

Jenan Abu Qadourah PhD, MSc, BS



PhD (Environmental Design in Buildings), Germany
M.Sc. (Environmental Design in Buildings), UK
B.Sc. (Architectural Engineering), Jordan

Nationality: Jordanian

Date of Birth: 1989

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Academic Rank: Associate Professor

PROFESSIONAL SUMMARY

Associate Professor of Architecture Engineering with strong expertise in environmental design, energy-efficient buildings, and architectural integration of photovoltaic systems. Author of multiple Q1 journal publications (Elsevier, Springer, Taylor & Francis) with demonstrated leadership in international research, conference session convening, editorial board service, and supervision of award-winning graduation projects at regional and global levels.

RESEARCH INTEREST

Environmental Control in Buildings, Energy efficiency, Thermal comfort, Sustainable and Green Architecture, User behavior, Indoor environmental qualities, low-carbon and renewable technologies, Building integrated Photovoltaic.

EDUCATION

2016-2020

Berlin University of the Arts (UdK)

Degree: Ph.D.

Major: Environmental design in buildings.

Supervisor: Prof. Dr.-Ing. Christoph Nytsch-Geusen

Thesis title: Architectural integration of photovoltaic and solar thermal technologies in multi-family residential buildings in the Mediterranean area, a case study of Amman, Jordan.

2014 - 2015

Cardiff University /welsh school of architecture

Degree: Master

Major: Environmental design in buildings.

Master thesis: The effect of ventilation on thermal comfort and energy consumption of single-family houses in different climate regions

2007 - 2012

Jordan University of Science and Technology

Degree: Bachelor

Major: Architecture science.

Graduation Project: Domestic Airport Design

SPONSORSHIPS

- Full scholarship from His Majesty King Abdullah Bin Husain II, B.Sc., Jordan University of Science and Technology, Jordan.
- Full scholarship from Mutah University, M.Sc., Cardiff University, UK.
- Full scholarship from Mutah University, Ph.D., UdK, Berlin – Germany

FUND RESEARCH PROJECT

- “Assessing Performance of the Adaptable Photovoltaic Integrated Façade”. German Academic Exchange Service (DAAD). Funding programme: Bilateral Exchange of Academics, 2023. Partners: Universität der Künste Berlin (Germany) and Mutah University (Jordan).
- “Simulation of Environmental buildings designed by students using IDA ICE simulation software”. EQUA Simulation AB, Swedish company, 2023. Partners: Universität der Künste Berlin (Germany) and Mutah University (Jordan)

WORK EXPERIENCE

July 2020 – Now

Assistant Professor, Department of Architecture. Mutah University.

Administrative experiences (samples):

Member of the Strategic Plan, the Scientific Research, the Faculty Self-assessment, the Quality Assurance, the library, the Social and Cultural, and the E-learning Development Committees.

2012-2014

Architect in Yahia engineering consultant in Jordan.

2011

Training in Maisam Architect| Engineers - Amman-Jordan. (3 months)

AWARDS, HONORS & SUPERVISION EXCELLENCE

- Supervisor of the graduation project “Reviving Ain Sara”, selected among the Top 100 Architecture Graduation Projects worldwide in the Tamayouz Excellence Award 2025, out of 949 submissions from 47 countries (international competition).
- Supervisor of the graduation project “Ru’ya Al-Safsafah”, selected among the Top 7 graduation projects from over 500 projects submitted by 14 Arab universities within the Ayyoun Al-Mustaql Challenge 2025 (regional competition).

- During the Maisam architects and engineers training period: Winning in the competition. The competition is to design PETRA GATE.
- Participated in the architecture exhibition at Jordan University of Science and Technology for outstanding graduation projects.

COURSE TAUGHT

Design Studios for the 1st year to the 4th year students, Graduation projects, Environmental Design, Architectural Working Drawings, Freehand Drawing, Freehand Drawing 2, Computer-Aided Architectural Drawing (1), History of Architecture 2, Contemporary Architecture, Professional Practice, Graduation Project.

SOFTWARE SKILLS

DesignBuilder, Ecotect, 3ds Max Modeling, SketchUp, AutoCAD 2D and 3D, Photoshop, IDA ICE, Polysun.

PEER-REVIEWED PUBLICATIONS

ORCID ID: <https://orcid.org/my-orcid?orcid=0000-0002-6003-5622> (Jenan Abu Qadourah)

Research Engine	Documents	Citations	h-index	Hyperlink
Scopus	17	295	10	https://www.scopus.com/authid/detail.uri?authorId=57483250600
Google Scholar	21	387	11	https://scholar.google.com/citations?hl=en&user=K2PCfUgAAAAJ&view_op=list_works&sortby=pubdate
ResearchGate	18	342	11	https://www.researchgate.net/profile/Jenan-Abu-Qadourah

- **Abu Qadourah, J.** *Socio-Economic and Cultural Readiness for Digital Participatory Planning: Stakeholder Insights from Jordan.* Results in Engineering **2025**. doi:10.1016/j.rineng.2025.108875. (Scopus Q1, 86% & Clarivate).
- Abu Qadourah, J.; Almasarwah, N. E.; Alsarayreh, A. A.; Al-Falahat, A. M. Architectural integration of photovoltaic shading systems for resilient and sustainable cities: a multi-criteria decision-making approach. *Energy and Buildings* **2025**, 351, 116731. doi:10.1016/j.enbuild.2025.116731. (Scopus Q1, 95% & Clarivate).
- N. Almasarwah, J. A. Qadourah, A. A. Alsarayreh, and R. Alrawashdeh, “Modeling Multi-Model Multi-Robotic Disassembly Line Balancing Problem” *IFAC-PapersOnLine*, 2025. doi: 10.1016/j.ifacol.2025.09.234. (Open Access Conference Paper, Scopus & Elsevier).
- Abu Qadourah, J.; Alnusairat, S. Integrating aesthetics and sustainability: evaluating the aesthetic perception of photovoltaic installation on the apartment building façade in Jordan. *Archnet-IJAR: International Journal of Architectural Research* **2024**, doi:10.1108/ARCH-02-2024-0038. (Scopus Q1, 98% & Clarivate).
- Alnusairat, S.; Qadourah, J.A. Moving to green technologies: acceptance and perception of architectural solar photovoltaic technology for residential buildings. *Architectural Engineering and Design Management*, 1-18, doi:10.1080/17452007.2024.2361819.

(Scopus Q1, 93% & Clarivate).

- Alnusairat, S.; Qadourah, J.A. Sociological imagination on green technology: the influence of occupational and professional background on the architectural photovoltaic application. In Proceedings of the 2024 9th International Conference on Energy Efficiency and Agricultural Engineering, EE and AE 2024 - Proceedings, 2024.
(Open Access Conference Paper, Scopus).
- Qadourah, J.A. Improving Natural Ventilation Multi-Story Buildings within Hot and Dry Climates: A CFD Study of Windcatcher Performance. *Civil Engineering and Architecture* **2024**, *12*, 1014-1026, doi:10.13189/cea.2024.120225.
(Scopus Q2, 70%).
- Abu Qadourah, J. Energy efficiency evaluation of green roofs as a passive strategy in the mediterranean climate. *Results in Engineering* **2024**, *23*, doi:10.1016/j.rineng.2024.102519.
(Scopus Q1, 82% & Clarivate).
- Qadourah, J.A. Evaluating solar-active shading solutions: a study of energy performance in Mediterranean residential architecture. *Architectural Engineering and Design Management* **2023**, doi:10.1080/17452007.2023.2267570.
(Scopus Q1, 93% & Clarivate).
- S. Alnusairat, J. Abu Qadourah, and R. Khattab, “Assessing the Future City Post COVID-19: Linking the SDGs, Health, Resilience, and Psychological Impact,” *Sustainability*, vol. 15, no. 1. 2023. doi: 10.3390/su15010811.
(Scopus Q1, 88% & Clarivate).
- J. Abu Qadourah, A. M. Alfallah, and S. S. Alrwashdeh, “Assessment of solar photovoltaics potential installation into multi-family building’s envelope in Amman, Jordan,” *Cogent Eng.*, vol. 9, no. 1, 2022, doi: 10.1080/23311916.2022.2082059.
(Scopus Q2, 70% & Clarivate).
- A. Al-Falahat, A. Q. Jenan, and S. Alrwashdeh, “Economic feasibility of heating source conversion of the swimming pools,” *J. Appl. Eng. Sci.*, vol. 20, no. 1, pp. 230–238, 2022, doi: 10.5937/jaes0-34474.
(Scopus Q3, 48% & Clarivate).
- S. S. Alrwashdeh, J. Abu Qadourah, and A. M. Al-Falahat, “Investigation of the Effect of Roof Color on the Energy Use of a Selected House in Amman, Jordan,” *Front. Mech. Eng.*, vol. 8, 2022, doi: 10.3389/fmech.2022.897170.
(Scopus Q1, 88% & Clarivate).
- J. Abu Qadourah, A. M. Al-Falahat, S. S. Alrwashdeh, and C. Nytsch-Geusen, “Improving the energy performance of the typical multi-family buildings in Amman, Jordan,” *City, Territ. Archit.*, vol. 9, no. 1, 2022, doi: 10.1186/s40410-022-00151-8.
(Scopus Q1, 84%).
- J. Abu Qadourah, “Energy and economic potential for photovoltaic systems installed on the rooftop of apartment buildings in Jordan,” *Results Eng.*, vol. 16, 2022, doi: 10.1016/j.rineng.2022.100642.
(Scopus Q1, 82% & Clarivate).
- J. Abu Qadourah, A. M. Al-Falahat, and S. S. Alrwashdeh, “INVESTIGATE THE CARBON FOOTPRINTS OF THREE INTERMEDIATE FLOORING SYSTEMS: CROSS-LAMINATED TIMBER, SOLID CONCRETE, AND HOLLOW-CORE PRECAST CONCRETE,” *J. Appl.*

