

Sameer Altawabini

Research Assistant | Energy Engineer

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Profile

Energy Engineer with research interests in renewable energy, clean energy sources, alternative energy sources, life cycle assessment, sustainability, and renewable-powered applications such as desalination. Experienced in academic research, teaching assistance, laboratory safety, and practical PV engineering. Seeking PhD, Research Assistant, or Teaching Assistant opportunities to advance research and contribute to sustainable energy solutions. Languages: Arabic is native; English is at professional working proficiency.

Education

- Master's degree in mechanical engineering, renewable energy
King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia | December 2025
GPA 3.75/4.00 | Full international scholarship
 - Thesis: Life Cycle and Decision Criteria-Based Optimization of Solar-Powered Desalination Systems in the Arabian Gulf
- Bachelor's degree in Energy Engineering
Al Hussein Technical University, Amman, Jordan | October 2022
GPA 3.79/4.00 | First in graduating cohort
- Higher National Diploma in General Engineering, accredited by Pearson
Al Hussein Technical University, Amman, Jordan | May 2022
Distinction | First in graduating cohort

Research Focus

- Master's research: life cycle assessment of different PV systems within solar-powered desalination, with a focus on environmental performance and decision criteria.
- Research interests: renewable energy systems, carbon reduction, sustainable buildings, energy storage, and robotics in engineering applications.

Additional Awards

- Second place, national Sumo Robotics competition at Princess Sumaya University for Technology, September 2021.
- Math Marathon finalist and top ten finisher, HTU, June 2022.

Research and Teaching Experience

Research Assistant — The Deanship of Scientific Research and Innovation

Al Hussein Technical University | Amman, Jordan | Aug 2026 – Present

- Administer and coordinate research projects and activities across all university disciplines; monitor progress reports, deliverables, and follow-up.
- Support research funding proposals and documentation, coordinating with faculty members, researchers, students, and university units.

- Contribute to intellectual property policy revisions and support researchers and inventors with innovation and commercialization activities.
- Review research procedures and documentation to support quality assurance and continuous improvement.
- Organize research seminars, visits, conferences, and webinars, coordinating technical and logistical requirements.

Safety Engineer at the Mechanical Engineering Department

KFUPM | Dhahran, Saudi Arabia | Aug 2024 – Jul 2026

- Conducted laboratory safety inspections and risk assessments for experiments and engineering projects.
- Developed safety procedures and standard operating procedures for laboratories and workshops.
- Monitored personal protective equipment compliance and assisted with incident reporting and analysis.

Research Assistant

KFUPM | Dhahran, Saudi Arabia | Aug 2023 – Jul 2026

- Conducted research on renewable energy systems, energy storage, and renewable energy optimization.
- Worked with research groups in renewable energy and sustainability projects.
- Prepared two research papers to be published in “Q1” journals.

Teaching and Research Assistant

KFUPM | Dhahran, Saudi Arabia | Aug 2023 – Jul 2025

- Supported Energy Conversion (ME-423), Manufacturing Process (ME-322), Machine Design (ME-301), and graduate Seminar courses (ME-599 and ME-699).
- Organized undergraduate help sessions and supported laboratory project supervision.
- Administered and graded quizzes, homework, and assignments; supported examination invigilation.
- Digitized the evaluation form used for graduate seminar assessments.

Conference Research Contributions

- First author, renewable energy conference paper, 12th International Renewable Engineering Conference (IREC), Amman, Jordan, 2021; presented and published.
- First author, renewable energy comparison paper, 15th International Conference on Renewable Energy Research and Applications (ICRERA), Paris, France, October 2026; scheduled for presentation.
- Corresponding author, sustainable building technologies conference paper, ICRERA, Paris, France, October 2026; scheduled for presentation.
- First author, renewable energy conference paper, International Conference on Future Technologies (ICFT), Amman, Jordan, October 2026; scheduled for presentation.

Industry and Site Experience

Design Engineer

Mayer Solar | Remote, Texas, USA | Jul 2026 – Aug 2026

- Designed and technically evaluated residential and commercial PV systems, including grid-connected, off-grid, and hybrid configurations.

Technical Sales and Design Engineer

DARBCO | Amman, Jordan | Jan 2023 – Aug 2023

- Designed PV systems, ground-mounted structures, and robotic solar-panel cleaning systems using AutoCAD.
- Prepared technical and commercial proposals, system specifications, engineering documentation, and cost estimates.

Intern Energy Engineer

Elite Energy and Engineering | Amman, Jordan | Jul 2022 – Dec 2022

- Participated on-site in thermal inspection of a 16 MWp PV project at the University of Jordan.

Intern Energy Engineer

Philadelphia Solar | Amman, Jordan | Feb 2022 – Jul 2022

- Worked on PV module production processes from half-cut cells to finished panels.
- Participated on-site in construction and implementation activities for a 0.5 MWp PV project.

Technical Skills

Life cycle assessment; renewable energy modelling; PV design and performance assessment; thermal inspection; technical documentation; laboratory risk assessment.

Tools: SimaPro, MATLAB, Simulink, Python, Excel, PVsyst, HOMER, SAM, PVGIS, AutoCAD, SolidWorks, Aurora Solar, SketchUp, HAP, Mendeley, and Microsoft Office.

Engineering Projects and Training

- Designed and fabricated an Arduino-controlled firefighting robot.
- Designed, developed, and fabricated a fingerprint attendance system prototype.
- Trained more than 100 students in microcontroller fundamentals and project applications in 2022.

Certifications and Professional Development

- NEBOSH Award in Health and Safety at Work, March 2022.
- Enphase installer and design certification training across four energy-system generations, July 2026.