Limal D B Ariyarathna, MIET

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PROFESSIONAL SUMMARY

Mechanical Design Engineer with expertise in solving complex engineering challenges through innovative design. Skilled in engineering design, HVAC, CNC, and 3D printing, currently pursuing Chartered Engineer status.

PROFESSIONAL EXPERIENCE

Lecturer in Engineering | University Center Weston, UK **Sep 2023 – Present**

- Leading Electro-Mechanical Systems, Thermodynamics, Dynamics, and Structural Mechanics for BEng (University of West of England) programme.
- Providing training in MATLAB and SolidWorks for its application in design and simulation.
- Conducting labs to equip students for real-world engineering challenges while enhancing teamwork and communication.
- Writing assignment briefs and exam papers; ensuring compliance with OFSTED quality standards.

Assistant Lecturer | University of Peradeniya, Sri Lanka **Feb 2022 – Apr 2023**

- Coordinated courses on HVAC Systems Design, Machine Design, Finite Element Analysis, and 3D Modelling (CAD).
- Developed a practical course on Computer-Aided Modelling (SolidWorks) and Finite Element Analysis (ANSYS Structural, ANSYS Fluent), enhancing the curriculum with hands-on learning.
- Developed a document management website for Washington Accord Accreditation (IESL), improving efficiency and teamwork in document retrieval and storage.

Instructor | University of Peradeniya, Sri Lanka **Aug 2020 – Jan 2022**

- Conducted labs and workshops for mechanical design and control engineering.
- Developed detailed marking schemes for assignment evaluations, ensuring consistent and fair grading.

Engineering Trainee | Ansell Lanka Pvt Ltd, Sri Lanka **Mar 2019 – May 2019**

- Collaborated in PLC programming of a glove sorting conveyor to reduce the sorting time by 50%, demonstrating analytical thinking and problem-solving in industrial automation.
- Completed occupational health and safety training, ensuring a zero-accident environment and strengthening teamwork in workplace safety.

Engineering Trainee | Dynamic Technologies Pvt Ltd, Sri Lanka **Oct 2017 – Jan 2018**

- Designed a low-bed silo carrier, reducing the total transport height by 300 mm.
- Designed and fabricated a hydraulic press frame, doubling its capacity from 20 to 40 tonnes.
- Operated the CNC plasma cutter using FastCAM and FastNEST software for precise sheet metal cutting, applying attention to detail and technical accuracy.

PROJECTS

Testing of Hull Reservoir Wave Energy Device **Jan 2023 – Jun 2023**
Research project conducted at University of Peradeniya

- Calibrated the data acquisition system for accurate experimental results.
- Utilized LabVIEW for data acquisition and applied Fast Fourier Transform (FFT) analysis in MATLAB for signal filtering, showcasing problem-solving skills in signal processing.

Design of Seeding and Fertilising Machine **Jan 2021 – Feb 2021**
Collaboration Project with the Agriculture and Industry Department, Sri Lanka

- Designed a fully assembled machine to mechanise seeding and fertilising, enhancing efficiency and productivity.
- A fully assembled machine was successfully manufactured and commissioned in Sri Lankan fields reducing seeding and fertilizing time by 100%, demonstrating leadership in project execution.

Computational Modelling of an Archimedes Screw Turbine **Jun 2019 – Jul 2020**
Undergraduate group project

- Simulated a CFD model of an Archimedes screw turbine in Simcenter STAR-CCM+.
- Compared the turbine efficiency for various geometries and flow conditions.

Design of the Automatic Medical Glove Packing System **Mar 2019 – May 2019**
Industrial internship project at Ansell Lanka (Pvt) Ltd., Sri Lanka

- Developed an ABB IRB 360 automated glove packing system, reducing manual labour by 400%.
- Minimized physical jolts by implementing motion functions in 'RAPID' programming language.

Design and Testing of a Low Cost Hydrogen Fuel Cell **Sept 2018 – Feb 2019**
Undergraduate individual project

- Designed and fabricated a low-cost experimental rig to test voltage variation with pressure.
- Tested the performance of the electrolyser using different combinations of electrodes and electrolytes.

ENGINEERING SKILLS

Software

- **CAD** : SolidWorks, Solid Edge, AutoCAD, Autodesk Inventor, Siemens NX
- **Simulation** : MATLAB, Festo FluidSIM, COMSOL Multiphysics, STAR-CCM+, LabVIEW (National Instruments), ANSYS, Siemens LOGO
- **Office Suite** : Word, Excel, PowerPoint, Project.

Technical Skills & Soft Skills

- **Manufacturing**: CNC Programming and Operation, 3D Printing, GD&T
- **System Design** : Mechanical Design, Thermal Systems Design, Control Systems Design, PLC Programming
- **Soft Skills** : Teamwork and Collaboration, Communication, Time Management, Adaptability

EDUCATION

BSc in Engineering (Mechanical Engineering) **Nov 2015 - Jul 2020**
University of Peradeniya, Sri Lanka

GPA 3.9/4.0 (First Class Hons) | Best Performance in General Programme of Engineering (2015)

QUALIFICATIONS & CERTIFICATIONS

- **Project Management** : Lean Six Sigma – Green Belt
- **Design** : SOLIDWORKS CAD Design Associate (CSWA)
- **Teaching** : Level 3 Award in Education and Training

MEMBERSHIPS & LICENSES

- **Memberships :** Member of Institute of Engineering and Technology (MIET)
  Associate Member of Institute of Engineers, Sri Lanka (IESL)
- **Licenses :** UK Full Driving License

References Are Available Upon Request