

Mansour Al Jarbou

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Professional Summary

Final-year Mechanical Engineering student at King Saud University seeking a co-op opportunity. Brings project-based experience in mechanical design and engineering analysis, with an emphasis on evaluating alternatives and balancing performance, feasibility, and cost. Has led an award-winning engineering design team and independently developed a student navigation service, demonstrating initiative and ownership beyond coursework.

Education

King Saud University | Riyadh, Saudi Arabia

Expected Graduation: 2027

Bachelor of Science in Mechanical Engineering | **GPA: 4.57/5.00**

Selected Electives: Energy Efficiency, Solar Energy, Mechanical Vibrations, Fluid Machinery

Projects

Nose Landing Gear Test Rig Design | *Mechanical Engineering Design II*

Aug 2025 – Dec 2025

- Led a three-member team to **1st place among 9 competing teams** in a UAV nose landing gear test rig design challenge proposed by the Prince Sultan Defense Studies and Research Center (PSDSARC).
- Developed an inclined impact plate testing approach to simulate landing impact and horizontal drag forces without powered wheel-rotation equipment, with design calculations showing **33% lower estimated rig costs**.
- Designed and modeled the complete test rig in **SolidWorks**, incorporating a lead-screw lifting system and conducting kinematic and structural analyses to evaluate design feasibility.

Massar | *Independent Campus Navigation Project*

Feb 2024 – Present

- Reached **over 2,500 engineering students**, including approximately **92% of incoming students each semester**, by independently developing and launching a Telegram-based classroom navigation service at King Saud University.
- Developed room-specific video walking guides to simplify navigation across the College of Engineering, with calculations indicating an **88% reduction in classroom search time**.
- Addressed **VOC feedback** on complicated room searches and Telegram-only access by expanding Massar into a bilingual web platform with interactive maps, animated routes, and video guides.

Direct Contact Heat Exchanger for King Saud University Solar Tower

Graduation Project / In Progress

Jan 2026 – Present

- Designed a multistage counterflow heat exchanger concept for high-temperature particle-to-air heat transfer in solar power generation.
- Developed a cooled double-shell configuration to separate high-temperature exposure from high-pressure containment, with the potential to reduce material costs.
- Evaluated alternative design configurations using **ANSYS Fluent (CFD)** to assess airflow distribution, recirculation, and pressure losses, supporting design optimization.

Leadership & Volunteering

Tamakkan Initiative | **Execution Unit Lead**

Aug 2026 – Present

- Lead workshop execution, task delegation, scheduling, venue logistics, and on-site operations; coordinate guest speakers and sponsorship outreach.

Mechanical Engineering Club | **King Saud University**

Human Resources Committee Co-Lead

Dec 2024 – Jan 2025

- Co-led member recruitment and onboarding, and coordinated activities across club committees.

Edraak Team Member

Aug 2023 – 2024

- Supported planning and delivery of educational workshops for engineering students.

Certifications & Programs

Certified Associate in Project Management (CAPM) – PMI, 2026

Lean Six Sigma Green Belt – Council for Six Sigma Certification (CSSC), 2026

McKinsey Forward Program – McKinsey & Company, 2026

Skills

Technical: SolidWorks, AutoCAD, ANSYS Fluent, Power BI, Microsoft Office (Excel, Word, PowerPoint), C++

Professional: Structured Problem-Solving, Leadership, Project Coordination, Emotional Intelligence, Communication

Languages: Arabic, English