

Farah Al-Atrash

Curriculum Vitae

Personal Information

Name Dr.-Ing. Farah Al-Atrash
E-Mail Farah.alatrash@gnu.edu.jo
Nationality Jordanian
Mobile Number 00962 772 757 210

Education

Oct. 2015 - Dec. 2018 Doctor of Engineering, Faculty of Architecture, Karlsruhe Institute of Technology (KIT), Building Science Group, Germany

Feb. 2012 - Oct. 2013 Master of Engineering, Energy Efficient Design, Faculty of Architecture and Civil Engineering, Augsburg FH, Germany, Rating 1

Oct. 2006 - Jun. 2011 Bachelor of Science in Architecture, Department of Architecture, German-Jordanian University, Amman, Jordan

Oct. 2009 - Feb. 2010 Architecture Student at Coburg University, Germany

Jun. 2006 Al- Bayan High School” Tawjihi certificate, Amman –Jordan

Work Experience

Aug. 2023 till now **Associate Professor**
German Jordanian University, Amman, Jordan

Oct. 2023 till now **Director of Road Safety Center of Excellence (RSCE)**
German Jordanian University, Amman, Jordan

Oct. 2020 – Sep. 2023 **Head of the Urban Thinkers Campus “Shaping Urban Futures On Sustainable Housing, Mobility and Green Infrastructure in Amman, Jordan”, 2024**
Head of Department of Architecture and Interior Architecture –School of Architecture and Built Environment – German Jordanian University – Amman – Jordan

2019 - now **Member of the Study Plan, Sustainable Architecture and Consultation Committees at the Jordan Engineers Association**

Summer 2022 **Acting Dean of School of Architecture and Built Environment**

Sep. 2019 – Sep. 2023 **Coordinator of Professional Diploma in Quantity Surveying**

Feb. 2019 – Aug. 2023 **Assistant Professor**
German Jordanian University, Amman, Jordan

Feb. 2019 – now Committees

- Faculty representative at the university Council (2019)
- Coordinator for “Professional Diploma in Quantity Surveying
- Reviewer for “Building and Environment” Journal
- Reviewer for “Building Research and Information” Journal
- Member of the Quality Assurance Committee
- Head of the Enhancing the Indoor Environment Committee
- Head/ Member of the Graduate Studies Committee/ SABE
- Head of the E-Learning Committee/ SABE
- Member of the Sustainability Committee/ GJU
- Head/ Member of the Exhibition Committee/ SABE
- Entrance Exam for new students
- Head of the Library Committee/ SABE
- Head of (Dr. Thomas books/ Ibrahim Hashim library)/ SABE
- Appointment committee/ department
- Schedules and Exams committee/ department
- Tendering technical committee for several projects/items

List of Graduate and Undergraduate courses:

- SP 770 Sustainable Planning I
- GB760 Sustainable Building Systems
- ARCH 591 Graduation Project I/ Architecture
- ARCH 592 Graduation Project II/ Architecture
- ARCH363 Lighting Design
- ARCH 262 Utility Planning and Design I
- ARCH 362 Utility Planning and Design II
- IARC 316 Color, Light, and Space
- AC 227 Comparative History of Architecture
- ARCH 151 Building Construction Materials and Processes I
- ARCH 401 Special Topics in Architecture I
- ARC 371 Design of Sustainable Buildings
- ARCH 354 Project Management and Site Organization I
- ARCH 458 Specifications and Quantity Surveying
- ARC 111 Fundamentals of Design I
- ARC 131 Technical Graphic A
- ARC 132 Technical Graphic B

Masters theses dissertations supervised:

- Fostering Sustainability Through Smart Planning: Assessing Key Performance Indicators in Smart Cities Context: Al-Khaldi Medical District as a Case Study, Haya Amayreh, Master’s degree of Science in the field of Spatial Planning, May 2025
- Urban Agriculture in Amman: A Multifaceted Solution for Mitigating Challenges in Fertile Land Loss and Open Space Scarcity, Enas Zarreer, , Master’s degree of Science in the field of Spatial Planning, 2024
- Developing an Urban Environmental Quality Index for the Districts of Amman, Ola Daoud, Master’s degree of Science in the field of Spatial Planning, April 2025

