

Kavindu Pasan Jayathilaka

BSc (Hons) Mechanical & Manufacturing Engineering (SL)

PGDip Manufacturing Systems Engineering (SL)

MSc Project Management (UK)

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PROFILE

- Results-driven **Mechanical Engineering graduate** and **Academic Professional** with strong experience in **laboratory operations, engineering education, teaching & technical support** across **higher education** and **international school environments**.
- **5+ years of experience** in managing **university level laboratories** for Engineering Mechanics, Thermodynamics, Fluid Dynamics, and **high school level** Physics and Chemistry laboratories, ensuring operational reliability, safety compliance, and high-quality learning delivery.

CAREER SUMMARY

Lab Technician – Physics/Chemistry (3+ years | full-time)

(Aug 2023 – Present)

ADNOC Schools – Ruwais Branch, Abu Dhabi, UAE

Key Experiences:

- Laboratory Operations & Management
- Student Support & Engagement
- Teaching & Instructional Support
- Technical & Administrative Support

Lab Instructor – Mechanical Engineering (~02 years | full-time)

(Sep 2020 – Jul 2022)

University of Sri Jayewardenepura, Colombo, Sri Lanka

Key Experiences:

- Teaching & Instructional Delivery
- Laboratory Operations & Technical Management
- Student Learning & Academic Support
- Safety & Compliance
- Data, Research & Reporting

Maintenance Engineer (4 months | Undergraduate Internship)

(Jan 2019 – Apr 2019)

Cable Solutions (Pvt) Ltd, Kadawatha, Sri Lanka

Key Experiences: Maintenance & Manufacturing Operations, Technical Documentations, Audits and Safety

Mechanical Engineer (4 months | Undergraduate Internship)

(Nov 2017 – Feb 2018)

Hitech Solutions (Pvt) Ltd, Kadawatha, Sri Lanka

Key Experiences: Engineering Design & CAD, Technical Engineering Work, Documentation & Supervision

EDUCATION

Master of Science in Project Management (UAE Recognized/APM Accredited) (2024-2025)
University of Bedfordshire, United Kingdom
Key Subjects: Project Management, Supply Chain Management, Risk Management, Project Strategy, etc.
Thesis Title: “Agile Project Management Practices in Implementing Modern Learning Management Systems within Middle Eastern Higher Education: Insights from Post-Pandemic Digital Transformation”

Postgraduate Diploma in Manufacturing Systems Engineering (2022- 2024)
Faculty of Engineering, University of Moratuwa, Sri Lanka
Key Subjects: Manufacturing Processes, CAD, CAM, Industrial Management, Product Design, Production and Operations Management, Sustainable Manufacturing, Quality Management, Human Factors Engineering

Bachelor of Science (Honours) in Engineering (UAE Recognized/Certified) (2016 – 2020)
Faculty of Engineering, University of Ruhuna, Sri Lanka
Major: Mechanical and Manufacturing Engineering
GPA – 3.21 (Honours degree accredited by Washington Accord)
Key Subjects: Engineering Mathematics, Programming, Thermodynamics, Fluid Mechanics, Material Science, Machine Design, Control Systems & Mechatronics, Electrical Engineering, Energy Technology, CAD & CAM, Automobile Engineering, Refrigeration & AC, Engineering Economics, Engineering Ethics

GCE Advanced Level Examination – Science Stream (English Medium) (Aug 2014)
Results: Physics - A | Chemistry - A | Combined Mathematics - C

GCE Ordinary Level Examination (English Medium) (Dec 2011)
Results: Eight A grades (subjects including Science, Mathematics, English, etc.)

KEY SKILLS

Management & Professional Skills

- Familiarity with digital transformation in education and LMS implementations.
- Technical project supervision, team coordination, and cross-functional collaboration.
- Project planning, risk management, stakeholder communication & report writing.

