

YOUSSEF ADEL ABDEL-FATTAH MOHAMED

Electrical & Renewable Energy Engineer | IoT & Smart Systems Specialist

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PROFESSIONAL SUMMARY

Motivated Electrical & Renewable Energy Engineering Student (Class of 2028) with practical field experience in power generation, grid distribution, and smart IoT automation. Hands-on technical background from summer internships at Upper Egypt Electricity Production Co. (UEEPC) across steam, combined-cycle, and solar power stations, alongside professional site engineering preparation. Proficient in Solar PV integration, embedded microcontrollers, Python, MATLAB, and AutoCAD. Strong track record in project leadership, problem-solving, and utilizing AI-driven engineering tools.

EDUCATION

Faculty of Engineering — Beni Suef, Egypt

2023 – Present (Expected: 2028)

B.Sc. in Electrical Engineering – Renewable & Sustainable Energy Program

- **Core Focus:** Solar PV Systems, Electric Power Systems, Smart Grids, Control Engineering, Microcontrollers & IoT, Circuit Analysis.

PRACTICAL EXPERIENCE & TECHNICAL INTERNSHIPS

Practical Field Engineer Intern — Upper Egypt Electricity Production Co. (UEEPC)

July 2025 – August 2025

Power Stations Technical Training Program (90 Training Hours / 18 Days)

- Completed intensive site training across major power plants: **El-Kureimat 1 (Steam), El-Kureimat Combined Cycle, South Helwan, and Solar Power Stations.**
- Studied generation infrastructure: steam/gas turbines, step-up transformers, switchgears, grid synchronization, and protective relaying.

Professional Electrical Site Engineer Trainee — Engineers Syndicate / Club

June 2026 – August 2026

Certified Professional Site Engineer Program ("Professional Site Engineer")

- Trained in practical site execution, shop drawings, single-line diagrams (SLD), cable sizing, low/medium voltage distribution, and grounding.

ENGINEERING PROJECTS

Automatic Solar Night Light System — *Project Leader*

Embedded & Solar Automation

- Designed and built an autonomous solar-powered lighting system using Solar PV panels, LDR light sensors, relay switching, and battery charge controllers.
- Led circuit design, component sizing, prototyping, and testing, achieving efficient daytime charging and reliable automated night operation.

CERTIFICATIONS & COURSES

- **Introduction to IoT & Digital Transformation** — Cisco Networking Academy (May 2026 | Cert ID: 355a9572-9588-4809-ab26-06e414ef054f)
- **Power Generation & Solar Stations Training** — Upper Egypt Electricity Production Co. (Aug 2025)
- **Professional Electrical Site Engineer Training** — Engineers Syndicate (Aug 2026)

TECHNICAL SKILLS

- **Engineering Tools:** AutoCAD (Electrical/Drafting), Proteus Circuit Simulation, Arduino IDE, MS Office (Word, Excel, PowerPoint)
- **Programming & Web:** Python, MATLAB, HTML5, CSS3, JavaScript
- **Renewable & Power Systems:** Solar PV Systems, Power Plants (Steam, Combined-Cycle, Solar), Transformers, Switchgears, Site Engineering
- **IoT & Automation:** Microcontrollers (Arduino/ESP), Sensors & Actuators, Digital Transformation, AI Tools & Prompt Engineering

SOFT SKILLS & LANGUAGES

- **Languages:** Arabic (Native Speaker), English (Intermediate / Technical Proficiency)
- **Key Soft Skills:** Project Leadership, Strategic Time Management, Analytical Problem Solving, Technical Writing, Team Collaboration