Eng. Sci., vol. 20, no. 2, pp. 377–385, 2022, doi: 10.5937/jaes0-32783.
(Scopus Q3, 48% & Clarivate).

- S. S. Alrwashdeh, H. Ammari, Y. S. Jweihan, J. A. Qadourah, M. J. Al-Kheetan, and A. M. Al-Falahat, “Refurbishment of Existing Building toward a Surplus Energy Building in Jordan,” Open Constr. Build. Technol. J., vol. 16, no. 1, 2022, doi: 10.2174/18748368-v16-e2208150.
(Scopus Q2, 55%).
- A. M. Al-Falahat et al., “Energy performance and economics assessments of a photovoltaic-heat pump system,” Results Eng., vol. 13, 2022, doi: 10.1016/j.rineng.2021.100324.
(Scopus Q1, 82% & Clarivate).

CONFERENCES

- 27-29 June 2024
Paper and Poster. “2024 IEEE- 9th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE)”. Ruse, Bulgaria.
- 25- 27 June 2024
Presenter. “Geographic Perspectives on Climate Change Mitigation in Urban and Rural Environments”. University of Salento, Italy
- 27-28 April 2024
Attendee. The 7th Jordan International Architectural Conference. Amman, Jordan.
- 21 -22 August, 2021
Paper and Oral presenter- “SEAS International Conference on Evolutionary Sciences, Engineering, Information Technology & Telecommunications (ESET) “. Istanbul, Turkey.
- 27th - 29th April 2017
Attendant- "Jordanian Life Sciences for Sustainable Development". Amman, Jordan.
- 14- 16 September 2016
Attendant- “CESBP Central European Symposium on Building Physics 2016 and BauSIM 2016”. Dresden, Germany.

Conference Organization & Session Convening

- Convener, *AI and Data Intelligence for Sustainable Architecture and Resilient Cities*. 11th World Summit: Civil Engineering – Architecture – Urban Planning Congress (CAUSummit 2026).
Sofia, Bulgaria, 31 August – 4 September 2026.
Session Code: CAUSummit-SS1.

WORKSHOPS ---

- Organizer. "Professional practice and building regulations". Architecture Department, Mutah University, Jordan. (23/4/2025).
- Organizer. "Freehand sketching for Architectural students". Architecture Department, Mutah University, Jordan. (05/7/2024).
- Guest Speaker. Presentation Title: "Green Technology and Solar Aesthetics: Sociological Insights into Architectural Photovoltaic Applications in Jordan". Scientific Day, Faculty of Architecture and Design, University of Petra, Jordan. Presented by: Saba Alnusairat and Jenan Abu Qadourah (05/6/2024).
- Organizer and Participant. "Designing an environmental buildings". This online workshop facilitated the exchange of design ideas for environmental buildings, bringing together students from various backgrounds. Participants provided and received feedback on their designs. Organized by: Universität der Künste Berlin (Germany) and Mutah University (Jordan). (21/12/2023).
- Attendee. "Cybersecurity and Risks on Cyber Brussels and its Possibilities". Organized by the Institute of Electrical and Electronics Engineers, Faculty of Engineering Branch, Mu'tah University, in cooperation with the National Center for Cyber Security and the Public Security Directorate (18/10/2023).
- Organizer. "Application of photovoltaic technologies for air conditioning of buildings.". Researcher Links Workshop – DAAD Fund (British Council). Organized by: Universität der Künste Berlin (Germany) and Mutah University (Jordan). (29/8/2023).
- Attendee. "Sustainability in Architectural Design and Its Impact on the Environment". Organised by AWWA student chapter. Speakers: Arch. Merna Alzurikat, Architect/Environmental Officer/Internal Auditor at Engicon, and Arch. Reem Halaseh, SDG Integration and Urban Specialist at UNDP (11/5/2023).
- Organizer. Public Lecture: "Green Buildings and Sustainability". Organized by: University of Petra, and Jordan Green Building Council. (27/3/2022).
- Participant. "The British Council Livable Passive Intelligent City International Researchers Link Workshop ". Faculty of Architecture and Design, University of Petra, Jordan. (14-17/11/2021)
- Attendee. "What if... / we lived in places of small distances?". Organized by the Scotland + Venice partnership. Online. (21.11.2021).
- Participant. "Towards effective central planning ". Jordanian Engineers Association, Jordan (24/11/2012).
- Participant. "Effective communication skills ". Jordanian Engineers Association. Jordan (01/11/2012).
- Participant. "Eco-house Planning and Design ". Queen Rania Al-Abdullah Center. Jordan University for Science and Technology, Jordan. Organized by Jordan Green Building Council (25/04/2011).
- Participant. "Working Together for Sustainability – On Campus & Beyond ". Faculty of Architecture and Design, Jordan University for Science and Technology, Jordan. Organized by Jordan Green Building Council (10/03/2010).

