

DR. YOUSEF ALTAHARWAH



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Google scholar

https://scholar.google.com/citations?view_op=list_works&hl=en&user=O7Vn0hkAAAAJ&gmla=AJsN-F6dLSgebSZZGfK9oGm1KDTSjp3zSE-stDU7eZSHPn9pJjsDc5kedWkbMl

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Scopus Profile

<https://www.scopus.com/authid/detail.uri?authorId=57213676674>

SUMMARY

Yousef Altaharwah was born in Amman, Jordan, in 1991. He currently lives in Alkarak, Jordan. Passionate full-time lecturer in mechanical engineering with a proven track record at Mutah University, excelling in curriculum development and academic advising. Adept at fostering critical thinking and collaboration among diverse student populations. Skilled in research methodology and performance evaluation, driving student success through innovative lesson planning and tailored instructional strategies.

SKILLS

- Curriculum development
- Research methodology
- Lesson planning
- Academic advising
- Faculty collaboration
- Performance evaluation
- Data analysis
- Academic research
- Syllabus development
- Lab safety

EXPERIENCE

FULL-TIME LECTURER/ COLLEGE of ENGINEERING/ MECHANICAL ENG. DEP.,

02//2026-Till Now

Mutah University, Alkarak, Jordan

- Delivered lectures on advanced technology topics to diverse student groups.
- Conducted assessments to evaluate student performance and curriculum effectiveness.
- Conducted research in relevant fields to inform teaching practices.
- Hydraulic and pneumatic systems
- Fluid mechanics lab.
- Internal combustion engines lab.

ASSISTANT PROFESSOR/ AIRCRAFT MAINTENANCE DEP., 02/2025 - 10/2025

Amman Arab University, Amman, Jordan

- Developed course materials to enhance student understanding and engagement.
- Delivered lectures on advanced technology topics to diverse student groups.
- Conducted assessments to evaluate student performance and curriculum effectiveness.
- Created lesson plans and developed instructional materials covering required topics and learning objectives.
- Conducted research in relevant fields to inform teaching practices.
- Formulated well-structured syllabus of course content to detail learning goals and expected outcomes:
- Human factors
- legislation of aviation and cyber security
- Turbo-machinery

ASSISTANT PROFESSOR/ RENEWABLE ENERGY ENG. DEP., 09/2022 - 02/2025

Amman Arab University, Amman, Jordan

- Developed engaging lesson plans for diverse student populations.
- Facilitated classroom discussions to enhance critical thinking skills.
- Advised students on academic and career pathways effectively.
- Evaluated student performance through assessments and feedback mechanisms.
- Conducted research in relevant fields to inform teaching practices.
- Formulated well-structured syllabus of course content to detail learning goals and expected outcomes:
- Fluid mechanics
- Thermodynamics
- Heat transfer
- Wind energy
- Wind energy lab
- Solar energy
- Solar energy lab
- Energy economy and efficiency
- Renewable energy
- Mechanical design
- Design of wind energy systems

ASSISTANT PROFESSOR/ MECHANICAL ENG. DEP., 10/2020 - 09/2022

National University College of Technology, Amman, Jordan

- Developed engaging lesson plans for diverse student populations.
- Collaborated with faculty on curriculum development initiatives.
- Participated in departmental meetings to discuss educational strategies.
- Adapted teaching methods and materials to meet students' varying needs and interests.
- Used multiple teaching styles to meet learning needs of each individual student.
- Facilitated classroom discussions to enhance critical thinking skills.
- Developed curriculum, lesson plans, and lab exercises for semester classes.
- Structured assignments with clear goals and criteria for assessment.
- Integrated technology into regular classroom use for student engagement and learning.
- Formulated well-structured syllabus of course content to detail learning goals and expected outcomes:
 - Thermodynamics
 - Hydraulic fluids and mechanics
 - Heat transfer
 - Physics
 - Refrigeration and air conditioning

PRODUCTION SUPERVISOR, 12/2014 - 08/2016

United food industries Corp. Ltd. Co (Deemah), Riyadh, Saudi Arabia

- Supervised daily production activities to ensure efficient workflow and quality standards.
- Coordinated with maintenance team to minimize equipment downtime during shifts.
- Reviewed job specifications to properly set up machines.
- Implemented cost-saving measures while maintaining high levels of product quality.
- Researched issues and negotiated with vendors and suppliers to improve processes and reduce unnecessary costs.
- Recommended opportunities for growth and advancement to motivate employees.
- Calculated labor and equipment requirements and production specifications using standard formulas to boost sustainability.
- Determined budgets, production goals and rates based on company policies and requirements.

