

CAREER OBJECTIVE

To have a career, where I can make use my knowledge and skills, and further improve my experience through continuous learning and teamwork.

ACADEMIC QUALIFICATIONS

| Year | Degree | Institute/University Name | Performance |
|---------------|-------------------------------------|--|-------------|
| 2018- Present | Ph. D (Mechanical Engineering) | Indian Institute of Technology, Kanpur | 8.5/10 |
| 2016-2018 | M. Tech. (Automotive Technology) | University of Pune, Maharashtra | 7.1/10 |
| 2011-2015 | B.Tech. (Mechanical Engineering) | University of Pune, Maharashtra | 67.01% |
| 2009-2011 | Intermediate (10+2) | University of Pune, Maharashtra | 80% |
| 2009 | High School | Maharashtra State Board | 85.7% |

M. Tech PROJECT

Project Supervisor: Mr. Omkar Joshi

Structural Design Lab (SDL)

May'17-May'18

Automotive Research Association of India (ARAI), Pune

Project Topic: Vibration Analysis and Simulation of 18 Degree of freedom tractor semi-trailer for half vehicle model subjected to random road profile.

The focus of this project is the development and simulation of a ride comfort model for a cab-over style tractor semi-trailer. The model has 18 degree of freedom and focuses on vertical dynamic response. The responses which are important and therefore most intensively studied are ride comfort levels experienced at driver seat and the vertical acceleration of C.G of trailer. Also important are dynamic stroke of at fifth wheel connection, the vehicle ride height, and static pavement loading at tire/road interface.

ACADEMIC PROJECTS

Seminar:

- Study of electric drives and motors for mobility
- Study of a test set up for measuring wiping area of windshield for M1 class of vehicles.

Mini Project: Concept on signal conditioning: Temperature measurement of engine radiator by using Arduino.

B. Tech PROJECT

Number of team members: 4

May'13-May'14

Project Topic: Optimization of weld characteristics for improving mechanical properties of welded joint by varying its parameters in TIG Welding process for SS304 Alloy.

The results of present work indicate that welding parameters have significant influence on tensile strength and hardness. The optimal parameter so obtained has been verified by confirmatory experiments. In this project TIG Welding of stainless steel 304 was studied at different values of Current, Plate thickness, Root gap, Electrode diameter, Filler rod diameter, Gas flow rate, Purging gas flow rate.

CONFERENCE, PUBLICATIONS AND RESPONSIBILITIES

- Participated in short term course on Advanced Course on Engine Combustion, Diagnostic, Emissions Control and Emerging Fuels held at IIT Kanpur.
- Participated in short term course on Design of Engine for Emission Compliances held at IIT Kanpur.
- Attended user conference of Converge CFD held at Pune.
- Presented research paper on Comparative Study of Microscopic Spray Characteristics of Different Alcohols at 3rd Conference of International Society of Energy, Environment and Sustainability held at the IIT Roorkee.
- Presented poster on Concept on signal conditioning: Temperature measurement of engine radiator by using Arduino at ARAI Pune.
- Invaluable contribution as a Volunteer to the 3rd ISEES International Conference on Sustainable Energy and Environmental Challenge (SEEC-2019) held at the IIT Roorkee.
- Student Volunteer for SIAT 2017 at ARAI Pune.

TECHNICAL SKILLS

Expertise in handling following instruments:

- EEPS (Exhaust Emission Particular Sizer)
- Chassis Dynamometer
- Phase Doppler Interferometry
- Engine Dynamometer
- MEXA-6000FT-E (FTIR)
- Horiba EXSA-1500 Exhaust Gas Analyser
- High Speed Camera

SOFTWARE EXPOSURE

- GT Suite Software
- Graphical Programming Language: Lab View
- MS Suite: Word, Excel, PowerPoint
- Arduino Software
- Converge Software
- Programming Language: C, MATLAB
- 3D Modelling Software: Solid Work, CATIA, Autodesk Inventor

RELEVANT COURSE

- Alternate Fuels and Advances in IC Engines
- Engine Design
- Vehicle Dynamics
- Basic Thermodynamics
- Design Thinking and Practice
- Automotive Electronics
- Introduction to Virtual Instrumentation
- Aerodynamics
- Fluid Mechanics
- Automobile Engineering

INTERPERSONAL SKILL

- Adaptive in learning new skills/technology.
- Ability to work in team environment
- Hard working and self-motivated

PERSONAL DETAILS

- Father's Name- Mr. Sugriv Sonawane
- Permanent Address- P.M.C Colony no-7, Ghorpade Peth, Swargate, Pune-411042
- Date of Birth- 01/01/1994
- Language Known- English, Hindi, Marathi and German (Basic).
- Marital Status- Unmarried
- Nationality/Religion- Indian
- Hobbies and Interest- Cooking, Pencil Sketching, Listening Music, Travelling

DECLARATION

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

Place:

Utkarsha Sonawane

Date: