

Farah Al-Atrash

Curriculum Vitae

Personal Information

Name	Farah Al-Atrash
E-Mail	Farah.alatrash@gju.edu.jo
Nationality	Jordanian

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 1.9
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
1994 - 2006	Al-Bayan Secondary School in Amman, Jordan

Work Experience

Oct. 2020 - till now	Head of Department of Architecture and Interior Architecture –School of Architecture and Built Environment – German Jordanian University – Amman – Jordan
Summer 2022 Sep. 2019 - till now	Acting Dean of School of Architecture and Built Environment Coordinator of Professional Diploma in Quantity Surveying
Feb. 2019 - till now	Assistant Professor German Jordanian University, Amman, Jordan <ul style="list-style-type: none">▪ Faculty representative at the university Council (one year 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▪ Member of the Enhancing the Indoor Environment Committee▪ Member of the Graduate Studies Committee

- Head of the E-Learning Committee/ SABE

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
- ARC 111 Fundamentals of Design I
- ARC 131 Technical Graphic A
- ARC 132 Technical Graphic B
- DES 130 FreeHand Sketching I
- 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

Masters theses dissertations supervised:

- 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

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 Ummayyad 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 Alsawyfieh/Jordan, Najdat Hazaimah, 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), Yasmine 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 Kollegiengebäude 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

2019 – till now

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., 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. Accepted

- 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>
- Samhouri, 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-Khatiri, 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

- PR-GPS: Power Relations in Local Urban Governance: participation in Arab public space, Ta‘ziz Partnerschaft – Netzwerke, 2023-2025, DAAD, 380,000 EUR.
- Investigating Adaptive Comfort and Personal control in Indoor Educational Environment in Amman/ Jordan, German Jordanian University/ Seed Grants, 25,764.37 JD.
- Sustainable Architecture/ LABi³ Project international, interdisciplinary, innovative, Hochschule Hannover (HsH)/ DAAD, 2022-2024

- Energy Efficient Portable Shelter for the Displaced, Study Group Mobility, DAAD, Appr. 15000 JD, 2022.
- 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. 2023.

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

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
- Adobe Photoshop, Adobe InDesign

Languages

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