- The Ammonite Citadel Park Project Involving Cultural, Historical and Social Surrounding, Razan Adel Tuama, Master's degree of Sciences in the field of Architectural Conservation
- Role of Green infrastructure in Climate Adaptation: The Case of Quraish Street, Nibal Ahmad Hameed, Master's degree of Science in the field of Spatial Planning
- Investigating Outdoor Thermal Comfort and Occupant Behaviour: The Case of Amman, Athar Al-Ayyoub, Master's degree of Science in the field of Spatial Planning
- Sustainable Urban Transport Towards Enhancing Air Quality: The Case of Amman, Jordan, Jameleh Saleh, Master's degree of Science in the field of Spatial Planning, July 2023
- Rehabilitation of Public Stairs Applying Smart City Indicators: The Case of AlHashimi AlJanoubi Neighborhood, Haneen Sultan, Master's degree of Science in the field of Spatial Planning, January 2024

Examiner of master's thesis:

- Inclusion of disabled people in the society of Amman, Nadeen Abdeldayem, Supervisor: Dr. Raed AlTal, 16.05.2019
- The Impact of International Agencies on the Specialty of Educational Environment in Jordan after Syrian Crises, Safa Sallam, Supervisor: Dr. Raed AlTal, 16.05.2019
- The Shift from a Conventional to an Engaging Approach in Interpretation and Presentation of Heritage Sites: The Case of Al-Mshatta Ummayad Palace, Saja Basim Ibrahim Hamad, Supervisor: Dr. Rami Daher, 28.07.2019
- Understanding Jabal Al-Hussein's Architectural Heritage of Modernity: Emergence, Typology and Significance, Sura Al-Halalsheh, Supervisor: Dr. Rami Daher, 29.07.2019
- A comparative analysis between the urban morphology and main service facilities of AlZaatri and AlAzraq refugee camps (permanence vs. impermanence), Rawand Khazaleh, Supervisor: Dr. Raed AlTal, 22.12.2019
- The Neolithic site of Ain Ghazal: going from a theoretical scenario for a reconstructed architecture model comprehensive interpretation program, Raghad Barakat. Supervisor: Prof. Dr. Thomas M. Weber-karyotakis, Co-supervisor: Dr. Nabil Abu Dayyeh, 02.01.2020
- Analysis of the Demand and Supply for New Multiple Housing Units in Amman, Rawan Rawhi khattab, Supervisor: Prof. Imad Al-Hashimi, April 2020.

- Spatial Distribution Analysis for Secondary Healthcare Facilities: Amman as a Case Study, Ahmad S. H. Abu Zeitoon, Supervisor: Prof. Dr. Imad Al-Hashimi, 07.05.2020.
- Roman constructed Mausolea in Jordan: Documentation and Classification of Roman funeral Buildings with barrel-vaulted Ceilings in northern and central Jordan, Ahmad al-Hariri, Supervisor: Prof. Dr. Thomas M. Weber- karyotakis, 18.05.2020.
- Assessing the potential of Dead Sea Development Zone as a TOURISM DESTINATION, Dina Yousef Alabdallat, Supervisor: Dr. Nabil Abu Dayyeh, 30.12.2021
- Exploring Mechanisms of Tactical Urbanism Application in Amman, Zaid Zwayyed, Supervisor: Dr. Raed Altal, Co- supervisor: Dr. Deyala Tarawneh, 30.12.2020
- Social Disparity and the Informal Use of Space: Exploring the Temporary Urbanism Approach in Amman, Nadia Al Mehdawi, Supervisor: Dr. Raed Altal, Co- supervisor: Dr. Deyala Tarawneh
- Strengthening Amman's Public Realm: A Comparative Analysis of Behavior Settings in Different Types of Public Open Spaces, Mohammad Abu Sammour, Supervisor: Maram Tawil, 19.5.2021
- Reviving Downtown Irbid Through Diagnosing Housing Demands, Dana Lafi, Supervisor: Dr. Raed Altal, 19.5.2021
- The COVID-19 Pandemic's Impact on Neighborhood Development in Amman, Jordan, Shereen Mansour Eid Ghishan, Supervisor: Dr. Raed Altal, Co- supervisor: Dr. Rania Aburamadan, 19.8.2021
- Studying, evaluating, and managing the structural (shelters), environmental and aesthetic condition of the archaeological remains in St. Stephen at Umm Al Rassas and Byzantine church at Alsawfyeh/Jordan, Najdat Hazaimh, Supervisor: Dr Nabil Abu Dayyeh, Co- supervisor: Dr Mahmoud Arienat
- A place understanding driven approach toward the adaptive reuse of Al-Kayed Pasha house in Souf-Jordan, Alaa Assaf, Supervisor: Dr. Rami Daher, 29.12.2021
- The Industrial Development for the Dead Sea Region, Fynana Al-Awadi, Supervisor: Dr. Raed Altal, Co- supervisor: Jawdat Al-Qsous, 24.5.2022
- Urban Resilience in Informal Settlements in Developing Countries: A Case Study in Jabal Al-Akhdar, Jordan, Naela Hamdan, Supervisor: Dr. Omaimah Ali Arja, 26.5.2022
- Reclaiming Public spaces: Towards Urban Green Spaces in Amman, Raneem Mualla, Supervisor: Maram Tawil, 07.8.2022

