

# THISAL ABEYRATHNA

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## SUMMARY

Experienced in industrial automation, PLC programming, IoT, and control systems. Skilled in system design, troubleshooting, and sensor integration. Proficient in automation software, HMI design, and data communication. Passionate about innovation, problem-solving, and advanced control strategies.

## EDUCATION

<b>Bachelor of Engineering Technology (BET) Honours Degree</b> University of Kelaniya (Specializing in Industrial Automation & Robotics)	<b>2022 - PRESENT</b>
<b>PLC and Automation Certificate Course</b> SLIR (Sri Lanka Institute of Robotics)	<b>Nov 2024 - Apr 2025</b>

## 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.
- [GitHub: [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.
- [Google Drive: [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.
- [GitHub: [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.
- [GitHub: [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.
- [Google Drive: [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.
- [Google Drive: [Project Link](#)]

## PUBLICATIONS

- [Conference Paper](#)

## SKILLS

Ladder Programming HMIs	SOLIDWOKRS AutoCad	Arduino Programming MATLAB	JAVA, Python, C FluidSIM	Research & Analytical Skills
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## REFERENCE

<b>Dr. Laalitha Liyanage</b> Head Department of Applied Computing Director Center for Excellence in Technology Education Faculty of Computing and Technology University of Kelaniya Sri Lanka <a href="http://www">www</a>	<b>Dr Tharaga Sharmilan</b> Senior Lecturer Department of Applied Computing Faculty of Computing and Technology University of Kelaniya <a href="mailto:tharagas@kln.ac.lk">tharagas@kln.ac.lk</a>	<b>Mr. Kesavan Selvarajah</b> Lecturer (Probationary) Department of Software Engineering Faculty of Computing and Technology University of Kelaniya <a href="mailto:kesavans@kln.ac.lk">kesavans@kln.ac.lk</a>
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