Waleed Al-Azhari

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EDUCATION

University of Jordan | Amman, Jordan **Expected Graduation Date: Aug. 2026**
Bachelor of Science in Mechanical Engineering

WORK EXPERIENCE

Research Assistant – Office of Sustainability | University of Jordan **Feb. 2026 – Present**

- Conduct sustainability research under Prof. Osama Ayadi, quantifying campus CO_2 emissions and preparing greenhouse-gas (GHG) inventory reports to guide university sustainability planning
- Co-developed and currently maintain the official UJ sustainability portal (ujsustainability.org). Built using HTML, CSS, and JavaScript, making it a baseline framework for other Jordanian universities to adopt

TRAINING

University of Cyprus – PV Technology | Nicosia, Cyprus **Sept. 2025**

- Selected as 1 of 4 students from the University of Jordan for the INNOMED 14-day international training program
- Applied photovoltaic (PV) system analysis using PVsyst, and conducted energy modeling, enhancing technical competency in renewable energy engineering using programs such as OpenStudio

PROJECTS

Bifacial Cooling of Photovoltaic (PV) Panel | Graduation Project **Oct. 2025 – Present**

- Designed an air curtain cooling system for a bifacial 450 W PV module, building an instrumented test bench with Type-K thermocouples and LabVIEW data acquisition to characterize thermal and flow behavior
- Built a closed-loop Arduino PI control system with SCR voltage regulation and temperature feedback
- Validated a CFD model in ANSYS against measured data, and identified the optimum blower speed of 800 rpm via motor-power modeling, recovering 12.6 W of power, and achieving a 45% improvement in cooling performance

10-Kilowatt Wind Turbine Design **Jan. 2025 – Sept. 2025**

- Designed a complete wind turbine system including blades, yaw and pitch mechanisms, and a two-speed gearbox.
- Modeled all components in Creo Parametric, including custom gears and couplings. Conducted CFD and structural analysis in ANSYS, and evaluated lift, drag, and power output

1:20 Scale Remote-Control Airplane **Apr. 2025 – Jun. 2025**

- Designed and fabricated a 1:20 scale aircraft from scratch, selecting tapered-wing airfoils and performing finite-wing aerodynamic analysis across multiple Reynolds numbers, plus a full performance workup
- Engineered the internal load-bearing structure (spar at 30% chord, hatched ribbing) for a 0.8 mm-wall PLA airframe budgeted to 1.8 kg; built the radio control system from discrete components, soldering transceiver modules and servo control onto a custom modular PCB then 3D-printed, assembled, and bench-tested the complete aircraft

LEADERSHIP & INVOLVEMENT

American Society of Mechanical Engineers | University of Jordan Chapter **Jan. 2025 – Present**

- Led the Design and Social Media departments as part of the core leadership team, organizing chapter events and workshops and coordinating across faculty and students to deliver the chapter's main activities
- Strengthened chapter visibility and member participation, with over 1,000 new followers gained on social media

Association of Energy Engineers | University of Jordan Chapter **Feb. 2026 – Present**

- Organized events, workshops, and social media to build sustainability awareness across the engineering campus and served on the technical team researching and writing weekly newsletters on environmental topics

SKILLS

Simulation & Analysis: ANSYS, Carrier HAP, LabVIEW, OpenStudio, PVsyst.
CAD & Design Software: Creo Parametric, AutoCAD, Blender, SolidWorks, Autodesk Revit.
Programming & Technical Tools: Python, C++, MATLAB, Android Studio (Kotlin).
Languages: English (Fluent), Arabic (Fluent).