Worked closely with vendors, subcontractors and employees.

Sigma Inspection & Testing pvt. Ltd., *Intern*, G.I.D.C Naroda, Ahmedabad

Dec. 2018 - Jan. 2019

Quality Control/Quality Assurance

- Conducted Ultrasonic Testing of plate, round bar, casting, forging, welding and pipe as per ASME Sec V, article 4,5 & 23.
- Radiographic film interpreted of welding and casting as per ASME Sec V, Article 2 & 22, Evaluated acceptance rate as per ASME Sec VIII, Div 1.
- Conducted Magnetic Particle Testing (As per ASME Sec V, Article 7 & 25) and Liquid Penetration Testing (As per ASME Sec V, Article 6 & 24) of welding, casting, forging and rolled products.

Micro Process Controls, *Intern*, G.I.D.C Chhatral, Ahmedabad

Dec. 2017 - Jan. 2018

Design Department and Quality Control

- Was responsible for checking and calibrating a variety of temperature sensors with the help of Temperature bath which provide optimal temperature environments for secondary or comparison temperature calibrations.
- Calibrated pressure measuring instruments with the help of Dead weight tester which is a calibration standard that uses the principle of a pressure balance.
- Designed and developed different sensors and gauges.
- Conducted final quality inspection as per the requirement and preparation of quality control documents before dispatch of product.

Guru Corporation, *Intern*, Prahlad Nagar, Ahmedabad

June 2017 - July 2017

Research and Development

- Tested and developed synthetic slag powder to improve steel quality for casting industries.
- Developed concrete additives for higher strength of construction.

EDUCATION

University of Windsor
M.ENG MECHANICAL ENGINEERING

Sept. 2022 - Current

INDUS UNIVERSITY
B.TECH MECHANICAL ENGINEERING 2019
CGPA :- 8.34

2015 - 2019

PROJECTS

Research and Development of Electric Injection Molding Machine

Mar. 2021 - June 2021

- Injection moulding machines perform a wide range of mechanical movements with differing characteristics. Mould opening is a low-force, high-speed movement, and mould closing a high-force low-speed movement which is performed by the electric servomotor. Plasticizing involves high torque and low rotational speed, while injection requires high force and medium speed which is also performed by the electric servomotor with the use of a ball screw.

Manufacturing of Solar Steam Equipment by use of Parabolic Mirror Concentrator.

Sept. 2019 - June 2020

- By using renewable energy that is solar radiation converted the water into steam by the principle of evaporation, where in the water gets evaporated by solar radiation being concentrated on a single line by a parabolic trough which then gets heated by numbers of parabolic trough to form superheated steam.

Design and fabrication of water desalination system using parabolic method

July 2018 - May 2019

- By using renewable energy that is solar radiation converted the sea water into safe drinking water by the principle of evaporation and condensation, where in the salty water from sea gets evaporated by solar radiation being concentrated on a single line by a parabolic trough which then gets condensed to form portable water.

Automation for food serving in Cafe & Restaurant

Nov. 2017 - Feb. 2018

- With the help of Arduino microcontroller, relay and Bluetooth module developed a train concept for automatic food serving system which can be applicable for restaurants.

Home automation

Dec. 2016 - Jan. 2017

- Developed Home automation used for controlling home appliances remotely with the help of various control systems.

ACHIEVEMENTS

POSCO ASIA FELLOWSHIP 2018

POSCO

2018

- Awarded for outstanding scholastic achievement and dedication to knowledge at Indus University.

POSCO ASIA FELLOWSHIP 2017

POSCO

2017

- Awarded for outstanding scholastic achievement and dedication to knowledge at Indus University.

PUBLICATION

RESEARCH PAPER

Compliance Engineering Journal

June 2020

Research paper published on " Manufacturing of Solar Steam Equipment by use of Parabolic Mirror Concentrator in Compliance Engineering Journal (CEJ) Volume 11 Issue 6, June 2020

https://drive.google.com/file/d/1G9eH6BQROoYe_4lJpjL6ubtuax0ooCOC/view

RESEARCH PAPER

Internation Research Journal of Engineering and Technology

May 2019

Research paper published on " Design and Fabrication of solar water desalination by using parabolic method " in International Research Journal of Engineering and Technology (IRJET) Volume 6 Issue 5 , May 2019

<https://www.irjet.net/archives/V6/I5/IRJET-V6I531.pdf>

CERTIFICATION

Six Sigma Green Belt

University System of Georgia

- Six Sigma Green Belt Specialization is Advanced Quality Management Tool.
- Six Sigma Green Belt is Advanced Certification in which the following completed: Six Sigma and Organization(Advanced), Six Sigma Advanced Define and Measure Phase, Six Sigma Advanced Analyse Phase, Six Sigma Advanced Improve and Control Phases.

Six Sigma Yellow Belt

University System of Georgia

- Six Sigma is a set of management tools and techniques designed to improve business by reducing the likelihood of error. It is a data-driven approach that uses a statistical methodology for eliminating defects.
- Six Sigma is a Quality Management Tool.
- Six Sigma Yellow Belt is Basic Certification in which the following completed: Six Sigma Principles, Six Sigma Tools for Define and Measure, Six Sigma Tools for Analyse, Six Sigma Tools for Improve and Control.

Certified Welding Inspector

June 2018 - July 2018

- Detailed study on different types of welding methods.
- Preparation of Documents **Welding Procedure Specification** and **Procedure Qualification Records** which is prior requirement for welding.
- Acceptance and rejection criteria of destructive testing and Non destructive testing based on documents (American Welding Society) AWS D1.1 and (American Petroleum Institute) API 1104.

Non Destructive Testing

As Per ASNT-SNT-TC-1A (American Society of Non Destructive Testing)

Jan. 2018 - Aug. 2018

- Level-2 certified in Ultrasonic Testing , Radiography Testing , Magnetic Particle Testing , Liquid Penetration Testing , Visual Testing , Eddy Current Testing.

IFTARC

Indus Foundry Training And Research Centre

Feb. 2017

- Certified Training course in field of Foundry with specialization in Sand Casting at Indus Foundry Training And Research Centre.

SKILLS

AutoCAD, Creo, SolidWorks, PDMS, Fusion 360, Navisworks, C Programming, C++ Programming, JAVA Programming, Microsoft office , Quantitative, Analytical, Critical Thinking, Problem Solving, Leadership, Decision Making, Time Management

LANGUAGES

English , Hindi , Gujarati

ACTIVITIES

Member in "ISNT :- Indian Society for Non-destructive Testing"

- Attended lectures from industries professionals about importance of Nondestructive Testing in practical field.
- Performed Hands on Training of different Testing equipment which is used to perform Nondestructive testing.

Member in "ISHRAE :- Indian Society of Heating , Refrigerating and Air conditioning Engineers". President

- Introduced ISHRAE student chapter in INDUS UNIVERSITY.
- Attended expert lecture on HVAC.
- Learned about heat load calculation for designing air conditioning system.