**EDUCATION
AND
TRAINING**

National Taiwan University of Science and Technology, Taipei, Taiwan, ROC, 07/2020

Ph.D.: Mechanical Engineering- Thermal Science and Fluid Mechanics

- Ranked in Top 500 QS World University Rankings 2025.
 - Thesis or Dissertation Title: Flow and Dispersion Characteristics of a Forward-Inclined Stack-Issued Jet in Crossflow.
 - Full Scholarship Recipient.
 - 4.1/4.3 GPA (Superior)
 - Professional Development Courses:
 - Robotics
 - Conduction heat transfer
 - Turbulent flow with applications
 - Environmental thermofluid dynamics
 - Optical measurement techniques for thermal and fluid sciences.
 - Publications and conferences.
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University of Lincoln, Lincoln, U.K, 09/2017

Master of Science: Mechanical Engineering- Renewable Energy Engineering

- Ranked in Top 1000 of QS World University Rankings 2025.
 - Thesis or Dissertation Title: Aircraft Cabin Thermal Management Investigated using CFD.
 - Partial Scholarship Recipient.
 - Professional Development Courses:
 - Combustion and sustainable fuels
 - Project management
 - Sustainable energy systems
 - Machines in power generation
 - Industrial Turbo-machinery
 - Applied thermo-fluid systems
 - Applied finite element analysis
 - Sensors, actuators and controllers
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University of Jordan, Amman, Jordan, 06/2014

Bachelor of Science: Mechanical Engineering

- Ranked in Top 500 of QS World University Rankings 2025.
- Thesis or Dissertation Title: Direct burning of Oil Shale in Circulating Fluidized Bed.
- Full Scholarship Recipient
- Professional Development Courses:
 - Systems dynamics and control
 - Mechanical vibrations
 - Mechanical machines
 - Electrical engineering
 - Fluid mechanics
 - Thermodynamics
 - Heat transfer
 - Vibration and noise control
 - Solar energy
 - Air conditioning
 - Refrigeration systems
 - Energy conversion
 - Design of sanitary systems
 - Internal combustion engines

PUBLICATIONS

THE MOST IMPORTANT PUBLICATIONS IN LAST FIVE YEARS:

Journal publications:

- **Altaharwah, Y.A.**, Huang, R.F. and Hsu, C.M., 2020, Flow and mixing characteristics of a forward-inclined stack-issued jet in crossflow, *International Journal of Heat and Fluid Flow*, 82, 108549, <https://doi.org/10.1016/j.ijheatfluidflow.2020.108549>.
- **Altaharwah, Y.A.**, Huang, R.F. and Hsu, C.M., 2020, Dispersion and upwind-side shear-layer characteristics of forward-inclined transverse jet in crossflow, *Experimental Thermal and Fluid Science*, 115, 110104, <https://doi.org/10.1016/j.ijheatfluidflow.2020.108549>.
- Al-Salaymeh, A.S., Al-Mansi, N.N., Muslih, I.M., **Altaharwah, Y.A.** and Al Smadi, W.Y., 2023, Electrostatic cleaning effect on the performance of PV modules in Jordan, *Cleaner Engineering and Technology*, 13, 100606, <https://doi.org/10.1016/j.clet.2023.100606>.
- Ali, M., Gherissi, A. and **Altaharwah, Y.**, 2023, Experimental and simulation study on a rooftop vertical-axis wind turbine, *Open Engineering*, 13(1), 20220465, <https://doi.org/10.1515/eng-2022-0465>.
- Hussein, M.Y.A., Musa, A., **Altaharwah, Y.** and Al-Kfouf, S., 2024, Integrating machine learning in architectural engineering sustainable design: a sub-hourly approach to energy and indoor climate management in buildings, *Asian Journal of Civil Engineering*, 1-13, <https://doi.org/10.1007/s42107-024-01034-8>.
- **Altaharwah, Y.A.** and Hsu, C.M., 2024, Flow and mixing characteristics of single-pulsed dual parallel plane jets, *Results in Engineering*, 103741, <https://doi.org/10.1016/j.rineng.2024.103741>.
- **Altaharwah, Y.A.**, Hsu, C.M. and Wang, R.H., 2025, Effect of pulsation intensity on flow and dispersion characteristics of single-pulsed dual parallel plane jets, *International Journal of Heat and Fluid Flow*, 112, 109684, <https://doi.org/10.1016/j.ijheatfluidflow.2024.109684>.
- **Altaharwah, Y.A.** and Hsu, C.M., 2025, Effect of excitation Strouhal number on flow and dispersion characteristics of single-pulsed dual parallel plane jets, *International Journal of Heat and Mass Transfer*, 240, 126642, <https://doi.org/10.1016/j.ijheatmasstransfer.2024.126642>.