- Measuring indicators of smart growth principles, case study (Naour city-Amman), Yasmeeen Masri, Supervisor: Dr. Omaimah Ali Arja, 12.1.2023
 - The Effectiveness of Urban Intensification as a Sustainable Growth Containment Strategy in Amman, Tala Al-Sheikh, Dr. Raed Altal, 19.1.2023
 - Toward Smart Cities: 3D Cadaster as a Tool for Making 3D Smart City – The Case Study of Zarqa, Yazid Hamodah, Supervisor: Dr. Omaimah Ali Arja, 16/3/2023
 -
- 2018 – till now** **Researcher**
IEA-EBC Annex 79
- IEA-EBC Annex 79: Occupant-Centric Building Design and Operation.
- 2017 – 2021** **Researcher**
IEA-EBC Annex 69
- IEA-EBC Annex 69: Strategy and Practice of Adaptive Thermal Comfort in Low Energy Buildings.
- Subtask B: Criteria and guidelines for adaptive comfort and Personal Thermal Comfort Systems in standards.
- Subtask C: Practical learnings from exemplary adaptive buildings, supporting Subtasks A & B
- Oct. 2015 – Dec. 2018** **PhD researcher**
Karlsruhe, Germany
Karlsruhe Institute of Technology (KIT), Building Science Group (fbta)
- Project (Office adaptive thermal comfort and personal control over indoor environment in a Mediterranean hot summer climate_ the case of Amman/ Jordan).
- 2016 - 2017** **Researcher**
Karlsruhe, Deutschland
Karlsruhe Institute of Technology (KIT), Building Science Group
- Working on thermal comfort project (Durchführen von Komfortuntersuchungen im sanierten Kollegengebäude Mathematik des KIT).
- Carry out the research project from the field study phase to the final report submission.
- 2013-2015** **Lecturer**
German Jordanian University, Amman, Jordan
- Delivering lectures, seminars and tutorials;
 - Designing, preparing and developing teaching materials;

- Assessing students' coursework;
- Supervising students' research activities;
- Carrying out tasks related to the department;
- Evaluating performance and exams.

List of Undergraduate courses I have taught during employment at GJU.

- ARC 111 Fundamentals of Design I
- ARC 112 Fundamentals of Design II
- ARC 211 Architectural Design: Methods and Typologies
- ARC 214 Design of Commercial Buildings
- ARC 413 Design of Mixed-Use Buildings
- AC 227 Comparative History of Architecture
- AC 228 Architecture in the Islamic Context
- ARCH 363 Lighting Design
- ARCH 355 Interior Construction Works II

2017 – 2020

Consultant/ Project Liaison Officer

Greater Amman Municipality and Landeshauptstadt Dresden/Renovation of public family centre in Amman, Jordan, for energy efficiency

2012-2013

Architect

Höll + Partner Architekten, Würzburg, Germany

- Participated in the preparation of drawings required in the initial design and information gathering phase;
- Architectural drawing design and progress reporting on it;
- Followed company procedures and instructions;
- Performed any other work-related assignments.

