## Educational Qualification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Year** | **Degree** | **Institute** | **University** | **Percentage**  **/ CGPA** |
| 2015-17 | M.Tech (Mechatronics) | VIT, Vellore (Chennai campus) | VIT University | 8.66/10 |
| 2010-14 | B.E. (Automobile) | RIT, Rajaramnagar, Sangli | Shivaji University Kolhapur | 65.56% |
| 2008-10 | H.S.C | SGM College, Karad | State Board | 64.83% |
| 2007-08 | S.S.C | ACVM Malkapur, Karad | State Board | 84.61% |

* Overall **1.6 years** of working experience in **Automotive R&D for Design, Development and Testing** of Electromechanical & Electronic automobile components.
* Paper on **“Vibration based Fault Diagnosis of Automobile Hydraulic Brake System using Fuzzy Logic with Best First Tree Rules”** is published in “International Journal of Vehicle Structures & system”.
* Worked as an intern at “**TATA Enterprise TAL Manufacturing Solution Limited, Pune”**.
* Worked as an intern on research-based project- **“Fabrication of Valve Less Micro-Pump at IIT Bombay”**.
* Working as Jury Member for **“National Level Hybrid Vehicle Challenge Competition”** organized by Imperial Society of Innovative Engineers (ISIE).
* Secured Highest Scooter Riding Skill Card at Hero **Hero MotoCorp Ltd. Key Expertise**

**Design, Development and Testing (Automobile Section - R&D)**

* Overall 1.6 years of working experience in **Automotive R&D for Design, New Product Development, Test Standardization, Process Enhancement, System Integration, Electrical Components Testing and Validation** of Electromechanical & Electronic automobile components like alternator, RR, fuel unit, fuel pump, CDI, TCI, ECU etc.

# Sound Technical knowledge about Automobile and automotive system design, development and Testing.

* Extensive knowledge in Development of Electromechanical & Electronics parts for vehicle with homologation correspondence and system level requirements.
* Experience in Testing Standards for electrical components
* Design and development of fixture for vehicle component testing.
* Experience in failure analysis in fields of different electromechanical components through design validation and corrective action implementation.
* Improved the existing model design with ideas to reduce the warranty failures.
* Project handling capability for complete vehicle development experience in 4 models.
* Exposure in executing Process Enhancement in the product development in R&D.
* Well familiar with MS-Office products.
* Well aware about modeling software: AutoCAD10.0, CATIA-V5, Solid-Word, MATLAB, LABVIEW and PLC.
* Possess communication, interpersonal and project management skills.
* Good problem solving and decision-making capabilities.

## Working Experience

**Hero MotoCorp Ltd (R&D) Development and testing August 2017**

**Jaipur Deputy Manager (Automobile) Present**

* Involved in **new product development and testing** (from proto stage till mass production) of different engine & body electrical parts used in two wheelers such as ECU, alternator, fuel unit, fuel pump, RR as a Cross Functional Team (CFT) member from R&D.
* **Conceptual Documentation**- To understand and study different electrical parts in present vehicles. As per future market condition, to study and preparation of conceptual parts and assembly in the form of documents with discussion of different Department. Documentation for conceptual vehicle based on different aspects like Models for different Country, Model as per emission norms (Bharat stage and Euro), Models different age group, hybrid technology and electrification in the Models.
* Responsible for **SOP of different components** as per provided time by meeting desired cost and quality parameters.
* **Communication with vendors** regarding different documents like SOR, DFMEA, drawing & specifications related with different electrical & electronic components for new product development.
* Involved in **Quality Audit** conducted at vendor end for inspection of manufacturing & testing capabilities.
* **Performance & Durability testing and validation** of various Electrical & Electronic Components like Starter motor, Alternator (Magneto), Ignition Coil, Switches, CDI, RR, Speedometer, Headlamp, Relays, Battery, horn, Mobile socket, Boot light, all sensors etc. used in two wheelers.
* Good knowledge in Vehicle Electrical System like charging system, starting system, Lighting system.
* Working knowledge of **Electronic measuring instruments** like Oscilloscope, Multi-meter, Power Source Supply, Function Generator, LCR meter, Current probe, Data logger, IR camera etc.
* Well acquainted with V**arious durability test** rigs like Environmental Chambers, Shower Chamber, Dust Chamber, ACG test rig, Vibration & resonance test rig etc.
* Testing & Data generation of electrical components on component and vehicle level.
* Responsible for **benchmarking of electrical component** of the competitor’s product, capturing the positive aspects, differentiating those based on performance and cost effectiveness and checking the feasibility of implementing those in inhouse products.
* Anchoring erection & commissioning of equipment and ensuring completion of project in minimum turnaround time with effective resource utilization to maximize the production output.