Conferences:

- **Yousef Altaharwah**, Rong Huang, and Ching Hsu, Forward-inclined transverse jet in crossflow at low jet-to-crossflow momentum flux ratio, 10th International Mechanical Engineering Conference, Cebu, Philippines, 01/22/20 - 01/24/20.
- Al-Jaafreh, T.M.L., Al-Odienat, A. and **Altaharwah, Y.A.**, The solar energy forecasting using LSTM deep learning technique, 2022 International Conference on Emerging Trends in Computing and Engineering Applications (ETCEA), 11/01/22, <https://doi.org/10.1109/ETCEA57049.2022.10009717>.
- **Y. A. Altaharwah**, Hydro-Fuel, U.S.- Jordan partnership for university leadership and students engagement (PULSE), Amman, Jordan, 07/24/22 - 07/26/22.

RESEARCH LINKS

- Google Scholar
https://scholar.google.com/citations?view_op=list_works&hl=en&user=O7Vn0hkAAA-AJ&gmla=AJsN-F6dLSgebSZZGIK9oGm1KDTSjp3zSE-stDU7eZSHPN9pJjsDc5kedWkbMlMCG1L6uLvVKQI3wx1TRX-4pH_oHm9ewGtXCK6R_nOFoCvz2JEUe45xid95Q4I3NM100Eg5mRHKS_rH
- Scopus profile
<https://www.scopus.com/authid/detail.uri?authorId=57213676674>
- LinkedIn
<https://www.linkedin.com/in/y-a-altaharwah-941b38231/>

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- HONORS AND AWARDS**
- Scientific Research and Innovation Support Fund, Optimization of Wind turbine blades by investigating turbulent flow characteristics beyond it experimentally, \$50,000.00. ENE/1/2/2025. (Accepted).
 - Jordan Partnership for University Leadership and Students Engagement (PULSE), \$1000.00/ 2022.
 - PhD full scholarship recipient 2017- 2020.
 - M.Sc. Partial scholarship recipient 2016- 2017.
 - B.Sc. Full scholarship recipient 2009 - 2014.


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- INSTITUTIONAL PROFESSIONAL DEVELOPMENT**
- Jordan Optimizing Solar Steam for Industry (JOSSI), Germany, Dresden (HZDR)/ Erasmus+ project/ summer of 2022.
 - Research scholar program NTUST/ summer of 2023.

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- CERTIFICATIONS**
- HABC Level 2 International Award in Emergency First Aid at Work, FA786700, Adel, Highfield Awarding Body, Riyadh, Saudi Arabia, 04/20/16
 - HABC Level 2 Award in Fire Safety (QCF), FIR776489, Al Taharwah, Highfield Awarding Body, Riyadh, Saudi Arabia, 12/28/15
 - Academic leadership
 - Participation in many seminars and training workshops

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- ACTIVITIES AND HONORS**
- Jordanian Engineering Association
 - Saudi Council of Engineers

LANGUAGES

Arabic: First Language

English:  B2

Upper Intermediate (B2)

REFERENCES

References available upon request.