Publications

- Al-Atrash, Farah Z. (2025) Evaluating Indoor Thermal Comfort in Jabal Amman, under review
- Samhour, M.; Abualeenein, M.; Al-Atrash, F. Enhancing Supply Chain Resilience Through a Fuzzy AHP and TOPSIS to Mitigate Transportation Disruption. Sustainability 2025, 17, 0.
- Al-Atrash, Farah Z., and Athar Al-Ayyoub (2023) Evaluating Urban Outdoor Thermal Comfort in Jabal Al Natheef Amman, Sustainability 15, no. 5: 4092. <https://doi.org/10.3390/su15054092>
- Al-Atrash, F., Hamdan, N., Mualla, R. (2023) Energy Efficient Shelter for the Displaced: Towards Sustainable Camps, Bauphysik. <https://doi.org/10.1002/bapi.202200043>
- Al-Atrash, F. Z., Hellwig, R. T., Wagner, A. (2022) Raumklima in Bürogebäuden - Wahrnehmung der individuellen Kontrolle und Nutzung von Anpassungsmöglichkeiten am Arbeitsplatz, Bauphysik. <https://doi.org/10.1002/bapi.202200026>
- Samhour, M., Al-Arabi, L. & Al-Atrash, F. Prediction and measurement of damage to architectural heritages facades using

convolutional neural networks. *Neural Computing & Applications*, 2022. <https://doi.org/10.1007/s00521-022-07461-5>

- Al-Atrash, F., Yaghi, A. Resilient teaching framework to produce outdoor thermal comfort and positive adaptation in public spaces- Amman. *Comfort at the Extremes*, 2020
- Hellwig, R. T., Teli, D., Schweiker, M., Choi, J-H., Lee, J. M. C., Mora, R., Rawal, R., Wang, Z., & Al-Atrash, F. Design of adaptive opportunities for people in buildings. In F. Nicol, H. B. Rijal, & S. Roaf (Eds.), *A Handbook of Resilient Thermal Comfort* Routledge. Routledge International Handbooks, 2022
- Al-Khatri, H., Al-Atrash, F. Occupants' Habits and Natural Ventilation in a Hot Arid Climate Advancements in Sustainable Architecture, *Advancements in Sustainable Architecture and Energy Efficiency*, igi-global.com, 2021, DOI: 10.4018/978-1-7998-7023-4.ch007
- Hellwig, R. T., Despoina, T., Schweiker, M., Choi, J-H., Lee, J. M. C., Mora, R., Rawal, R., Wang, Z. & Al-Atrash, F., Teaching The Concept Of Adaptive Thermal Comfort In Building Design Education, 2020, 16th Conference of the International Society of Indoor Air Quality & Climate International Conference on Indoor Air Quality and Climate, 2020, Online, South Korea, 2020-11-01
- Al-Atrash, F. Z., Hellwig, R. T., Wagner, A. (2020). The degree of adaptive thermal comfort in office workers in a hot Mediterranean summer climate - the case of Amman, Jordan. *Energy & Buildings* (May 2020)- Volume 223, <https://doi.org/10.1016/j.enbuild.2020.110147>
- Hellwig, R. T., Despoina, T., Schweiker, M., Choi, J-H., Lee, J. M. C., Mora, R., Rawal, R., Wang, Z. & Al-Atrash, F., Guideline to bridge the gap between adaptive thermal comfort theory and building design and operation practice, 6 May 2020, 11th Windsor Conference - Resilient Comfort, Proceedings. Roaf, S., Nicol, F. & Finlayson, W. (eds.). Ecohouse Initiative Ltd., p. 529-545 17 p. 068
- Gauthier, S., Bourikas, L., Al-Atrash, F., Bae, C., Chun, C., de Dear, R., Hellwig, R.T., Kim, J., K , The colours of comfort: From thermal sensation to person-centric thermal zones for adaptive building strategies, *Energy and Buildings* (2020), <https://doi.org/10.1016/j.enbuild.2020.109936>
- Schweiker, M., Abdul-Zahra, A., André, M., Al-Atrash, F., et al., The Scales Project, a cross-national dataset on the interpretation of thermal perception scales, *Scientific Data* (2020), DOI: 10.1038/s41597-019-0348-3
- Schweiker, M., Abdul-Zahra, A., André, M., Al-Atrash, F., et al., Evaluating assumptions of scales for subjective assessment of thermal environments – Do laypersons perceive them the way, we researchers

