SAURABH SANTOSHLAL DUGAD
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Mobile No.: +91-7798377379

EDUCATION

B.E. (Mechanical Engineering) Pursuing
(Probable completion by Aug 2020)
Savitribai Phule Pune University, Pune
GPA- 6.0/10 (till 7th Semester)

Diploma (Mechanical Engineering) 2011 - 2016
Maharashtra State Board of Technical Education, Mumbai
Percentage- 64.41%

Secondary School Certificate 2010- 2011
Maharashtra State Board
Percentage- 78.00%

EXPERIENCE

SAE NIS EFFI-CYCLE 2018 Competition Jan 2018-Nov 2018
Designation- Team Leader **Team Strength-** 13 Students
Team Name: The Avengers **Guidance-** Prof. P.D.Bagmar
Project-"Design and fabrication 3-Wheeler Hybrid Power Vehicle"

(*Herewith pictures of designed and fabricated vehicle are attached)

- The project concept was three-wheeler configured and hybrid-powered (by human-electric source) and capable of seating two passengers side by side catering to the day to day mobility needs.

- The vehicle was aerodynamically designed and fabricated within given tolerances, also focused on performance, safety, and ergonomics as per given guidelines by SAE organization.

- Stages qualified-
  1) Technical Inspection (T.I.)
  2) Static Round (Vehicle build quality evaluation, Design, and CAD/CAE report evaluation, Material testing report evaluation, Technology advancement, Cost evaluation, Business presentation)
  3) Dynamic Round (Acceleration test, Braking test, Grad-ability test, Figure test, Electric motor speed test)
  4) Endurance Run (This was the final stage (i.e. race). Here single lap is around 1.5km and you have 1.5 hr is to complete the max. No. of a lap to win the race, our vehicle has completed 14 laps with one vehicle breakdown and the winning team has completed 22 laps.)

Skill Enhance- Relevant subject knowledge, Design calculations, Computer Aided Drafting and Engineering, Physical prototype fabrication, Bill of Material sheet.

ACADEMIC PROJECTS

Project: "Parallel Parking using Fifth Wheel with Pneumatic Valve" June 2019 – July 2020
Guide: Prof. R.R.Kankriya
Brief:

- The main motive behind the execution of this project to reduce hecticness, inconvenience, effort, and time of drivers while parking vehicles in narrow space.
- The number of vehicles increasing owing to an increase in population compared to paring space thus many times drivers may face difficulties in parking as narrow space available for parking.
- The prototype designed and drafted using CAD software in which the fifth wheel is attached to the rear of the vehicle.
- The small prototype of the vehicle constructed accordingly. The vehicle includes a drive system, propeller shaft, pneumatic cylinder, solenoid-operated directional control valve, a fifth wheel with a chassis frame, and auxiliary wheels.
- The entire system is operated by a motor and is controlled by a pneumatic clutch and drive system.
- This prototype successfully demonstrated that with this fifth wheel vehicle concept drivers can park vehicles easily in narrow parking space.

Skill Enhance - Design & drafting, Fabrication, Automotive technology, Selection and procurement of automotive parts, Documentation, Report making & Power Point Presentation.

Project: "Refrigeration and fabrication of water cooler" June 2015 – June 2016
Guide: Prof. V.G.Patil
Brief:

- This project worked on the conduction heat transfer method.
- In this project, two copper tubes are winded in a spiral and parallel way and are joined with spot welding to better thermal contact between each other.
- By this technique, thermal conduction between these two tubes will be high and it follows the counter-flow method for better cooling effect.
- In the project, R600a (isobutene) gas used as a refrigerant due to its easy availability, environment-friendly nature.
- In this project of water coolers concluded that the cooling of water in a heat exchanger or evaporator depends on-
  - The flow rate of water entering the heat exchanger
  - Superheating, Total component capacity, efficiency, and effectiveness
- With this fabricated prototype successfully demonstrated that waste heat of compressor can use for water cooling.

Skill Enhance - Heat transfer phenomenon, HVAC, Economic considerations, Waste heat utilization, Fabrication, Report making & Power Point Presentation.

CERTIFICATE COURSE

- Six-Sigma (Green Belt) July 2020
- Introduction to Industrial Design Foundations June 2020
- Introduction to Geometric Dimensions and Tolerancing (GD&T) May 2020

SOFTWARE ACQUAINTED WITH

- CATIA V5
- AutoCAD
- Fusion 360 (In-Process)
- MS-OFFICE

Programming Language Known

- Python (In-Process)
- Basics Of C & C++

INTERNSHIP AND TRAINING

- Software Engineering Virtual internship at JPMorgan Chase & Co. June 2020
- Induction training on Industrial Automation at Technocrat's Academy of Automation & Control Technology (TAACT), Nashik, (MH) January 2016
- Induction training at SRTC workshop, Chalisgaon, (MH) Augest 2015

ACHIEVEMENTS AND EXTRA CURRICULAR

Competition

- Secured 18th Rank in INDIA, 3rd rank in Maharashtra National level SAE NIS EFFI-CYCLE competition 2018.

Technical Event

- Event co-ordinator for MOMENTUM-2018 and MECHSTORM-2020- National level technical event organized by MESA SNJB's KBJCOE, Chandwad.
- Active participation in Poster presentation, Robo-race, Hydro-launcher, Treasure-hunt events

Sports

- Bronze Medal Winner in 7th Maharashtra State Karate Championship, Central Railways, Bhusawal Division.

SKILLS AND STRENGHTS

- Quick learning ability which helps me in a quick understanding of new things and speed-up my work.
- Demonstrated ability to work under pressure to meet deadlines.
- Good Inter-personal & Communication Skill.
- Management Skill (Time, People & Cost).
- Analytical and Problem Solving Skills.
- Flexibility and Adaptability.
- Leadership & Good team player.

DECLERATION

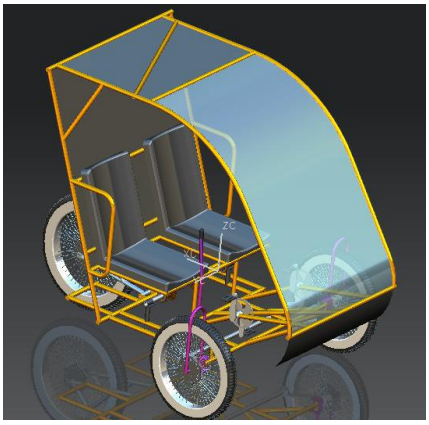
I hereby declare the above-mentioned information is true & I bear the responsibility for the correction of the above mentioned.

SAURABH SANTOSHLAL DUGAD

Pictures- SAE NIS EFFI-CYCLE 2018 Competition- Design and fabrication of 3-Wheeler Hybrid Power Vehicle

For more details about project checkout my portfolio:

https://drive.google.com/drive/folders/1PNrOV_-_sPE6f9YQJiyPYee-8zUcZPyA?usp=sharing



CAD DESIGNS

ACTUAL PHOTO

Practice Modules using CAD software