## Project-Internship

**TATA Enterprise TAL Manufacturing Ltd, Pune Project Trainee Sep 2016 – May 2017**

* Studied the different types of Robot like Multi-Axis and Their components also studied the working principle of Robot those are used for Industrial application.
* Studied the detail Design process for Robot and understood the different programming command used for Robot functionality.
* Studied the Hands-on Experiences about MATLAB and LABVIEW.
* Studied the Performance and reliability measurement process for robot and some Mechatronic systems.

## Indian Institute of Technology, Bombay Project Trainee April 2016 – July 2016

* Successfully completed INUP Hands-on Training Workshop on Nanofabrication Technologies at IIT Bombay.
* Studied the concepts of Nanotechnology and understood the future requirements and scope about nanotechnology.
* Hands on Experience in the fabrication of Nano valve less Pump using different Micro and Nano machineries.
* Understood the process and different techniques used for Nano-fabrications.

## M.Tech Thesis

* ***“Design, Fabrication and Development of Torque Measuring Test Rig for Motors”* at TAL, Ltd Pune.**

To know the performance of robot some criteria need to be measured like repeatability in the output result, the motor torque available at the robot joint, accuracy and precision. Hence, different test rig required to check and measure the performance. Motor torque is available at robot joint need to check by using different methods like the statistic, analytical calculation and calibration. In this experiment, design, fabrication and development of the torque test rig is done and used to carry out the torque measuring process.

## Projects during Curricular activity

* Working RBL (research based learning) on *“****Condition Monitoring of a Automotive Hydraulic Brake System****”*

during 1st semester of M.tech at VIT.

* + In this research, the performance of a machine learning approach using MATLAB fuzzy tool box for brake fault diagnosis has been reported. Our experiments show that the proposed fuzzy diagnostic system is effective in accurately predicting faults as well as the location of faults.

 Prepared a project on *“****Design, Fabrication and Testing of Composite Mono Leaf Spring”*** during last year of degree at RIT.

o In this project we perform and investigate the performance of composite material leaf spring over conventional leaf spring. To check performance of composite material leaf spring different test carried out like compression test, natural frequency test, damping test, vibration measurement test. At the end we conclude that composite material leaf spring is more efficient than conventional leaf spring for automotive vehicle.

 Prepared a mini project on ***“Modeling of Fuel Pump on Catia”*** during 3rd year of degree

## Training and Certification

* Successfully completed Garage training at “Thorat Agencies, Karad”.
* Successfully completed industrial training at “Turning Point Industries, Karad”.
* Completed workshop on “Vehicle Dynamics” organized SAE INDIA at ARAI.
* Completed Certification course in AutoCAD 10.0, Solid-Work and CATIA-V5R17.
* Completed 10 days Certification course on INFOSYS soft skill program.
* Member of SAE India, ISTE and nature-club.

## Technical Skill

* **Simulation software**: Ansys13.0, Simulink
* **Modeling software**: AutoCAD10.0, CATIAV5R17, Solid-Work
* **Scripting Language**: MATLAB, LABVIEW, PLC

## Extra-curricular activities

* Secured Highest Scooter Riding Skill Card at Hero **Hero MotoCorp Ltd.**
* Worked as Co-Ordinator in khyamera 2k13 and Quantum event held at RIT, Rajaramnagar.
* Worked as Organizer member in SAE College club at RIT, Rajaramnagar.
* Performed in colleges Event as a part of Dancer Group.

## Domain of Interest

* Automotive system design and development (Mechanical and electrical), Vehicle Dynamics.
* Testing of Different Automotive system (Electric, Electro-Mechanical and Mechanical)
* Design and Development of fixture for any component testing.
* Robot Design and Different Mechatronics System Development.