

Abdulaziz Alharbi

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Education

Bachelor of Mechanical Engineering 2026
Imam Mohammed Ibn Saud Islamic University Riyadh
Co-op Candidate

Projects

Graduation Project 2025 – 2026

- Graduation project focused on reverse engineering of a mechanical component
- Involves analysis of geometry, material considerations, and redesign for manufacturing or performance improvement

Thermodynamic Analysis & CSP Integration of PP9 Combined Cycle Power Plant (Riyadh) 2025

- Conducted a detailed **thermodynamic performance analysis** of a **combined cycle power plant (2 GT + 2 HRSG + 1 ST)** using operational data.
- Evaluated gas and steam cycle efficiencies, net power output, and baseline combined cycle performance.
- Analyzed an Integrated Solar Combined Cycle (ISCC) configuration, demonstrating efficiency improvement and reduced fuel consumption through hybrid solar integration.

Drone Development 2025

Tuwaiq Academy (90-Hour Bootcamp)

- Designed fixed-wing UAV components using CAD tools and validated performance through simulation
- Applied fundamental guidance, navigation, and control (GNC) concepts for fixed-wing flight behavior
- Participated in system integration, assembly, and flight testing of a fixed-wing UAV platform
- Collaborated within a multidisciplinary team to deliver a functional UAV prototype

Skills

TECHNICAL SKILLS

- SolidWorks
- AutoCAD
- CATIA V5
- ANSYS Mechanical
- MATLAB
- SimScale

CORE COMPETENCIES

- Engineering problem-solving
- Team collaboration in technical projects
- Technical documentation and reporting
- Time management and task prioritization

Certificates

Renewable Energy Technology Fundamentals

University of Colorado Boulder

Renewable Power and Electricity Systems

University of Colorado Boulder

Languages

Arabic (Native)

English (Fluent)