

# D.M.H. HIRAN SANDESH RAJASURIYA

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A Mechanical Engineering Graduate interested in vehicle power-train development. Recently, been working on renewable energy applications for sustainable transportation.

Research Interests:

Combustion and Environment

Alternative Fuels

Renewable Energy

Mechanical Design

## EDUCATION

### University of Moratuwa, Sri Lanka

B.Sc. Eng. in Mechanical Engineering (First Class Honors)

Dean's List in Semesters: 4,7,8

Dec 2018 - July 2023

Cumulative GPA: 3.8/4.2

### Nalanda College, Colombo 10, Sri Lanka

G.C.E. Advanced Level (Physical Science Stream)

(Top 1% out of ~35000, Nationwide university entrance examination)

Jan 2015 - Dec 2017

4As / Z-score - 2.0865

## WORK EXPERIENCE

### Research Engineer - Mechanical

Department of Materials and Mechanical Technology, Univesity of Sri Jayewardenepura

Aug 2023 - Present

Sri Lanka

### Trainee Mechanical Engineer

Diesel and Motor Engineering (PLC)

Mar 2022 - Aug 2022

Sri Lanka

## PROJECTS/ RESEARCH/ PUBLICATIONS

### Renewable Energy Access for Conversion of Tuk-tuks (REACT)

Research Project funded by Innovate UK, collaboration with University of Surrey (UK), Alta Vision Solar (PVT) Ltd (SL).

Aug 2023 - Present

**D.M.H.H.S. Rajasuriya**, T.P.D. Pieris, N.P. Dassanayaka, W.R. de Mel, H.R. Jayetileke, O.A.P.C. Oruthota, and W.H.P. Sampath; *Assessing the Viability of Renewable Energy Integration in Battery Swappable Conversion Kits for Tuk-tuks in Sri Lanka*, The 8th International Conference on Green Energy and Applications (ICGEA) 2024, Singapore. (Conference presentation, Paper accepted for publication)

**D.M.H.H.S. Rajasuriya**, T.P.D. Pieris, N.P. Dassanayaka, W.R. de Mel, H.R. Jayetileke, O.A.P.C. Oruthota, and W.H.P. Sampath; *A Feasibility Study of Renewable Energy Access for Battery Swappable Conversion Kit for Three-Wheelers in Sri Lanka*, International Conference on Innovation and Emerging Technologies (ICIET) 2023, University of Sri Jayewardenepura, Sri Lanka.

(Extended Abstract, Conference presentation)

[Conference proceedings](#)

### Investigating Vehicle Yaw Stability with Active Steering and Torque Vectoring

*Self Initiated Undergraduate Research*

Aug 2022 - Present

[Thesis](#)

R.P. Herath, **D.M.H.H.S. Rajasuriya**, N.P. Dassanayaka, U.L.S. Perera, J.R. Gamage, L.U. Subasinghe; *Vehicle Yaw Stability Control System with Torque Vectoring and Active Front Steering*, Moratuwa Engineering Research Conference 2024 (MERCon 2024), University of Moratuwa, Sri Lanka. (Under review)

### Undergraduate Course Projects/ Simulations

[Repository](#)

## NOTABLE ACHIEVEMENTS

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**Winner** - Best Presentation in Automotive Track (Graduate) at ICIET 2023, organised by Faculty of Technology, University of Sri Jayewardenepura (SL) Nov 2023

**Winner** - The Migara Ratnatunga Trust Awards on Industrial Training for University Undergraduates - 2021 / 2022 (Field - Mechanical Engineering) , presented by Institution of Engineers Sri Lanka (IESL) Aug 2023

## SKILLS

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**Programming Languages:** C++, MATLAB,  $\text{\LaTeX}$

**Software:** SolidWorks, SolidEdge, Technomatrix Plant Simulation


**Languages:** English (IELTS Academic 7.5/9), Sinhala (Native)

## VOLUNTEER EXPERIENCE / LEADERSHIP

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**Treasurer** - Rotaract Club of Alumni of University of Moratuwa Jul 2023 - Present  
Handling financial assests of the organisation. Budgeting and preparation of all financial statements.

**Director of Finance** - Rotaract Club of University of Moratuwa Jul 2021 - June 2022  
Management of large-scale project budgets. Preparation of all financial statements.

**Co-Director Environmental Services** - Rotaract Club of University of Moratuwa Jul 2020 - June 2021  
Coordinating and managing projects carried out under the Environmental Services avenue.  
Project Zooxanthellae replantation of corals. [Article](#) 

**Examiner/ Laboratory Instructor/ Translator** - Sasip Institute, Sri Lanka Dec 2017 - Sep 2018  
Worked at the Sasip-Assignment-Centre which conducts mock examinations and provides laboratory facilities to conduct Physics practicals for G.C.E. Advanced Level students.

*\*References available upon request*