

# Tenura Pinsara Pasandul

📍 Colombo, Sri Lanka    ✉ Email    ☎ +94 710 46 5979    📁 Portfolio    in TenuraPinsara    🔑 tenura2001

## About Me!

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An ambitious engineering student driven by a deep curiosity for how intelligence and machines can shape the future. I explore the intersection of AI, embedded systems, and innovation, aiming to build technologies that not only function but think, adapt, and inspire. With a forward-thinking mindset, I strive to contribute to a world where intelligent systems empower people and solve real-world challenges.

## Education

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**University of Moratuwa** Mar 2023 – Present  
*BS in Artifitial Intelligence*

**Moratu Maha Vidyalaya** 2019 – 2020  
*GCE A/L*

- Z-Score : 2.05
- **Subjects:** Physics ,Chemistry ,Combine Mathematics

## Experience

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**Intern Electronic Engineer** Colombo, Sri Lanka  
*Protonest IoT* Aug 2025 – Present

- Collaborated with senior engineers on various ongoing projects, contributing to circuit design, firmware development, and documentation.
- Gained hands-on experience with tools and platforms such as Arduino, ESP32, PCB design, and system troubleshooting.

**Robotics Mentor** Parkland1, Sri Lanka  
*RoboticGen* Feb 2025 – Aug 2025

- Conduct engaging and hands-on sessions on Robotics and IoT, tailored for both school students and university peers
- Maintain a high mentoring performance score of 97.6 reflecting consistent positive feedback and learner engagement.

## Core Competencies

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**Microcontroller Programming:** ESP32 , Atmel , STM32 , PIC

**PCB Design:** KiCad , EasyEDA , Altium

**Embedded ML:** TensorFlow Lite, Edge Impulse


**AI/ML:** Advanced EDA , LLM Fine Tune , XGBoost

**3D Modeling:** Onshape , TinkerCAD

**Software:** Python , Node-RED , C++ , C

## Projects

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**IoT Learning KIT with ESP32** - Embedded Product Design [github.com/repo](#) 

- Designed and developed a complete IoT learning kit independently using the ESP32 microcontroller. Created custom PCB designs, firmware, and structured learning modules to help students explore sensor interfacing, Wi-Fi communication, and cloud data logging
- This one will be commercial Product

**Fast Line Following Robot with PID** - Robotics [github.com/repo](#) 

- Built a high-speed line-following robot fully by myself using infrared sensors and a PID control algorithm. Designed and implemented the hardware, software logic, and PID tuning to ensure smooth and accurate line tracking for robotics competitions.

#### Hello World to TinyML - Embedded AI

[github.com/repo](https://github.com/repo) 

- Personally implemented a TinyML project from scratch by training a lightweight neural network and deploying it on a microcontroller using TensorFlow Lite for Microcontrollers. Demonstrated edge AI capabilities in real-time using embedded sensors and classification logic.

#### Smart Medibox - Embedded System and IoT

[github.com/repo](https://github.com/repo) 

- Independently created a smart medicine box equipped with alert systems, dosing schedule reminders, and IoT features. Developed the enclosure, hardware circuit, ESP32 firmware, and mobile alert integration to support elderly users in medicine management.

### Extra Readings

Foundation of Digital System Design with System Verilog  
 Artificial Intelligence in Embedded System  
 Microcontroller-Based Embedded System Design  
 Introduction to Embedded Machine Learning  
 AI Principal with Edge Computing  
 Altium Education PCB Basic Design

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### Community and Leadership

#### IES Labs - B22 President

*May 2025 - Present*

*Faculty of IT , UoM , IoT and Embedded system Research Lab*

#### CoChire - Danuma Yathra Organization

*Aug 2023 – Present*

### References

#### Mr. BH Sudantha

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#### Mr Sandushan Ranaweera

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