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Senior Automation Engineer | Automation Consultant

PROFILE SUMMARY

Senior Automation Engineer with strong hands-on expertise in PLC, HMI, SCADA, Industrial Control Systems (ICS), IEC 61131-3 programming, ISA-88 based control strategies, automation architecture, industrial networks, commissioning, FAT/SAT, control system validation, project documentation and OT cybersecurity. Strong practical experience in IEC 62443 principles, network segmentation, defense-in-depth, secure remote access, RBAC, system hardening, patch/change management, backup and disaster recovery, risk assessment and vulnerability management. Hands-on experience with MATLAB, MathCAD and AutoCAD.

PROFESSIONAL EXPERIENCE

Automation Consultant

Plant Supervision India Pvt Ltd | 2026 - Present

- Work as an automation consultant, leading engineering and design for PLC and SCADA architectures and application development.
- Review control philosophies, Functional Design Specifications (FDS), SCADA architectures, communication network designs, engineering drawings, I/O databases, technical specifications and vendor documentation.
- Develop and integrate PLC, HMI and SCADA applications using IEC 61131-3 programming practices; coordinate multidisciplinary engineering activities.
- Support electrical schematic design, engineering calculations, modelling and technical documentation using MATLAB, MathCAD and AutoCAD.

Automation Engineer

Aleb Automation | 2023 - 2026

- Led automation projects and developed control system architecture from scratch, covering PLC and SCADA design, HMI interfaces, industrial networks and control logic.
- Designed and validated industrial architectures using Profibus, Profinet and Modbus to integrate PLC, HMI and SCADA systems.
- Developed PLC and HMI applications aligned with ANSI/ISA-88 principles and configured industrial network topologies and protocols.
- Performed control system validation, tuning, parameterization, performance verification, testing, commissioning and troubleshooting.
- Led development, commissioning and optimization of hydraulic presses, tire building machines, utility systems and process-control applications, including multi-axis servo control, centralized oil distribution and cooling-water management.
- Prepared electrical schematics, control narratives, specifications, P&IDs, matrices, I/O lists and project documentation.

PROFESSIONAL EXPERIENCE (CONTINUED)

Project Engineer (Deputed)

Diligent Automation Pvt Ltd | 2022 - 2023

- Developed, programmed and commissioned PLC, HMI and SCADA systems using Allen-Bradley ControlLogix, CompactLogix and Siemens S7 PLCs, including ISA-88 control strategies, machine sequencing, motion control and recipe management.
- Modernized OEM control programs, developed centralized control architectures, integrated MES data acquisition and implemented EtherNet/IP and ControlNet networks.
- Applied IEC 62443-aligned OT cybersecurity practices, including secure controller access, authentication, RBAC, backup/version management, remote access, network segmentation and change management.
- Supported FAT, SAT and troubleshooting by verifying control logic, network communications, redundancy, alarm management, secure configurations and disaster-recovery procedures.

Technical Apprentice - Automation and Process Control

NLC India Limited (NLC Ltd) | 2021 - 2022

- Received hands-on training in control systems, DCS fundamentals and industrial automation in power and utilities environments.
- Assisted with PLC programming, logic testing and basic program modifications.
- Supported commissioning activities, I/O checking, loop testing and field instrument validation.

TECHNICAL SKILLS

Core automation: PLC programming; HMI and SCADA development; ICS; IEC 61131-3; ISA-88; control system architecture; instrumentation; commissioning; FAT/SAT; control system validation.

Platforms and networks: ControlLogix; CompactLogix; Siemens S7; OMRON PLC programming; WinCC; Ethernet; EtherNet/IP; ControlNet; Profibus; Profinet; Modbus; PLC-HMI-SCADA integration.

Engineering and programming: AutoCAD; MATLAB; MathCAD; Java; Python; electrical schematics; FDS; control narratives; P&IDs; I/O lists; project documentation.

OT cybersecurity: IEC 62443; risk assessment; vulnerability management; network segmentation; industrial firewalls; ACLs; VPN; MFA; RBAC; system hardening; asset inventory; patch/change management; backup and disaster recovery.

EDUCATION

Diploma in Instrumentation Engineering | State Board of Kerala

Higher Secondary Education (HSE) | State Board of Education

Secondary School Leaving Certificate (SSLC) | State Board of Education

LANGUAGES

Native: English, Malayalam, Hindi

Intermediate: French

Spoken only: Tamil