

# MOSTAFA FOUDA

Cairo, Egypt | Paris, France | +33 6 15 40 45 25 | [moustafaafouda@gmail.com](mailto:moustafaafouda@gmail.com)

## **PROFESSIONAL SUMMARY**

Master's graduate from Institut Polytechnique de Paris with experience at Schneider Electric, specializing in data analysis, sustainability, and energy systems. Collaborated in multidisciplinary and international teams, analyzing complex data and coordinating with stakeholders to support data-driven solutions.

## **WORK EXPERIENCE**

### **Schneider Electric — Eco-Design Transformation Consultant**

*Grenoble, France | May 2025 – Nov 2025 | Internship*

- Designed and implemented an integrated digital eco-design tool combining engineering, environmental, and product data to support data-driven decision-making in sustainable product development.
- Analyzed global eco-design datasets to identify deployment gaps and implementation patterns, delivering the first structured assessment of eco-design maturity across the eco-design Center of Excellence (CoE).
- Developed and integrated a prioritization framework within the eco-design tool to evaluate and rank decarbonization levers, enabling more efficient deployment of eco-design actions across product R&D teams.

### **Renewable Energy Laboratory, UST Zewail City — Research Assistant**

*Cairo, Egypt | Oct 2021 – Jun 2022 | Part time*

- Developed and simulated a hybrid AC/DC microgrid integrating renewable generation and hydrogen storage, applying modeling and techno-economic analysis to evaluate system performance and efficiency; resulting in two IEEE conference publications.

### **Elsewedy Electric T&D — Solar Design Engineer**

*Cairo, Egypt | Jun 2022 – Sep 2022 | Internship*

- Designed photovoltaic system sizing and configuration using load profile data and site conditions, incorporating technical and economic constraints to ensure project feasibility and performance.
- Developed an optimization algorithm to evaluate PV-only and PV-battery scenarios to determine optimal system sizing and return on investment based on demand and generation profiles.

## **EDUCATION**

### **École Polytechnique — Institut Polytechnique de Paris**

- MSc Energy Science and Technology | 2025
- GPA: 3.95/4.0 | Thesis: (18/20, highest in program) | Ranked #1 in France (QS Ranking: #41 globally)

### **UST Zewail City of Science and Technology**

- BSc Renewable Energy Engineering | 2022
- GPA: 3.3/4.0 | Thesis: A

## **RESEARCH PUBLICATIONS**

- Dynamic Modeling and Control of Hybrid AC/DC Microgrid with Green Hydrogen Energy Storage. IEEE CPERE 2023. DOI: <https://doi.org/10.1109/CPERE56564.2023.10119606>
- Energy Management and Techno-Economic Optimization of an Isolated Hybrid AC/DC Microgrid with Green Hydrogen Storage System. IEEE CPERE 2023. DOI: <https://doi.org/10.1109/CPERE56564.2023.10119587>

## **ADDITIONAL INFORMATION**

- **Languages:** English (Fluent), Arabic (Native), French (B1)
- **Extracurricular Activities:** Shell NXplorers Entrepreneurship Competition (Team Leader, 3rd Place); Electric Vehicle Rally (EVER) (2nd Place); IEEE Hybrid Electric Vehicle Challenge (2nd Place), International Small Wind Turbine Contest (Fundraising Lead); Extracurricular Excellence Award — UST Zewail City
- **Software Skills:** MATLAB/Simulink, Python, Excel, Power BI, HOMER, SolidWorks, ANSYS
- **Core Skills:** Data analysis, techno-economic assessment, energy systems, sustainability & eco-design.
- **References:** Meriem Kellou — Global Eco-Design Transformation Director, Schneider Electric