EDITORIAL BOARD MEMBERSHIP ---

- Editorial Board Member, *Discover Sustainability*, Springer Nature (2025–present). (Scopus Q2, Clarivate indexed).

THESIS EXAMINATION

- Panel Member (Thesis Examiner), Master's Thesis Defense, Faculty of Graduate Studies, Mutah University, December 2023.
Thesis title: *Managing Engineering Challenges Related to the Design and Implementation of Green Residential Buildings*.
Degree: M.Sc. in Engineering.

REVIEWER

2022-current Reviewer at the Following International Journals:

- Sustainable Cities and Society. (Scopus Q1). Publisher: Elsevier.
- Asian Journal of Civil Engineering. (Scopus Q2). Publisher: Springer Nature.
- Journal of Asian Architecture and Building Engineering. (Scopus Q1). Publisher: Taylor and Francis Ltd., Japan.
- Journal of Cleaner Production. (Scopus Q1). Publisher: Elsevier.
- Energy, Sustainability and Society. (Scopus Q1). Publisher: Springer Nature.
- Engineering, Construction and Architectural Management. (Scopus Q1). Publisher: Emerald Publishing.
- Results in Engineering. (Scopus Q1). Publisher: Elsevier.
- Scientific Reports. (Scopus Q1). Publisher: Springer Nature.
- Cogent Engineering. (Scopus Q2). Publisher: Cogent OA, United Kingdom.
- Environment, Development and Sustainability. (Scopus Q1). Publisher: Springer Nature.
- International Journal of Sustainability Policy and Practice. (Scopus Q3). Publisher: Common Ground Research Networks.
- Energy, Ecology and Environment. (Scopus Q1). Publisher: Joint Center on Global Change and Earth System Science of the University of Maryland and Beijing Normal University.
- Case Studies in Thermal Engineering. (Scopus Q1). Publisher: Elsevier.
- Architectural Engineering and Design Management. (Scopus Q1). Publisher: Taylor & Francis.
- Heliyon. (Scopus Q1). Publisher: Elsevier.
- Discover Sustainability. (Scopus Q1). Publisher: Springer Nature

TRAINING COURSE

- Electronic content development training course. (12 hours). The Center for Academic Development and Quality Assurance, Mutah University, Jordan. (2024).
- Academic leadership. (6 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2023).
- Developing a curriculum with a distinctive learning experience. (6 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2023).

- Preparing research and scientific research projects. (6 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2023).
- Modern statistical methods. (3 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2023).
- E-learning. (9 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2023).
- Course material design. (4 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- E-learning. (9 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- University education ethics. (2 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- Classroom management and organization. (4 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- Teaching methods and modern education. (6 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- Student Assessment Strategy. (5 hours). Academic Development and Quality Assurance Center, Mutah University, Jordan. (2021).
- IDA ICE Basic Course. (15 hours). The EQUA team. Universität der Künste Berlin, Germany. (2017).
- Designbuilder Simulation Software Course. (15 hours). Cardiff University /Welsh School of Architecture, United Kingdom. (2015).
- Preparing Engineering Drawings Course. (6 hours). Jordanian Engineers Association, Jordan (2013).
- Computer Aided Structural Design Using (PROKON) Course. (27 hours). Jordanian Engineers Association, Jordan (2012).

LANGUAGES

- Arabic: Native
- English: Excellent
- German: Beginner

LINKS

- University of Mutah Profile:
https://engineering.mutah.edu.jo/Lists/AcademicStaff/Disp_Form.aspx?ID=125
- Google Scholar Profile:
https://scholar.google.com/citations?hl=en&user=K2PCfUgAAAAJ&view_op=list_works&sortby=pubdate
- Scopus Profile: <https://www.scopus.com/authid/detail.uri?authorId=57483250600>
- ORCID Profile: <https://orcid.org/my-orcid?orcid=0000-0002-6003-5622>
- LinkedIn: <https://www.linkedin.com/in/jenan-abu-qadourah-6585b3108/>
- ResearchGate: <https://www.researchgate.net/profile/Jenan-Abu-Qadourah>