



# Profiance

## TECHNOLOGIES

*AUTOMATE . CONNECT . SECURE*

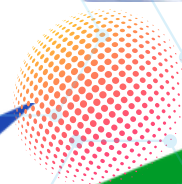


### **COMPANY PROFILE**

"When you give your faith to the future, the future reflects that faith back to you."

"The first step is to establish that something is possible; then probability will occur."

"The people who are crazy enough to think they can change the world are the ones who do."





## ABOUT US

Profiance Technologies is a 100% Indian owned and operated control system engineering company headquartered in Salem, Tamil Nadu. Founded on a commitment to engineering excellence, we operate from modern, purpose-built premises and employ a team of experienced, professional engineers who have delivered industrial automation solutions across a wide range of industries worldwide.

As a systems integration company, we specialise in control systems engineering and real-time software development across diverse hardware platforms - from the factory floor to the resource planning and management levels of large organisations. We maintain recognised systems integration relationships with the major **PLC, DCS, SCADA, HMI, VFD, SERVO, IIOT, ROBOTICS, INDUSTRIAL OT CYBER SECURITY**, and network vendors.

Profiance Technologies delivers all facets of control system engineering - from project management and conceptual design through to final site commissioning. Our trained engineering and network professionals offer custom product solutions across multiple industries, backed by a dedicated 24×7 support service.

### Industries We Served

Our solutions serve a diverse range of sectors across India, including **Oil & Gas, Pharma, Power Plant, Water Treatment, Food & Beverage, Manufacturing, Cement & Steel, Marine, Textile, Chemical & Petrochemical, Dairy Plants**, and infrastructure.

### Why choose us

A customer-focused team of certified engineers delivering end-to-end automation - from design and integration to commissioning and ongoing support. We bring vendor-neutral expertise and deep domain knowledge to every project.





### VISION & MISSION

#### High-Quality, Cost-Effective Automation

We believe every industry - large or small - deserves access to world-class automation technology. Profiance Technologies engineers solutions that are precisely scoped, competitively priced and built to last. We avoid over-engineering and unnecessary complexity, focusing instead on right-sized solutions that deliver measurable ROI. From a small VFD retrofit in a textile unit to a full DCS commissioning at a cement plant, every project receives the same engineering excellence.

#### Bridge Technology & Industry

There is often a wide gap between what automation technology can achieve and what plant operators and production managers actually experience on the floor. Profiance Technologies exists to close that gap. We translate complex PLC programmes, SCADA dashboards, servo motion profiles and IIoT data pipelines into practical, intuitive solutions that real operators can use with confidence - making the factory smarter without making it harder to run.

#### 24×7 Support - Zero Downtime

In industrial automation, every minute of unplanned downtime costs money. Our dedicated 24×7 support team is available around the clock - 365 days a year - providing remote diagnostics, rapid on-site response and proactive maintenance checks. Whether it's a PLC fault code at 2 AM, a SCADA communication dropout during a weekend shift, or a VFD trip mid-production, our engineers respond fast to get your plant back online with minimal disruption.

#### Long-Term Partnerships

We don't just deliver a project and disappear. Profiance Technologies is built on enduring client relationships founded on mutual trust, technical transparency and consistent service quality. We take time to understand each client's production goals, operational constraints and future growth plans - so we can be a strategic automation advisor, not just a vendor. Our clients return to us project after project because we treat their plant as if it were our own.

#### Continuous Skill Upgradation

Industrial automation is one of the fastest-evolving fields in engineering. New PLC platforms, collaborative robots, IIoT protocols, cybersecurity standards and AI-driven diagnostics emerge every year. Profiance Technologies invests heavily in continuous training, vendor certifications and technology partnerships to ensure our engineers are always current. When a new standard or platform becomes relevant to your industry, our team is already trained and ready - not playing catch-up.



