THISAL ABEYRATHNA

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SUMMARY

An undergraduate pursuing a Bachelor of Engineering Technology Honours (BET Hons) Degree – Specializing in Industrial Automation and Robotics at the University of Kelaniya. Skilled in PLC programming, IoT, control systems, HMI development, and CAD modeling. Experienced in developing automation and control solutions through hands-on engineering projects. Currently seeking an internship in manufacturing technology to gain industry exposure and contribute to modern production systems.

EDUCATION

Bachelor of Engineering Technology (BET) Honours Degree   **2022 - PRESENT**
University of Kelaniya
(Specializing in Industrial Automation & Robotics)

PLC and Automation Certificate Course   **Nov 2024 - Apr 2025**
SLIR (Sri Lanka Institute of Robotics)

PROJECTS

Smart Alcohol Detection and Engine Locking System (Group Project)

- Developed a system to detect drunk driving, automatically locking the engine and sending real-time location and transport notifications for safety.
- [Project Link]

Vertical Reciprocating Conveyor System (Group Project)

- Designed and developed a Vertical Reciprocating Conveyor System prototype, integrating automation techniques for efficient material handling.
- Created a detailed FluidSIM diagram for pneumatic and electrical circuit simulation.
- [Project Link]

Experimental Study of Flow Rate Measurement Using Orifice Plate(Group Project)

- Designed and implemented a differential pressure-based flow measurement system using an orifice plate.
- Utilized pressure taps and flow equations to calculate fluid flow rates, demonstrating proficiency in fluid mechanics and instrumentation.
- [Project Link]

Automatic Cloth Drying System with ESP32 and Firebase

- Developed an automated clothes drying system controlled by an ESP32 microcontroller.
- Utilized Firebase for real-time data storage and retrieval, including sunlight detection, rain detection, and fan control.
- [Project Link]

PLC-HMI Based Temperature-Controlled VFD System

- Developed a system that adjusts motor speed based on temperature readings using a Siemens S7-300 PLC.
- Utilized FC105 for analog input scaling and integrated HMI for real-time monitoring and control via PROFIBUS-DP.
- [Project Link]

Modeling starmie and staryu

- Designed detailed 3D models of Pokémon characters Starmie and Staryu using SolidWorks, focusing on intricate textures and sharp-edged star shapes.
- Demonstrated combining creativity with engineering precision in a 3D digital space.
- [Project Link]

PUBLICATIONS

- [Conference Paper]

SKILLS

Ladder Programming HMIs	SolidWorks AutoCAD	Arduino Programming MATLAB	JAVA, Python, C FluidSIM	Research & Analytical Skills

REFERENCES

Dr. Laalitha Liyanage	**Dr Tharaga Sharmilan**	**Mr. Kesavan Selvarajah**
Head	Senior Lecturer	Lecturer (Probationary)
Department of Applied Computing	Department of Applied Computing	Department of Software Engineering
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