

NALIKA ILUKPITIYA

MECHANICAL ENGINEER

Email: nalikailukpitya@seu.ac.lk

Phone: +94 714295633

LinkedIn: Nalika Ilukpitya

EDUCATION

BSC (HONS) IN MECHANICAL ENGINEERING | UNIVERSITY OF MORATUWA | (WASHINGTON ACCREDITED DEGREE)

Second Class- Upper Division

University of Moratuwa

OCT 2018 – JULY 2023

SECONDARY EDUCATION | ADVANCED LEVEL

Devi Balika Vidyalaya – Colombo 08 AUG

2017

EXPERIENCE

LECTURER (PROBATIONARY)

Department of Mechanical Engineering, South Eastern University of Sri Lanka

JAN 2025 – PRESENT

As a Lecturer (Probationary), I am engaged in teaching Applied Thermodynamics, Applied Mechanics under the Mechanical Engineering undergraduate course.

MECHANICAL ENGINEER

Eco Flow (Pvt) Ltd

SEP 2024 – DEC 2024

As a Mechanical Engineer at Eco Flow, I was tasked to perform Energy System calculations and I also engaged in several Engineering projects and Energy Audits in HVAC.

RESEARCH ASSISTANT

Department of Mechanical Engineering, University of Moratuwa

AUG 2023 – MAY 2023

As a group of three Research Assistants, we worked on further developments of our own final year project, '**Design and Development of an indoor solar thermal cook stove**' in collaboration with a manufacturing facilitator from the industry. Moreover, the design of the cook stove is also **in the process of patenting**.

We as a Group of researchers, represented University of Moratuwa at **9th International Conference on Advances on Clean Energy Research (ICACER 2024)** held in Lille, France from 27th to 29th April 2024.

The Conference paper publication was published on **Springer book series (Trends in Clean Energy Research)** on 21st September 2024.

VISITING INSTRUCTOR

Department of Mechanical Engineering, University of Moratuwa

AUG 2023 – DEC 2023

Immediately upon the completion of Academic work, I was absorbed to the Department of Mechanical Engineering, University of Moratuwa as a Visiting Instructor to cover the practical of Manufacturing Engineering, Mechanics of Machines, Industrial Automation and Fluid Power Systems and Machinery.

TRAINEE MECHANICAL ENGINEER

Camso Loadstar Central Engineering Division

MAR 2022 – AUG 2022

During the period of internship, I was engaged in several ongoing projects in which I could contribute and acquire practical knowledge and skills on Conceptual Designing and Detailed Designing, Manufacturing and Fabrication procedures, Project management, Reliability Centered Maintenance (RCM), Hydraulic and Pneumatic systems, Motor winding and Industrial Automation.

KEY PROJECTS

DESIGN / RESEARCH PROJECT | DESIGN AND DEVELOPMENT OF AN INDOOR SOLAR THERMAL COOK STOVE

Graduate Research Project | Final Year Project

CLASS PROJECT | FEASIBILITY STUDY (GROUP)

Analyzing the feasibility of renovating an abandoned manufacturing facility and creating job opportunities for the surrounding people under Industrial Project management

A GAS CYLINDER CARRYING MECHANISM DEVELOPMENT PROJECT (GROUP)

An innovative design for carrying a gas cylinder from the store to a house with steps under Industrial Product, Machinery and Equipment Design

INDUSTRIAL AUTOMATION PROJECT (GROUP) | SCADA

The project involved designing a small scale temperature control system using SACADA

DESIGN PROJECT (INDIVIDUAL) | A COMPLETE GEAR BOX DESIGN FOR A BARGE CONVEYOR

Detailed calculations and solid modeling were done to design a gearbox with three forward gears and one reverse gear

PRODUCTION AND OPERATIONS MANAGEMENT PROJECT (GROUP) | A WAREHOUSE DATA ENTERING SYSTEM

Studying and analyzing an industrial facility | identifying a problem | proposing solutions in a simulation-based approach

SOCIAL COMMUNITY PROJECT (GROUP)

Studying SMEs | identifying their issues | suggesting solutions | field visits and interviews

REVERSE ENGINEERING PROJECT (GROUP) | AN IRONING BOARD

Basic measuring instruments | Assessment of surface texture | Milling, Drilling, Shaping, Grinding operations | Heat treatment | Cutting parameters using Lathe Tool Dynamometer

LANGUAGES

- English
- Sinhala
- Tamil

SKILLS

- Research & Development
 - Engineering software skills (AutoCAD / SolidWorks / Ansys Workbench / Tecnomatix Plant Simulation software)
 - Leadership and team coordination skills
 - Public relations skills and soft skills
 - Analytical Thinking
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REFERENCE

Prof. Himan K.G. Punchihewa

BSc Eng (Moratuwa), MSc (Hong Kong), PhD (Loughborough, UK), CEng MIMechE, AMIE (SL) Professor,
Department of Mechanical Engineering,
University of Moratuwa, Sri Lanka
Office : (+94) 11 2650301 (Ext: 4513)
Email: himank@uom.lk

Dr. M.M.I.D. Manthilake

BSc Eng (Moratuwa), PhD (Loughborough, UK) Senior Lecturer,
Department of Mechanical Engineering, University of Moratuwa, Sri Lanka
Office : (+94) 11 2650301 (Ext: 4505)
Email: imanthilake@uom.lk