## Technology Layers We Connect - From Sensor to Boardroom

### Level 0-1

#### Field & Control

Sensors, actuators, PLCs, DCS, VFDs, and servo drives - the physical automation layer... where Profiance Technologies does the core engineering work. We programme, configure and commission every device to perform precisely as the process demands.

**PLC, DCS, VFD, Servo, Robotics, and Field instruments.**

### Level 2

#### Supervisory

SCADA systems and HMI panels - the operator-facing layer that translates raw control data into actionable information. We design these interfaces to be intuitive, alarm-rationalised, and shift-ready for operators of every experience level.

**SCADA HMI panels, Historian, Alarm management, Trending.**

### Level 3

#### IIoT & Analytics

Edge gateways, OPC-UA/MQTT brokers, cloud dashboards, and OEE analytics - the intelligence layer that turns production data into business insight. We connect brownfield equipment to modern IIoT platforms without replacing existing hardware.

**IIoT, edgeOPC-UA, MQTT, OEE dashboards, Predictive maintenance.**

### Level 4

#### Enterprise & Security

MES/ERP integration, OT cyber security, and network architecture - connecting the factory floor to enterprise systems while protecting the OT environment from cyber threats. We design the IT/OT boundary with security-first principles.

**MES integration, ERP connectivity, OT cybersecurity, Network segmentation, VLAN design.**

### Case-Study

#### **Cement plant – kiln & cooler upgrade**

Modernised kiln and cooler PLC/SCADA, redesigned safety interlocks and optimised PID loops to stabilise draft and temperature, cutting unplanned stoppages by ~35% and boosting clinker output by about 8%.

#### **Marine – Engine Room Automation Retrofit**

Replaced ageing alarm panels with a PLC-based engine room monitoring system, integrated fuel pumps, bilge pumps and generators into a central HMI, and added data logging. Result: faster fault detection, fewer nuisance alarms, and improved compliance with class requirements on alarm handling.



## TECHNOLOGY PLATFORMS WE SUPPORT

**PLC** - Siemens, Allen Bradley, ABB, Mitsubishi, Delta, Omron, Schneider, Keyence, Emerson, Yokogawa, Fanuc, Invt, Innovance, Fuji, Panasonic, Beckhoff, Honeywell, Wecon, LS Electric, Wago, etc.

**DCS** - Siemens, ABB, Yokogawa, Honeywell, Emerson.

**HMI** - Siemens, Allen Bradley, ABB, Mitsubishi, Delta, Omron, Schneider, Keyence, Fanuc, Invt, etc.

**SCADA** - WinCC, Aveva Plant Scada, Factory Talk View Studio, GE iFIX / Cimplicity, Intouch, Ignition.

**VFD / Servo Drives** - Siemens, Allen Bradley, ABB, Mitsubishi, Delta, Omron, Schneider, Keyence, Emerson, Yokogawa, Fanuc, Invt, Innovance, Fuji, Panasonic, Beckhoff, Honeywell, Wecon, LS Electric.

**IIOT** - Siemens, Wecon, MQTT, Node Red, Edge OPC-UA.

**CYBER SECURITY** - Palo Alto Networks, Cisco Systems, Fortinet, Microsoft, Cloudflare.

**IO-Link Master Sensors** - IFM, Siemens, Festo, Balluff GmbH, Rockwell, Omron, Pepperl+Fuchs.

**ROBOTICS** - Yaskawa, ABB, KUKA.

**Cloud Connectivity** - Azure IOT Edge, Digital Twins, Aveva Connect, Rockwell Automation Factory Talk, Siemens Industrial Edge & Cloud, Litmus Edge.

## How we bridge the gap - our six-part approach

### Deep process discovery.

Before writing a single line of PLC code, our engineers spend time on your shop floor - observing the process, interviewing operators, reviewing existing P&IDs, and understanding the real production goals.

This discovery phase ensures we apply technology that solves actual problems, not theoretical ones.