believe?, Energy and Buildings (2020), DOI: 10.1016/j.enbuild.2020.109761

- R.T. Hellwig , D. Teli , M. Schweiker , J. Choi ,M.C.J. Lee , R. Mora , R. Rawal , Z. Wang , F. Al-Atrash , A Framework for Adopting Adaptive Thermal Comfort Principles in Design and Operation of Buildings, Energy & Buildings (2019), doi: <https://doi.org/10.1016/j.enbuild.2019.109476>
- Applying adaptive principles: Developing guidance for planning practice: Proceedings of the 1st International Conference on: Comfort at the Extremes: Energy, Economy and, Heriot Watt University Dubai, 10-11 April 2019.
- Al-Atrash, F., Hellwig, R. T., & Wagner, A. (2018). Personal control over indoor climate in office buildings in a Mediterranean climate - Amman, Jordan. Windsor conference Proceedings 'Rethinking Comfort', April 2018, 269-314.
- Al-Atrash, F. Z. (2018). Adaptive thermal comfort and personal control over office indoor environment in a Mediterranean hot summer climate – the case of Amman, Jordan. (Dissertation). Karlsruhe Institute for Technology (KIT). DOI: 10.5445/IR/1000088485. <https://publikationen.bibliothek.kit.edu/1000088485>
- First results of case studies on thermal comfort and occupant behavior in office buildings in Amman/ Jordan_ OB-17_Joint IEA EBC Annex 66 and 69 Symposium on Occupant Behaviour and Adaptive Thermal Comfort, at the Technical University of Denmark, May 2017.
- Investigating adaptive thermal comfort in office buildings located in Amman/ Jordan_ IEB Comfort and Pain Symposium_ Perception of Thermal Comfort and Pain – are we assessing their dynamics right? Heidelberg, November 2017.

Scientific research

- Building Sustainable Futures: Strategic Partnership HS Trier and German Jordanian University. DAAD, 2024-2027. Co-PI from 2024-2025. PI Aug, 2025-2027.
- PR-GPS: Power Relations in Local Urban Governance: participation in Arab public space, Ta'ziz Partnerschaft – Netzwerke, 2023-2025, DAAD
- Sustainable MED Cities, Integrated tools and methodologies for sustainable Mediterranean cities, head of the Jordanian technical team
- Investigating Adaptive Comfort and Personal control in Indoor Educational Environment in Amman/ Jordan, German Jordanian University/ Seed Grants

- Sustainable Architecture/ LABi³ Project international, interdisciplinary, innovative, Hochschule Hannover (HsH)/ DAAD, 2022-2024
- Energy Efficient Portable Shelter for the Displaced, Study Group Mobility, DAAD,
- Settlement & renewable energy systems in desert regions, DAAD, 2019 – 2020
- Energetische Sanierung eines Familien-Zentrums in Amman, The German Federal Ministry for Economic Cooperation and Development (BMZ), Dresden/ Germany, 2019 – till now
- Annex 69: Strategy and Practice of Adaptive Thermal Comfort in Low Energy Buildings
 - Subtask A3: Quantification of uncertainty in thermal comfort instruments (objective and subjective).
 - Subtask B2: Provide design guidelines on how to use adaptive comfort for lowering energy in buildings including the usage of Personal Thermal Comfort Systems.
 - Subtask C1: Conduct instrumental indoor environment measurements to analyze the performance of target buildings from the view of indoor comfort, occupant behavior, and energy use.
- Annex 79: Occupant-Centric Building Design and Operation
 - Subtask 3: Applying occupant behaviour models in performance-based design process: develop systematic methods to better apply existing occupant models to achieve high-performance building designs with regards to comfort, usability, and energy performance. Moreover, Subtask 3 will make policy recommendations through both prescriptive and performance paths of building energy codes and standards.

