

# Farah Al-Atrash

## Curriculum Vitae

### Personal Information

**Name** Farah Al-Atrash  
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**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, Rating “Very Good”, 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

**Feb. 2019 - till now** **Assistant Professor**  
**German Jordanian University, Amman, Jordan**

- Faculty representative at the university Council
- 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

### **List of Undergraduate courses:**

- 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

### **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.

**2018 – till now**

**Researcher**  
**IEA-EBC Annex 79**

- IEA-EBC Annex 79: Occupant-Centric Building Design and Operation.

**2017 – till now**

**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

**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, 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 1<sup>st</sup> 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

- 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.

## **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

## **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)