

Uvindu Sathyanga

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A 3rd-year Mechanical Engineering undergraduate driven by strategic thinking, innovation and a keen interest in Automation and Robotic Systems. I seek to contribute to a prestigious organization that values innovative initiatives, where I can apply my creative thinking and problem solving skills to deliver impactful and practical results.

EDUCATION

• **BACHELOR OF THE SCIENCE ENGINEERING (HONS.)** Feb 2023 – Present | University of Moratuwa, Sri Lanka
Specialization: Mechanical Engineering

• **G.C.E ADVANCED LEVEL (A/L) EXAMINATION** Feb 2022 | Mahanama Central College, Sri Lanka

- Stream: Physical Science Stream (Combined Mathematics, Physics, Chemistry)
- Results: 4A passes, Z Score: 2.1595

PROJECTS

SMART POWER MONITOR

Feb 2025 – Jun 2025

Developed an IoT based smart plug with ESP32 and Node-RED enabling remote switching, scheduling, overload cutoff and ADE9153A IC for real time metering, validated through Wokwi simulation and MQTT testing.

SMART COT

Mar 2024 – Jul 2024

Designed a mechatronics based baby cot integrating cry detection, motor driven rocking, IoT enabled camera monitoring, and temperature sensing, enhancing infant safety, comfort and sleep quality through intelligent automation and real time monitoring.

AUTOMATED PICK AND PLACE ROBOT ARM

Jul 2025 – Present

Developing a robotic arm for automated pick-and-place tasks using ESP32, emphasizing forward and inverse kinematics, trajectory planning, and motion control for accurate and precise robotic manipulation.

REVERSE ENGINEERING OF A HAND AIR PUMP

Mar 2025 – Jul 2025

Disassembled pump, performed material testing, modeled in SolidWorks, analyzed with ANSYS, and proposed design improvements for durability.

EXTRA-CURRICULAR ACTITIVES

- Organizer Dec 2023 – Sep 2025
Finance Committee Member, 'MoraForesight 3.0', and 'Open Week 2024', IEEE Student Branch of University of Moratuwa.
- Organizer Jul 2023 – Jul 2024
Committee Member, 'Heartbeat', 'OntheMap', AIESEC in Colombo South
- Member Jun 2024 – Present
Student Member, Institute of Engineers Sri Lanka (IESL)
- Volunteering Nov 2023 – Feb 2024
Volunteering and Committee Member, 'Nena Aruna', Rotaract Club

CERTIFICATIONS

- Fundamentals of Digital System Design - SkillSurf (UoM)
- Embedded and Product Development for IoT - SkillSurf (UoM)
- Control Design Onramp with Simulink - MATLAB
- Fundamentals of Generative AI - Google cloud
- C for Everyone - University of California

LANGUAGES

ENGLISH - FLUENT
Sinhalese - Fluent

SKILLS

PROGRAMMING

- C++
- Python
- MATLAB
- SIEMENS PLC(S7-200)

TOOLS & SOFTWARE

- SolidWorks
- FluidSim
- ANSYS
- ROS 2

ACHIEVEMENTS

- Interschool Uva Province Karate Meet - 2016
1st place in Katha
- Violin Visharad
Completed Diploma, Visharad I and II
- Astronomy Jounior Olympiad
Merit Ranked

REFERENCES

Dr. Lihil U. Subasinghe | PhD (NUS), BSc Eng Hons (Moratuwa, SL), CEng. MIE(SL), AMIMechE Semester 5, 6 and Industrial Training Coordinator / Senior Lecturer
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