### Operator-first HMI design

We design SCADA and HMI screens following ISA-101 principles - high-situation-awareness layouts with clear alarm hierarchies, intuitive navigation, and minimal cognitive load. Screens are reviewed with actual operators during development, not just at acceptance testing. The goal: any operator on any shift can run the system confidently from day one.

### Plain-language documentation

Technical manuals written by automation engineers for other automation engineers are useless to a plant maintenance team. Profiance Technologies produces plain-language O&M manuals with step-by-step troubleshooting guides, annotated screenshots, and clear fault recovery procedures - written specifically for the skill level of the people who will actually use them.

### Hands-on operator training

Every commissioning project includes a structured operator training programme - covering normal operations, alarm response, manual overrides, basic fault identification, and when to call for support. Training is conducted at your site, in the language your team is comfortable with, using your actual system - not a generic simulator.

### Brownfield IIoT integration

Most South Indian plants have significant existing equipment investment - legacy PLCs, old drives, and analogue instruments. We specialise in brownfield IIoT retrofitting - adding edge gateways, OPC-UA bridges, and MQTT data pipelines to extract real-time production data from existing equipment, without replacing it, enabling data-driven decisions at a fraction of greenfield cost.

### Technology roadmap advisory.

We act as a long-term technology advisor - helping our clients plan 3-5 year automation roadmaps that align with their production growth, budget cycles, and the direction of industrial technology. This ensures every investment builds towards a coherent, future-ready plant architecture rather than isolated point solutions that don't talk to each other.



## Our fault response process - from call to resolution

### Minute 0-10: Fault Detected

Client contacts Profiance Technologies support line

The plant operator or shift supervisor calls or messages our dedicated 24x7 support line. The on-call engineer answers directly. Client identity and system details are pulled up immediately from our records. The engineer begins gathering fault symptoms while the client is still on the first call - no hold music, no ticketing queue.

Direct engineer pickup. Client records are pulled instantly. Fault symptom capture.

### Minutes 10-30 Remote Diagnosis

Immediate remote diagnostics via secure VPN access

Using our pre-configured secure remote access infrastructure, the engineer connects directly to the client's PLC, SCADA, or network within minutes. Live programme monitoring, fault code reading, I/O status checks, and alarm history review begin immediately. "The majority of faults - software configuration issues, communication drops, parameter drift, logic errors - are diagnosed and resolved remotely without any site visit."

Secure VPN connection, Live PLC monitoring, Remote programme edits, SCADA live diagnostics.

### Within 55 minutes-Decision point

Remote resolution or on-site mobilisation decision

If the fault is resolved remotely, the engineer confirms production has resumed, documents the fault cause and resolution, and schedules a follow-up inspection if hardware degradation was identified. If on-site attendance is required - hardware failure, panel wiring issue, physical sensor fault - the engineer immediately mobilises to the site with the necessary spares and tools, targeting arrival within 4 hours for Salem region clients.

Remote resolution confirmed. On-site mobilisation <1 day. Spares dispatched.

### Post-resolution-Root Cause & Prevention

Fault report, root cause analysis, and prevention plan

Every support incident ends with a written fault report delivered to the client, documenting the fault description, root cause, corrective action taken, and recommended preventive measures. Recurring faults trigger a formal root cause analysis and system improvement recommendation, turning reactive events into proactive plant improvements. Our goal is always to resolve a fault once and permanently.

Written fault report, Root cause analysis, Preventive recommendations, System improvement plan.

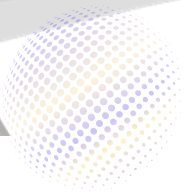
### Ongoing - Closed-Loop Monitoring

Fault history analysis and proactive maintenance scheduling

All fault events are logged in our client management system. Over time, fault pattern analysis reveals ageing components, recurring software issues, and equipment at risk of failure. This data drives proactive maintenance recommendations — replacing a drive before it fails, updating firmware before a known bug causes a trip, or recalibrating sensors before measurement drift causes quality issues.

Fault history database, Pattern analysis, Proactive maintenance scheduling.