Digital & IT Skills

- MS Office 365 (Word, Excel, PowerPoint – Advanced), Google Workspace
- Cloud systems, AI-assisted tools, digital documentation and workflow systems
- Programming and CAD Software (MATLAB, SolidWorks, and engineering software tools)

Soft Skills

- Strong communication, problem-solving, analytical reasoning and decision-making
- Time management, multitasking, adaptability, teamwork, discipline and organizational skills

LANGUAGES

English: Fluent (IELTS Academic Test Score: **6.5** – Feb 2022)
Sinhala: Native

PROFESSIONAL EXPERIENCES

Lab Technician – Physics/Chemistry (3+ years | full-time) (Aug 2023 – Present)

ADNOC Schools – Ruwais Branch, Abu Dhabi, UAE - www.adnoc.sch.ae

An American Curriculum School network in Abu Dhabi under ADNOC Oil and Gas Group.

Duties and Responsibilities:

- Prepare equipment, chemicals, and materials for lab sessions, ensuring laboratory functionality.
- Supervise students during lab sessions, prioritizing safety and procedural understanding.
- Assist teachers in lab experiments, equipment handling, and planning laboratory activities.
- Provide guidance and support to students in conducting experiments and learning practically.
- Cover classes (science subjects) during teacher absences, delivering prepared lessons and activities.
- Create or modify lab experiments to align with curriculum objectives and available resources.
- Provide technical support for student projects, advising on methods, equipment, and materials.
- Ensure compliance with health and safety regulations, from material handling to chemical disposal.
- Inspect and maintain lab equipment, arranging/performing repairs or replacements when needed.
- Manage laboratory inventory, ensuring optimum stock levels and replenishing supplies timely.
- Implement and manage digital Laboratory Management Systems for operational efficiency & reliability.

Lab Instructor – Mechanical Engineering (~02 years | full-time) (Sep 2020 – Jul 2022)

University of Sri Jayewardenepura, Sri Lanka - www.sjp.ac.lk

A top state university known for its academic excellence and research contributions.

Laboratories Assigned:

- Thermodynamics Laboratory
- Engineering Mechanics Laboratory
- Fluid Dynamics Laboratory

Duties and Responsibilities:

- Conducted laboratory sessions for students, assessed their submissions, and provided feedback.
- Prepared laboratory materials and equipment for experiments, ensuring availability and functionality.
- Maintained, calibrated, and troubleshooted laboratory equipment to ensure optimal performance.
- Monitored and managed inventory of laboratory supplies, placing timely orders for replenishment.
- Involved in planning of lab experiments, including developing detailed protocols and procedures.
- Trained and supported faculty, students, and staff in the usage of laboratory equipment and materials.
- Conducted review sessions and discussions to enhance student comprehension of lab experiments.
- Collected, analyzed, and recorded experimental data; prepared detailed reports and presentations.
- Maintained accurate document records, ensuring compliance with safety and regulatory standards.
- Conducted routine safety inspections and ensured laboratory facilities met all the standards criteria.

Maintenance Engineer (4 months | Undergraduate Internship) (Jan 2019 – Apr 2019)

Cable Solutions (Pvt) Ltd, Sri Lanka - www.cablesol.com

Cable Solutions is a leading manufacturer of export quality cables and wires.

Assigned at maintenance department and involved in activities such as:

- Preventive maintenance, corrective maintenance, breakdown maintenance.
- Basic energy auditing, tool auditing, 5S methodology and documentation.
- Wire and cable manufacturing processes and related machinery.

Hitech Solutions (Pvt) Ltd, Sri Lanka - www.hitech.lk

Hitech Solutions is a leading engineering and research organization in Sri Lanka.

- Experienced and involved in machine designing, fabrication and modification.
- Performed 3D modelling and 2D drawings using SolidWorks™ CAD software.
- Familiarized in installation, operation & maintenance of mechanical products.
- Gained hands-on experience on electrical, pneumatic and hydraulic systems.
- Involved in general supervision of minor staff and basic documentation tasks.