Training

- 2008 – 2009: Trainee at Naseem Yarvas Architects Designers, Amman, Jordan. Working on several Architectural Projects in different phases (Concept, Design Development and Final Submission).
- Nov. 2010: Architectural Workshop, Coburg FH, Germany.
- June. 2013: Energy Efficiency Workshop, München, Germany.
- April. 2014: Energy Efficient Building Envelope Workshop, MED-ENEC program, Amman, Jordan.
- Oct. 2015 – Jan. 2018: Thermal comfort and occupant behaviour workshops, Karlsruhe, Germany.

- Energetische Sanierung eines Familien-Zentrums in Amman, The German Federal Ministry for Economic Cooperation and Development (BMZ), Dresden/ Germany, 28 August, 2019 – 2 September, 2019.
- Settlement & renewable energy systems in desert regions (Wadi Rum), German Jordanian University, Amman and Wadi Rum, Friday, Sep. 27, 2019 to Saturday, Okt. 5, 2019.
- Build it Green, Greater Amman Municipality, Amman, 6 June, 2019.
- Train the Trainer, Karlsruhe, 2020.
- Accreditation & Quality Assurance Commission for Higher Education Institutions (AQACHEI) & GIZ, June, 2022.
- British universities experience in E- Learning/ training, British Council, Oct. 2022 – March. 2023.
- Grant Proposal Writing, DAAD, March, 2024.
- Project Management, DAAD, August, 2025
- E-Learning, 2025
- Innovation Training GJU, 2024

Areas of Specialization

- Thermal comfort
- Personal Control
- Occupant behavior
- Environmental Viability of Buildings
- Energy Efficient Design
- Green and Sustainable Architecture
- LEED rating system
- Simulations and energy assessment
- Architectural Design
- Climatic Design
- Climatic Design trainer and lecturer
- Interior Design
- Working Drawings and Architectural Details
- Smart Cities
- SDGs

Selected Activities

I am actively engaged in student development and community services, promoting dialogue, knowledge exchange, and social responsibility. Through diverse academic, cultural, and community initiatives, I contribute to advancing sustainability, cultural exchange, social responsibility and student empowerment.

- Walk and Talk Activity, Road Safety Center of Excellence
- Ride and Talk Activity, Road Safety Center of Excellence

- Design of Traffic Parks in Aqaba Jordan, Road Safety Center of Excellence in cooperation with the Jordanian Traffic Institute / Public Security
- Iftar of Hope, Road Safety Center of Excellence
- Role of Universities in the Arab Region: Towards Sustainable Built Environment SABE/ GJU
- DIWAN workshop/ conference GJU/ Institut français du Proche-Orient (Ifpo)/ University of Jordan
- International Dialogue Antwork Amman
- Building a Culture of Trust, within universities, between universities, with students and with industry. British Council/ Advanced Higher Education
- Perception of Architecture in the Islamic Context/ Urban Development in the Islamic Context, ERASMUS+ INTERNATIONAL CREDIT MOBILITY/ Leipzig University
- Middle East Landscape Forum in Beirut Lebanon, American University of Beirut
- Online and blended learning, GJU/ Hannover HH
- The 7th Jordan International Architectural Conference on Architecture and AI, 2024, member of the scientific and organization committee
- Forum on Urban-Rural Linkages in Songyang, China, 2023

Computer skills

- MS-PowerPoint, MS- Access, MS-Windows, MS-Word, & MS-Excel
- IBM SPSS statistical analysis software
- R software environment for statistical computing and graphics
- Stata statistical software
- AutoCAD
- METEONORM Software
- Argos Software
- IDA ICE Building Energy Software
- DesignBuilder
- Adobe Photoshop, Adobe InDesign

Languages

- Arabic: Mother tongue
- English: Excellent in reading and writing (C2)
- German: Very good in reading and writing (C1)