

K.L.DILAN THUSITH PREMARATHNA

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PROFESSIONAL SUMMARY

Materials Technologist and B.Eng. (Hons) Graduate-to-be from Rajarata University of Sri Lanka, having successfully completed all academic requirements. Specializing in the lifecycle of polymers, metals, and ceramics, I bring six months of intensive industrial experience as a Quality Assurance Technician at Hayleys Fabric PLC, where I focused on large-scale manufacturing, QMS analysis, and process optimization. Adept at material characterization and quality control, I am proven in leveraging digital tools and AI to streamline research and industrial workflows.

PROFESSIONAL EXPERIENCE

Global System Solutions International (Pvt) Ltd QAT(Quality Assurance Trainee)

January 2020 - July 2021

Demonstrated exceptional discipline by supporting nationwide operations within a fast-paced industrial environment . Played a pivotal role in enhancing operational reliability through the execution of standardized testing protocols, establishing a robust foundation in professional industry practices and quality assurance cycles .

- Supported quality assurance processes while enhancing skills in technical documentation and attention to detail.
- Strengthened problem-solving and time management abilities through hands-on experience in a professional setting.
- Developed a strong understanding of professional discipline and industry-standard workflows.
- Actively coordinated with cross-functional teams to maintain high-quality outputs, fostering a collaborative and responsible work culture.

Hayleys Fabric PLC Undergraduate Internship

June 2024 - December 2024

Successfully spearheaded quality assurance operations and technical oversight within a world-class textile manufacturing facility, ensuring 100% compliance with international standards for global apparel brands. Managed end-to-end testing protocols and process optimization initiatives to maintain high-quality production outputs and operational efficiency.

- Managed daily quality inspections to ensure fabric consistency and structural integrity.
 - Executed advanced material characterization, including spectrophotometer color matching, GSM analysis, and durability testing such as shrinkage and color fastness.
 - Conducted comprehensive Time Studies and work measurement analysis to identify bottlenecks.
 - Led systematic Root Cause Analysis (RCA) to identify and mitigate fabric defects.
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TECHNICAL & PROFESSIONAL SKILLS

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|---------------------------|----------------------------|
| • Leadership | • MS Office package |
| • Management Skills | • Solid works |
| • Multitasking | • Adobe Photoshop |
| • Problem Solving | • Graphical Programming |
| • Computer Literacy | • AutoCAD |
| • Effective Communication | • Adobe Premiere pro |
| • Critical Thinking | • Technical Report Writing |

EDUCATION

RAJARATA UNIVERSITY OF SRI LANKA

2021 - 2025

Bachelor of Engineering Technology (Hons.) in Materials Technology

(awaiting convocation) GPA:3.1/4.0

Key Subjects : Polymer . Metallurgy , Ceramic , Degradation of Materials , Thermodynamics for Materials Technology , Non Destructive Testing of Materials , Workshop Technology

University of colombo

2017

The Foundation in Information Technology (FIT)

Faculty of Humanities and Social Sciences, University of Sri Jayawardhanapura

2020

Certificate Course in English (External)

Faculty of Engineering, University of Moratuwa

2023

Foundation of Project Management

PROFESSIONAL DEVELOPMENT & CERTIFICATIONS

- Executive Diploma in Leadership and Management
- Executive Diploma in Strategy and Innovation
- Root Cause Analysis (RCA)
- Lean Six Sigma White Belt
- Failure Mode and Effects Analysis (FMEA)

RESEARCH & PROJECTS

Fabrication of Magnetite Nano-Particles via Top-Down Approach

2025 March -2025 December

Undergraduate Research Project

- Engineered high-purity magnetite nanoparticles from mineral sands for biomedical use. Optimized a ball-milling process to achieve 96% particle size reduction, verifying structural integrity and phase stability using XRD and DIA characterization to meet medical-grade standards.

Design and Fabrication of a Tensegrity Structure (Anti-Gravity Stool)

2023

Engineering Design Project

- Directed the design and mechanical assembly of a functional tensegrity stool, applying tensional integrity principles to ensure structural equilibrium. Conducted load-bearing calculations and tension-point optimization to deliver a high-strength, innovative furniture prototype.

EXTRA-CURRICULAR ACTIVITIES

"SIPMANSALA" Program

2023 & 2024

Held the role of Organizing Committee Member within the Student Union at the Faculty of Technology, Rajarata University of Sri Lanka.

"EXTRU" Exhibition

2024 & 2025

Held the role of Organizing Committee Member within the Student Union at the Faculty of Technology, Rajarata University of Sri Lanka.

MEMBER OF ASSOCIATION OF MATERIALS TECHNOLOGY (AMT - RUSL)

2023 - 2025

REFERENCES

Eng. Damith Weerasinghe M.Sc
(UoM),B.Sc Eng (UoM)
Lecturer
Department of Materials
Technology Faculty of Technology
Rajarata University of Sri Lanka
Tel: 071 0743041
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Chamara Suranga Kariyawasam
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CSK Property Management (Pvt) Ltd
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