

Mohammad Al Shimi

Mechanical Engineer

- **Birthday:** 10 Oct 1998 in Riyadh, KSA
- **Marital Status:** Married

- **Nationality:** Jordanian
- **Address:** Amman, Jordan

Contact

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Summary

A highly motivated, passionate, and diligent mechanical engineer with a strong academic record. Possessing excellent communication skills, problem-solving abilities, a quick learning aptitude, and a passion for research and education. Experienced in conducting practical experiments and teaching software applications in mechanical engineering. Has technical expertise that extends to HVAC systems, covering design and engineering support. Excellent in mechanical maintenance, inspection, and planning. Well-prepared to contribute effectively to the success of the workplace.

Education

- **M.Sc. in Mechanical Engineering** (2024 – Present)
University of Jordan (Amman, Jordan)
- **B.Sc. in Mechanical Engineering** (2017 – 2021 – Full Time)
Jordan University of Science and Technology (JUST) (Irbid, Jordan)
 - **GPA: 3.94 out of 4 (Excellent Rating)** (Top 2.9% of the batch, seven times on the faculty honor board).
 - **Graduation Project:** Design and Implementation of an Automatic Amphibious Cleaning Machine for Dirty Stagnant Lakes. (The machine was successfully tested in the lake of JUST).

Professional Experience

- **Research and Teaching Assistant – Mechanical Engineer** (Oct 2022 – Present – Full Time)
German Jordanian University (GJU) (Amman, Jordan)
 - Working on some experimental research projects in mechanical engineering.
 - Supervising and lecturing many labs and software in the school of applied technical sciences (SATS) - mechanical and maintenance engineering department, such as Thermo-fluids lab, Thermal systems lab, Mechanical vibrations lab, Machine design lab, SOLIDWORKS, AutoCAD, EES, and developing engineering and technical manuals.
 - Organizing and lecturing technical practical training courses and workshops.
 - Designing, manufacturing, maintaining, and calibrating some experimental setups and devices.
 - Establishing the GJU Student Branch of ASHRAE and being the advisor of the branch.
 - Participating in the staff mobility programs organized by the GJU with many European universities.
 - Performing many administrative and engineering tasks at the university.

- **Support Engineer** (Jun 2021 – Sep 2022 – Full Time)
Arab Technical Group (ATG) (Amman, Jordan).
 - Providing engineering support and sales consulting in several mechanical systems and products (HVAC, boilers, central heating, underfloor heating, air purification).
 - Conducting engineering studies, such as energy consumption of the systems, technical comparisons between many systems and market products, pre-sales engineering studies, and optimization.
 - Organizing and lecturing many engineering workshops and presentations for the sales team and mechanical engineering consultants.
 - Participating in engineering marketing (technical articles and videos) and business development.
- **Mechanical Engineering Researcher and Trainer** (Mar 2021 – Jun 2021 – Full Time).
Engineering Circle Centre for Training and Consultations (ECC) (Amman, Jordan).
 - Lecturing mechanical engineering students on some pieces of engineering software, such as SOLIDWORKS.
- **Mechanical Engineering Trainee** (Jul 2020 – Sep 2020 – Full Time).
Jordan Petroleum Refinery Company (JPRC) (Al Zarqa, Jordan).
 - Training in these departments: mechanical maintenance, safety and environment, engineering workshops, maintenance planning, inspection, firefighting, and mineral oils.

Memberships

- Jordanian Engineers Association (**JEA**) (2021 – Present)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (**ASHRAE**) (2019 – Present)
 - Student Activities Committee Chair in ASHRAE Jordan Chapter (Aug 2024 – Present)
 - Advisor of GJU Student Branch of ASHRAE (Aug 2023 – Present)
 - Membership Promotion Committee Co-Chair in ASHRAE Jordan Chapter (Jun 2023 – Aug 2024)

Research and Publications

- Hammad, Bashar K., **Mohammad K. Al Shimi**, and Mohammad A. Al-Abed. "Enhancing the performance of solar air heaters by augmenting emissivity of absorber plates." *AIP Conference Proceedings*. Vol. 3368. No. 1. AIP Publishing LLC, 2026.
- **Al Shimi, Mohammad**, Bashar K. Hammad, and Anas Jadallah. "Hydrogen Generation From Pumped Hydroelectric Energy Storage Integrated with Photovoltaic System: Case Study of Wadi Al Arab." *2025 15th International Renewable Energy Congress (IREC)*. IEEE, 2025.

Training Courses

- Introduction to Machine Learning and Algorithms -30 hours (Oct 2024)
- Operation of 3-Axis CNC Milling Machines -24 hours. (Feb 2024)
- Social Intelligence and The Refined Professional. (Sep 2021)
- Design and Implementation of Mechanical Systems for Facilities -100 hours. (Aug 2021)
- Production Planning Management -15 hours. (Dec 2019)
- Aircraft Inspection Techniques Management -15 hours. (Dec 2019)
- Standard Maintenance Practice Management -15 hours (Dec 2019)
- MATLAB and SIMULINK Software -30 hours. (Jun 2019)
- Pumps Operation and Maintenance -30 hours. (May 2019)

Skills

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| - Troubleshooting | - Teamwork spirit | - Work under pressure | - Creativity |
| - Great communication skills | - Research skills | - Time management | - Leadership |
| - Teaching skills | - Presentation skills | - Decision-Making skills | |

Computer Skills

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| - SOLIDWORKS | - AutoCAD | - Pro ENGINEER | - HAP |
| - ANSYS | - FluidSIM | - MATLAB and SIMULINK | - EES |
| - Duct Sizer | - C++ / Arduino IDE | - Microsoft Office (Word, Excel, PowerPoint) | |
| - COMSOL Multiphysics | | | |

Languages

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| - Arabic (Native) | - English (Professional Working Proficiency) | - German (Beginner) |
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Activities and Participations

- Participated in the **GJU Staff Mobility Program 2025** in Stralsund, Germany, from 23rd of August to 21st of September. The first two weeks were in the SustainMV 2025 summer school in collaboration with 6 German universities. The second two weeks were spent in intensive training at the Institute of Renewable Energy Systems (IRES) and ThaiGer Lab in the field of hydrogen energy, sustainability, and racing cars.
- Participated in the **ASHRAE RAL CRC 2024** conference in Karachi, Pakistan, from the 4th to the 7th of October as a representative of German Jordanian University with two students, whereas three students from GJU won in the ASHRAE Student Competition 2024 in the first three places and were invited to the conference with the branch advisor.
- Participated in the **RED BULL Soapbox Jordan 2023** race competition with **(GJU ME)** team at the German Jordanian University as the mechanical systems advisor. The suspension system, steering system, braking system, and chassis were designed and tested successfully in the GJU workshops.
- Participated in the **RED BULL Soapbox Jordan 2019** race competition with **(THE FLAMING MONSTER)** team as the team leader. The team designed and implemented a gravity vehicle to enter the race and compete with more than 60 teams. The car designed by the team was one of the fastest cars, which reached the finish line successfully.

Undergraduate Projects

- **Design and Implementation of the following projects:**

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| - Automated Book Binding Machine | - Jet Pump | - Capillary Viscometer |
| - Self-Starting Siphon | - Truss | - Structure of Gravity Vehicle |

- **Design of the following projects:**

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| - Many HVAC systems (All Components) | - Smart Bump | - Automated Stamping Machine |
| - Grid-Off PV System for a Farm | - Mechanical Part by Using Topology Optimization | |