DINETH SANDEEPA KEERTHI

MECHATRONICS ENGINEER | AUTOMATION & ROBOTICS
Bachelor of Science (Hons)
Mechatronics Engineering | SLTC Research University, Sri Lanka

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PROFESSIONAL SUMMARY

Entry-Level Automation / Mechatronics Engineer with hands-on experience in industrial automation, PLC programming, SCADA, HMI, robotics, and embedded systems. Skilled in machine automation, PLC-based control systems, sensors and actuators, pneumatic systems, commissioning, and troubleshooting electromechanical equipment. Completed internships at INQUBE Global and SLINTEC. Seeking an Automation Engineer / PLC Engineer role in a technology-driven organization.

EDUCATION

- **Bachelor of Science (Hons) in Mechatronics Engineering | SLTC Research University** *Aug 2020- Dec 2025*

Relevant Coursework: Industrial Automation | PLC Programming | Robotics & Automation | Mechatronics System Design | Sensors & Instrumentation | Industrial Electronics | Pneumatics & Hydraulics | Manufacturing Processes | Electrical & Electronic Circuits | CAD/CAM | Embedded Systems | Industrial Control Systems | Computer Systems Architecture | Fluid Mechanics | Power Electronics.

Academic & Practical Exposure:

- Hands-on experience in PLC programming, control panel design, industrial wiring, and industrial automation laboratory practices.
- Design and integration of mechanical, electrical, and embedded systems, with application of control theory, PID control, and motion control systems.

- **G.C.E. Examinations | SIRISAMAN M.M.V | Deraniyagala.** *2019 | 2014*

G.C.E. A/LEVEL : Combined Mathematics – C | Physics – C | Chemistry - S.

PERSONAL PROJECTS

- **Automated Pharmaceutical Sorting System.**

Final Year Project

- Designed an automated pill dispensing system using Raspberry Pi, Arduino, stepper motors, and sensors, integrating mechanical, electrical, and embedded systems for accurate dispensing.

- **PLC-Based Heat Press Machine Automation.**

For INQUBE Global (Pvt) Ltd.

- Automated a heat press machine using PLC control and pneumatic actuation, improving temperature control accuracy and reducing manual setup time by approximately 25%.

- **AC Servo Conveyor Sorting System.**

SLIR Academy

- Developed a PLC-controlled conveyor sorting system using an AC servo motor and pneumatic sorting mechanism, achieving consistent positioning accuracy and improving sorting cycle time by approximately 20%.

- **Grid Following Robot with Pick & Place Arm.**

SLTC Robot Club Event

- Designed and implemented an Arduino-based grid-following robot with a pick-and-place mechanism using PID control.

- **Designed, Assembled, and controlled wire inserter machine.**

For INQUBE Global (Pvt) Ltd.

- Designed, assembled, and controlled an automated wire inserter machine using PLC, stepper motor, pneumatic cylinder, and Arduino microcontroller.

PROFESSIONAL EXPERIENCE

•Brandix INQUBE Global (Pvt) Ltd *Jan 2024 – Jun 2024*

Automation Engineer Intern On - Site

- Designed and automated industrial machinery using XINJE XD3 PLCs, stepper motors, sensors, pneumatic systems, and microcontrollers, supporting multiple production-line automation projects.
- Developed a label-attaching automation system for JUKI AMS 221EN, reducing manual operation time by 30% and improving overall line efficiency and consistency.
- Assisted in PLC wiring, control panel assembly, testing, and commissioning, contributing to successful machine handover with minimal downtime.
- Performed system troubleshooting and fault diagnosis, helping reduce machine stoppages during trial and production runs.
- Contributed to the development and testing of a fully automated laser cutting machine, assisting in mechanical setup, control integration, and performance testing.

•SLINTEC (Pvt) Ltd *Oct 2023 – Dec 2023*

Maintenance Engineer Intern On - Site

- Performed preventive and corrective maintenance on electrical, mechanical, and automation systems, improving machine reliability and uptime.
- Assisted in troubleshooting PLC, motor, sensor, and pneumatic system faults, supporting faster fault resolution and reduced production delays.
- Worked closely with senior engineers during machine inspections and repairs, gaining hands-on experience in factory maintenance operations.

TECHNICAL SKILLS

•Programming Languages

C/C++ | Python | HTML+CSS

•PLC & Automation

PLC Programming (XINJE XD3) | Ladder Logic | SCADA | HMI | Industrial Automation

•Embedded Systems

Raspberry Pi | Arduino | ESP32 | ESP8266 | Sensors & Actuators

•Industrial Systems

Pneumatics | AC Servo Motors | Stepper Motors | Control Panels | Electrical Wiring | Preventive Maintenance

•Designing Software & Web Tools

SOLIDWORKS | AutoCAD | Fusion 360 | MATLAB | Proteus | PCB Design | Git | GitHub | VS Code | AI Tools

•Soft Skills

Problem Solving | Team Collaboration | Analytical Thinking | Communication | Quick Learning

CERTIFICATIONS

•CNC Machine Shop Practical Training | ACECAM Technologies(Pvt)Ltd. *Jul 2024*

–CNC Machinery Training.

–CAD/CAM software, machine setup.

–Programming (G-code, CAM software).

•Robotics & Industrial Automation | SLIR Academy , Pannipitiya. *Jan - Jun 2022*

–PCB Design.

–Micro-controller Programming.

–Industrial Automation.

–IOT & web development.

•ROAD TO CODEMANIA | SLTC Research University, Padukka. *Jan - Jan 2021*

–PYTHON Programming.

REFERENCES

References available upon request.