

Micheal Ashwanth Rosario Vazhava Rayen

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Creative and ethical designer with mechanical engineering knowledge. MSc Motorsport Engineering graduate from Oxford Brookes University. State of the art in mechanical design of 3D CAD models with multiple software packages and investigating aerodynamic forces acting on it. Adaptable to work under pressure with zero defect.

EDUCATION & QUALIFICATIONS

Oxford Brookes University - MSc Motorsport Engineering (2:1) 2019-2020

Dissertation: Numerical evaluation of ground effect aerodynamics in F1 2022 car with implementation of underbody geometry as published by FIA for 2022 Technical regulations. Investigation and evaluation of Underbody Aerodynamics in F1 2022 car which generated increased downforce and reduced drag.

K.L.N. College of Engineering - B.Eng. Automobile Engineering (1st) 2014-2018

Dissertation: The project aims to reduce the effect of farming equipment cost to increase farming in urban and rural areas. Lead of the project, Designed and fabricated a low-cost reaping machine to reap crops using an affordable equipment focusing small income farmers and small-scale farming.

Mini-Project: Design engineer for a Mini-Bike of 80CC under the theme Low Cost – Low CC (LC-LCC) theme, a mini bike designed and fabricated based on Indian traffic conditions which provides sufficient mileage and cost efficient to middle class category people.

TECHNICAL SKILLS

- Design and Drafting of 2D Cad models in AutoCAD as layouts for 3D models with GD & T.
- Generated chassis design (pipework) and analysis of material strength for a Leg guard of in motorcycle as part of Crash Impact Coursework using CATIA V5. Designed and analyzed stress for Minibike chassis frame.
- Solidworks Proficiency in 3D modelling of part models and assembly. Mechanical design of serrated F1 rear wing on behalf of Aerodynamic coursework. Designed and analyzed chassis and crank rod mechanism for Herbster with sheet metal design of body. Design of F1 2022 car by referencing Technical regulations of FIA for my PG Dissertation.
- Analysis of ground effect aerodynamics for F1 2022 CAD model using Star CCM+, the results were favorable by generating high downforce and reduced drag. The CAD model was simulated under varying yaw angles, ride heights and slipstreaming of two cars were analyzed to accumulate results.
- Design, development, testing and fabrication of Herbster and LC-LCC bike was executed by Product Life Cycle management.
- Coordinated as the team leader of UG final year project, assigned all members with tasks and motivated them to achieve excellence in each objective of the project, which enhanced my leadership ability to lead my team Herbster to win 3 awards.
- Proficient use of MS Word, Excel and PowerPoint for documentation of reports and assignments.

WORK EXPERIENCE

Student Ambassador | Oxford Brookes University, Oxford, United Kingdom Sept 2020 – present

- Undertook mandatory training in customer service, supporting as an assistant based on change of roles each month.
- Supporting Open and Applicant days as a student representative of the University, undertaking a range of roles including: campus tours, welcome and register visitors, answer questions, signpost visitors, provide general support with event delivery.
- Providing campus tours as part of University recruitment and widening participation events.

Vehicle Dynamics Engineer | Oxford Brookes Racing, Oxford, United Kingdom Sept 2019 – Sept 2020

- As a vehicle Dynamics Engineer my role is to undertake the kinematics department of the vehicle for the Formula Student 2020 Class 2 Electric Vehicle Category.
- Responsible for design and analysis of front suspension for the car in Adams software from data research and analysis of previous cars and published journals with aspire to increase the performance of the car in FS 2020.

Service Technician | Maverick Motors (SKODA Cars India Pvt. Ltd.) May 2018 - May 2019

- Liaised within a 10-member team, had a great opportunity to gather more knowledge about the vehicle. Expertise in calibration of Vehicle Suspension, Brakes, Wheels, Powertrain and Control modules. As part of Service Technician undertook occasional on-road support, Workshop maintenance and inventory management under 5S system.
- Achieved 100% customer satisfaction and excellent appraisal from my superiors for my outstanding performance with zero issues.

KEY ACHIEVEMENTS

- Newgen newton title winner of newgen newton event held by CADD Centre | Zebronics for Herbster.
- We were awarded Young Student Innovator by Lions Club Overseas – Madurai for the concept of Low cost to be affordable by farmers.
- Was honored with special prize for Herbster in terms of Made in India initiative.
- Fabricated a mini bike of 80cc for the event ride2k16, I designed the chassis of the bike. We bagged the Best Remodeled Bike award for creativity.

INTERESTS

- Motorsport Enthusiast. Inspired by Niki Lauda and Michael Schumacher.
- A player in the school cricket team. RH Batsman/Seam Bowler. A game defined by strategies, team spirit and multi-role. Single-handedly won a match by taking 3 wickets in the final over.
- Long trip Motorcycle rider. Member of Royal Pandiyas – Royal Enfield Club.

REFERENCES

References available upon request.