KEY PROJECTS & PUBLICATIONS

Design of Hybrid Blade Profile for Stand-alone Wind Turbine Systems

Published at 15th International Research Conference, KDU 2022 (Publication ID: 262)

Project Overview: Developed and optimized a hybrid blade profile for vertical-axis wind turbine (VAWT) systems to enhance aerodynamic performance and address low starting torque challenges.

- **Aerodynamic Optimization:** Analysed existing hybrid blade profiles and implemented modifications to harness both lift and drag forces more effectively.
- **Simulation & Design Tools:** Utilized SolidWorks™ for CAD modelling and Ansys® Fluent for CFD simulations to evaluate fluid flow and optimize blade performance.
- **Prototype Development:** Fabricated the optimized blade profile and tested it using a custom-built turbine apparatus to validate simulation results.

Evaluating Agile Project Management Practices in Implementing Modern Learning Management Systems within Middle East Higher Education: Insights from Post-Pandemic Digital Transformation

MSc Project Management Thesis, University of Bedfordshire

Research Overview:

- Conducted an in-depth qualitative multiple-case study examining how Agile Project Management practices are applied in Learning Management System (LMS) implementation projects across Middle Eastern higher education institutions.
- The research analysed post-pandemic (2020–2025) digital transformation trends, identifying adoption patterns, effectiveness outcomes, and cultural or organisational constraints influencing Agile utilisation. Developed the concept of “Hybrid Agility”, demonstrating how Agile methods adapt within hierarchical, accreditation-driven academic environments.
- Findings provide region-specific recommendations for improving Agile-based digital transformation strategies, enhancing stakeholder engagement, and strengthening LMS deployment success across Higher Education institutes.

Identification of the Comfortable Zone in an Air-Conditioned Room Based on Room Dimensions and A/C Unit Position

Published at 15th International Research Conference, KDU 2022 (Publication ID: 152)

Project Overview: Conducted an experimental and simulation-based study to determine the psychrometric comfort zone of an air-conditioned room by evaluating temperature and humidity distribution relative to room geometry and A/C unit placement. Collected field measurements, visualized 3D data using MATLAB®, and simulated airflow and thermal behaviour using SolidWorks® SimulationXpress™.

PROFESSIONAL MEMBERSHIPS

Associate Member – Institution of Engineers Sri Lanka (IESL), SL

Membership Number: **AM-26872** (Membership Verification - www.iesl.lk)

IESL is the apex national body of engineers in Sri Lanka, ensures international recognition & standards in the professional practice and engineering education.

Affiliate Member – Institution of Mechanical Engineering (IMechE), UK

Membership Number: **80384850** (<https://www.imeche.org>)

IMechE is an independent professional association and learned society headquartered in London that represents mechanical engineers and the engineering profession.

Student Member – Associate for Project Management (APM), UK

Membership Number: **P0621135** (www.apm.org.uk)

APM is the chartered membership organisation that provides membership, qualifications, events and publications for project professionals.

AWARDS & HONORS

2nd Place – CADVortex Competition

(Dec 2018)

Mexcellence 2018, organized by IMechE Ruhuna Chapter, University of Ruhuna

A competitive CAD event involving reverse engineering, 3D modelling, assembly design, stress simulation, and technical drawing generation using SolidWorks, completed under time-bound criteria.

1st Runner-Up – CAD EAGER Competition

(Oct 2018)

Institute of Engineers Sri Lanka (IESL) – Young Members Section (YMS)

National-level CAD competition for engineering undergraduates, assessing advanced skills in 3D solid modelling, assembly design, simulation, and 2D drafting using SolidWorks.

VOLUNTEERING

Physics Teacher (Part-time – Volunteer)

(Feb 2015 – Jan 2016)

Taxila Central College, Horana, Sri Lanka

Volunteered to the school I graduated as a part-time Physics teacher (English medium), supporting advanced-level students with seminars, theory lessons, exam preparation, and practical demonstrations.

PERSONAL INFORMATION

Nationality: **Sri Lankan**

Date of Birth: **1995/05/10**

Gender: **Male**

Civil Status: **Single**

REFERENCES

Available upon request.

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