"You want to have a future where you're expecting things to be better, not one where you're expecting things to be worse." - Elon Musk.



### WHY CHOOSE PROFIANCE ?

#### Programming

We deliver end-to-end application programming for the full spectrum of automation platforms. Our engineers write structured, well-documented code following industry standards - ensuring reliability, maintainability, and performance at every level of the control hierarchy.

PLC - Ladder Logic, FBD, STL, SCL, SFC programming  
SCADA/HMI - Tag engineering, screen development, alarming, trending & reporting.

DCS - Loop configuration, advanced control strategies & batch sequencing.

VFD & Servo - Drive parameter configuration, motion profiles & positioning routines.

Robotics - Robot teach pendant programming, path planning & cycle optimisation.

IIoT - Edge gateway configuration, MQTT/OPC-UA data pipelines & cloud integration.

#### Commissioning

Our commissioning engineers manage the complete site bring-up process - from hardware installation verification and panel loop checks through to full system integration testing and handover. We ensure every device, network, and application is validated before plant start-up.

PLC/DCS - I/O checkout, loop tuning, interlock verification & SIL validation.

SCADA/HMI - Live tag verification, communication link testing & operator acceptance.

VFD & Servo - Motor megger, direction checks, ramp profiling & speed calibration.

Robotics - Mechanical alignment, reach envelope validation & safety zone testing.

IIoT - Sensor-to-cloud data verification, latency testing & dashboard sign-off.

Network - Industrial Ethernet, Profibus, Modbus & EtherNet/IP validation.

#### Troubleshooting

Profiance Technologies provides rapid fault diagnosis and resolution for all automation and control systems. Our 24x7 support team uses systematic root-cause analysis to minimise downtime and restore production quickly — on-site or remotely.

PLC/DCS - Fault code analysis, program logic errors & hardware failure diagnosis.

SCADA/HMI - Communication loss, tag mismatch, alarm floods & display errors.

VFD & Servo - Overcurrent, overtemperature, encoder faults & drive trip analysis.

Robotics - Collision detection, calibration drift & end-effector fault diagnosis.

IIoT - Data drop-out, edge device failure & cloud connectivity issues.

Network - Packet loss, IP conflicts, switch faults & fieldbus segment issues.

#### Upgradation

We manage full lifecycle system upgrades - migrating legacy platforms to modern, supportable technology with zero or minimal production impact. Our upgrade projects are planned meticulously to protect existing process knowledge while gaining new capabilities.

PLC/DCS - Legacy migration (S5→S7, PLC5→ControlLogix), firmware upgrades & rack modernisation.

SCADA/HMI - Platform migration, screen rebuild, historian migration & cybersecurity hardening.

VFD & Servo - Drive replacement, motor re-parametrisation & new safety function integration.

Robotics - Controller upgrades, vision system retrofit & payload re-engineering.

IIoT - Brownfield IIoT enablement, sensor retrofit & OT/IT convergence projects.

Network - Industrial network segmentation, OT cybersecurity hardening & VLAN design.

#### Case-Study

##### Textile mill – VFD Energy Optimisation

Added VFDs to key motors, integrated with PLC and SCADA energy dashboards, enabling speed control based on real demand and reducing energy consumption by roughly 12 - 15%, with payback in under 18 months.



# Profiance

## TECHNOLOGIES

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### FOUNDER'S PROFILE & CREDIBILITY



**Er. R. MAHENDRAN, B.E.**  
FOUNDER & CEO



### **UNBREAKABLE STATE RECORD HOLDER**

Led by an exceptional engineer who secured an absolute perfect score of 700/700, establishing an UNBREAKABLE RECORD by winning the STATE FIRST RANK TWO TIMES IN A ROW (Dec 2014 & April 2015) in Technical Education, Tamil Nadu, India.

### HEAD OFFICE & CONTACT DETAILS



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Cement & Steel | Marine | Textile | Chemical & Petrochemical, Dairy Plants.**



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