


**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.

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## 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)**
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## 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

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## 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

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