

Mohamed Gamal Eltantawi
Industrial Automation Engineer

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PROFESSIONAL SUMMARY

Industrial Automation Engineer with hands-on experience in **PLC, SCADA, and DCS systems** across **Oil & Gas, Steel, and Cement industries**. Proven expertise in **Siemens PCS 7, S7-1500, WinCC, Ignition, and AVEVA SCADA platforms**, with solid involvement in **FAT, IFAT, SAT, and commissioning activities**. Strong background in **ICSS, SCMS, IIoT integration**, industrial networks, and control system testing. Adept at working in multicultural project teams and delivering reliable automation solutions aligned with international standards.

CORE TECHNICAL SKILLS

Automation & Control Systems

- **Siemens PLC:** S7-300, S7-400, S7-1200, S7-1500
- **Siemens DCS:** PCS 7
- **SCADA & HMI:** WinCC (Explorer, Professional, Unified)
- **Siemens Libraries:** CEMAT MINRAS, LBP (customized), APL
- **Programming and configuration:**
 - CFC, SCL, FBD
 - Interlocks, permissives, protections, and trip logic
 - PID control loops and advanced diagnostics
- **Electrical and field systems:**
 - MCCs, soft starters and VFDs
 - Industrial communication (PROFINET, PROFIBUS, Modbus and IEC61850)

PROFESSIONAL EXPERIENCE

External Assignment – Automation Engineer

Siemens Energy, UAE | Apr 2025 – Present

Salt Dome Project (Oil & Gas)

- Designed and programmed control logic using **Siemens PCS 7**.
- Participated in **Hardware FAT** for **ICSS** and **SCMS** systems.
- Attended **Integrated FAT (IFAT)** activities.
- Acted as **ICSS Engineer** during Software FAT.
- Served as SCMS Engineer during SAT and commissioning phases, where I learned and applied the **IEC 61850 communication protocol**, and tested **MVSW** and **LVSW** systems to verify proper communication and functionality.
- Developed a **Data Concentrator** integrating **LV Switchgear (LVSW)** with **SCMS** and **ICSS**, ensuring seamless system communication and operational reliability.

Site Surveys

- SHAH, HABSHAN, ASAB facilities
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Automation Engineer

Imhosys | Sep 2024 – Present

Sinai Cement Grey Plant – PCS 7 Upgrade Project, Egypt

- Supported the upgrade of Sinai Cement Grey Plant from Allen-Bradley PLCs to Siemens PCS 7 DCS using CEMAT Minerals Library.
- Developed WinCC SCADA and control logic using FBD via CFC.
- Configured Siemens controllers (S7-400, ET200SP / ET200SP HA, CPU 1512 & 1514).
- Contributed to network architecture understanding and automation material selection for Phase-3 upgrade.

Zinc Oxide Production Plant – EAFD Recycling, Egypt

- Developed and configured automation software using **Siemens S7-1500 PLC**.
- Designed and implemented **SCADA system using SIMATIC WinCC V8.0**.
- Participated in **FAT, IFAT, and SAT**, ensuring system compliance and reliability.
- Supported **commissioning, troubleshooting, and system validation** on site.

Sococim Plant – Cement Plant Project, Rufisque, Senegal

- Supported **SAT and commissioning activities** under senior engineers' supervision.
- Worked with **Siemens S7-1500 PLCs** for process automation.
- Assisted in **SCADA design and implementation using AVEVA Platform**.

General Responsibilities

- PLC, HMI, and SCADA programming and troubleshooting
 - DCS configuration and functional testing
 - Cross-functional coordination with client and project teams
 - Validation, FAT documentation, and control system testing
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EDUCATION

Bachelor of Engineering (B.Sc.) – Electrical Engineering

Mansoura University, Faculty of Engineering | Jun 2024

- Major: **Electrical Power & Machines**
- Cumulative Grade: **Very Good (82.86%)**

Graduation Project:

Automation of Power Distribution Grid for Smart Cities — Grade: Excellent

- Designed residential electrical infrastructure (concept, schematic, detailed stages)
 - Integrated smart devices to convert conventional grids into smart grids
 - Designed **on-grid solar PV systems** for residential villas
 - Implemented **grid-solar integration**
 - Developed **IIoT monitoring system using Node-RED**
 - Built intelligent **SCADA system using Ignition**
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TRAINING & CERTIFICATIONS

ADNOC H2S Training – ATA UAE | Aug 2025

ADNOC HSE Induction – ATA UAE | Aug 2025

PLC Advanced Programming – HA Consulting Group, Egypt | Jul-Sep 2023

Classic Control & Basic PLC – HA Consulting Group, Egypt | Jan–Mar 2022

Port Operations & Electrical Systems – Damietta International Port | Sep–Oct 2022

Electricity Production Training – Middle Delta Power Plant | Jul–Aug 2022

ONLINE COURSES

- Ignition SCADA – Inductive Automation University (Jul 2024)
 - IIoT (Node-RED, OPC-UA, MQTT, MySQL) – Code and Compile (Nov 2023 – Feb 2024)
 - Electrical Distribution Diploma – Online Experts (Jul–Oct 2022)
 - Project Management Fundamentals – American Chamber of Commerce (Oct 2022)
 - Schneider Electric University – 60 Electrical Engineering Courses (2024)
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TECHNICAL SKILLS

- **PLC & DCS:** TIA Portal, SIMATIC Manager, PCS 7
 - **SCADA & HMI:** WinCC, Ignition, InduSoft, AVEVA
 - **IIoT & Communication:** OPC-UA, MQTT, Node-RED, Modbus, Profibus, Profinet, IEC61850
 - **Other:** ICDL (Word, Excel, PowerPoint), Remote Collaboration Tools
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SOFT SKILLS

- Analytical & research-oriented mindset
 - Strong communication and teamwork
 - Ability to work under pressure
 - Ethical, reliable, and highly motivated
 - Continuous learner
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LANGUAGES

- Arabic: Native
 - English: Upper-Intermediate (B2)
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REFERENCES

Available upon request
