

# Omar Mohsen Elashry *Mechatronics Engineer*

✉ omar2002mohsen2020@gmail.com

☎ 01009218578

📍 New Damitta - Egypt

🌐 <https://www.linkedin.com/in/omar-elashry-11859928b/>

🛡 Military Exemption

## Education

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08/2020 – 07/2025 **B.Sc. in Mechatronics Engineering**  
New Damietta, Egypt *Horus University, Egypt*  
GPA:3.81/4.00 (Excellent)  
Ranked 5th among Mechatronics students.

## Profile

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Motivated Mechatronics Engineering with hands-on experience in MEP systems, robotics, industrial automation, and data visualization. Skilled in Power BI, control systems, and AI integration. Adept at using programming and engineering tools for innovative problem-solving and smart system development.

## Skills

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### Software & Tools



CNC PowerMill, MATLAB, SolidWorks, AutoCAD, TIA Portal, Semantic Manager, EKTS, LogixPro, Microsoft Office, Photoshop, AutoCAD.

### Programming Languages



Python, C++, Java, HTML, CSS, JavaScript (React)

### Control & Automation



- PLC (Siemens & Schneider), Classic Control, Motor Drives
- Embedded Systems Testing & Project Planning Skills

### Robotics & Electronics



Arduino IDE, Proteus, Tinkercad, Fritzing Data & BI: Power BI, SQL, Excel

### Soft Skills



Leadership, Problem-solving, Teamwork, Communication

### MEP Tools



Revit MEP, HAP, Elite Software

## Project Management Skills

- Acquired solid understanding of Project Management fundamentals
- Hands-on familiarity with project planning and scheduling software (**Primavera**)

## Professional Experience

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09/2025 – Present **Teaching Assistant – Faculty of Engineering**

New damietta

07/2025 – 08/2025 **Summer Internship – Mechanical Design & MEP Systems – ENG.X**

- Completed specialized training in mechanical design using Revit software.
- Gained practical knowledge in HVAC systems, fire-fighting systems, and plumbing systems.
- Demonstrated commitment, discipline, and positive engagement throughout the training.

06/2024 – 08/2024 **Summer Internship – General Petroleum Company (GPC)**

Eastern Desert Fields, Egypt

- Performed field maintenance on motors, pumps, and control systems.

- Supported SCADA monitoring and control loop calibration. - Assisted in mechanical maintenance and turbine operation processes.
- Gained exposure to ATS systems and fault diagnostics.

09/2023 – 10/2023  
Badr City , Egypt

#### **Summer Internship – Petrojet for Petroleum Services**

- Assisted in troubleshooting and repairing hydraulic and electrical systems.
- Worked with PLCs, relays, and motor control panels.
- Inspected and tested cranes, excavators, and pump systems.

07/2023 – 08/2023  
Horus University New  
Damietta, Egypt

#### **Summer Training – Engineering Consultation Office**

- Completed practical training in PLC programming, hydraulics, and pneumatics systems.
- Worked with various engineering software tools for simulation and design.
- Developed problem-solving skills through hands-on lab activities and applied projects.

08/2022 – 08/2022  
New Damietta, Egypt

#### **Summer Internship – Eric Maritime for Marine Stevedoring**

Completed 40 hours of training covering project management, mechanical systems, and control engineering.

## **Projects**

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### **Graduation Project**

*Advanced Robotic System for Inspection of Pipeline Systems (A+)*

Role: Team Leader

- Designed and led an AI-integrated robotic system for internal pipeline inspection.
- Rated Excellent by the evaluation committee.

*Achievements:*

- Financial support from Academy of Scientific Research.
- Technical support from Petrojet.
- 1st place – Hult Prize Horus University.
- Top 16 nationally – Hult Prize Egypt.
- Won the Damietta Entrepreneurs Competition Award, sponsored by Methanex Company

### **Software Projects**

- Pharmacy Management System (Hue Pharmacy)
- Developed a management software for sales, stock tracking, and reporting. - Online Hospital Booking System
- Built a digital solution for scheduling hospital appointments and patient management.
- Loans Dashboard with Power BI
- Created interactive dashboards applying DAX & data storytelling techniques.
- Revit MEP – Smart Arch Office – Modeled HVAC, plumbing, and fire protection systems with full layout sheets.

### **Revit MEP -Modeling for the "Smart Arch Office"**

- Completed detailed modeling for the "Smart Arch Office" project with 6 required layout sheets.
- Modeled shield station and fire pump room.
- Designed male restroom networks for water supply and drainage. - Developed HVAC and fire protection systems for manager's office, secretariat

### **Loans Dashboard with Power BI**

- Designed and developed a dynamic dashboard for business loan data analysis.
- Utilized DAX, filters, Excel, and Python to create insightful reports.
- Applied data storytelling techniques to enhance decision-making and business insights.

### **Automation Projects**

- Troubleshooting and fault diagnosis in classic control panels.
- PLC programming on Siemens S7-1200 with digital sensors integration.
- Motor drive configuration and troubleshooting across multiple brands.
- Design and implementation of a small-scale electrical control panel.

- Production line simulations using Factory I/O + PLC (conveyors, sorting, filling, and warehouse automation).

### Academic Projects

- Vibration Damper Design & Implementation
- Robotic Arm
- Obstacle Avoidance Robot
- Color Sorting Machine
- Smart Stick
- Blood Oxygen Monitoring System
- Digital Display System

### Languages

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**Arabic**  
Native

**English**  
professional

### Organisations

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2025 – Present

**Egyptian Engineers Syndicate**

*Member of the Egyptian Engineers Syndicate-Damiatta*

2023 – 2024

**IEEE Student Branch**

Horus University

- Active member participating in **technical events, workshops, and competitions.**
- Collaborated with peers in organizing **student activities and knowledge-sharing sessions.**
- Gained exposure to **latest trends in engineering and technology** through IEEE resources.

### Courses

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**Power BI Diploma**

*AMIT Learning*

**Basic Control — HA Consulting Group**

- Classic Control Troubleshooting
- PLC Programming
- Motor Drive
- Panel Building

**Artificial Intelligence**

*Zewail City*

**Robotics & Arduino Programing**

*Smart technology*

**MEP Design & Technical Training – HVAC, Firefighting, Plumbing, Medical Gas & Revit**

*ENG.X*

- Specialized training in mechanical design for MEP systems.
- Covered HVAC, fire-fighting, and plumbing systems with practical Revit applications.
- Combined design principles and technical execution for real-world projects.