



<b>Name</b>	Ar. Prof. Dr. Waqas Ahmed Mahar			
<b>Designation</b>	Professor and Chairman			
<b>Department/Faculty</b>	Department of Architecture, Faculty of Architecture and Town Planning			
<b>Research Profile</b>	ORCID ID: <a href="https://orcid.org/0000-0003-1478-6246">https://orcid.org/0000-0003-1478-6246</a>			
	ResearchGate Profile: <a href="https://www.researchgate.net/profile/Waqas-Mahar">https://www.researchgate.net/profile/Waqas-Mahar</a>			
	Google Scholar Profile: <a href="https://scholar.google.com/citations?hl=en&amp;user=y_AErVkAAAAJ">https://scholar.google.com/citations?hl=en&amp;user=y_AErVkAAAAJ</a>			
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<b>Qualification</b>				
Year	Degree/Certificate	Name of the Institute/University	Field of study	
2021	PhD	University of Liège, Liège, Belgium	Architecture and Urban Planning	
2012	MS/M.Phil.	Universiti Teknologi Malaysia (UTM), Johor, Malaysia	Planning-Housing	
2009	Graduation	Mehran University of Engineering & Technology (MUET), Jamshoro, Pakistan	Architecture	
<b>Publications in HEC-Recognized Journals</b>				
S. No.	Title of Paper	Name of Journal	National/International	Publication date
1.	Experimental Investigation of Mechanical Properties of Concrete Mix with Lightweight Expanded Polystyrene and Steel Fibers	CivilEng	International	2024
2.	Effect of Street Asymmetry, Albedo and Shading on Pedestrian Outdoor Thermal Comfort in Hot Desert Climates	Sustainability	International	2024
3.	Street Design Strategies Based on Spatial Configurations and Building External Envelopes in Relation to Outdoor Thermal Comfort in Arid Climates	Sustainability	International	2024
4.	Assessment of Transit Congestion for Sustainable Urban Transport Management in Quetta, Pakistan	The Sciencetech	National	2023
5.	Urban Sprawl, Its Impact and Challenges: A Case Study of Quetta, Pakistan	Journal of Applied and Emerging Sciences	National	2022

6.	Parametric Performance Analysis of Cooling Potential of Earth-to-Air Heat Exchangers in the Hot and Humid Climates	Energies	International	2022
7.	Easy Movement Facilities for Users' Comfort in Shopping Malls in Clifton, Karachi, Pakistan	Journal of Xi'an Shiyu University, Natural Sciences Edition	International	2022
8.	LA MAISON DE VERRE (Myth of Transparency/Translucency and Light)	Journal of Xi'an University of Architecture & Technology	International	2022
9.	Factors That Influence Travelers' Willingness to Adopt Bus Rapid Transit (Green Line) Service in Karachi	Sustainability	International	2022
10.	How Tmrt Affects PET Assessment in Outdoor Environments: A Comparative Study	Journal of Art, Architecture and Built Environment	National	2022
11.	Architecture For "Other"? Building A Critical Account On Architecture "Othering" From Colonial To Post-Colonial Time (19th Century - Present Time)	Webology	International	2022
12.	Assessment of Human Outdoor Thermal Comfort in Palm Grove during the Date Palm Phenological Cycle	Atmosphere	International	2022
13.	Prediction of climate change effect on outdoor thermal comfort in arid region	Energies	International	2021
14.	Impact of passive energy efficiency measures on cooling energy demand in an architectural campus building in Karachi, Pakistan	Sustainability	International	2021
15.	Assessment of passive retrofitting scenarios in heritage residential buildings in hot, dry climates	Energies	International	2021
16.	Development of spatial distribution maps for energy demand and thermal comfort estimation in Algeria	Sustainability	International	2020
17.	Comparative analysis of indoor environmental quality of architectural campus buildings' lecture halls and its perception by building users, in Karachi, Pakistan	Sustainability	International	2020
18.	Sensitivity analysis of passive design strategies for residential buildings in cold semi-arid climates	Sustainability	International	2020
19.	An investigation of thermal comfort of houses in dry and semi-arid climates of Quetta, Pakistan	Sustainability	International	2019

#### **Papers Published in Conference Proceedings**

S. No.	Title of Paper	Name of Conference	National/ International	Date
1.	The assessment of outdoor thermal comfort inside oasis settlements in North Africa - Algeria	Journal of Physics: Conference Series, IOP Publishing	International	2021
2.	Dynamics Sensitivity analysis of glazing parameters and operational schedules on energy consumption and life cycle cost	Building Simulation	International	2019

3.	Building energy efficiency policies and practices in Pakistan: A literature review	AIP Conference Proceedings, AIP Publishing LLC.	International	2019
4.	Renewable energy technologies in Balochistan: Practice, prospects, and challenges	EESD 2018, Jamshoro, Pakistan	International	2018
<b>Papers Presented at Conferences</b>				
S. No.	Title of Paper	Name of Conference	National/ International	Date
1.	Materialization of Climate-Responsive Design Solutions for Residential Buildings	1st International Conference on Blurring the Barriers: The Interdisciplinary Value of Architecture	International	2024
2.	Energy, Climate and Thermal Comfort: A review of the existing situation in Pakistan	Conference on Quintessential Quetta IAPEX Quetta Chapter	National	2023
3.	Powering the future in a finite world: Housing, energy, fuel poverty and Thermal Comfort	Conference on Urban Regeneration/Revival. IAPEX Peshawar Chapter	National	2023
4.	Climate change, thermal comfort, and energy efficiency: Meeting the challenges of cities in the 21st century	Saving Our Cities: Looming Challenges and Data-driven Policy Making, Lahore, PK	National	2022
5.	Building Energy Efficiency Policies in Pakistan: Current Issues and Future Prospects	International Symposium on Architecture and Planning (ISAAP 2022), Lahore, PK	International	2022
6.	Study of Indoor Environmental Quality of Public-School Classrooms in Multan	2 <sup>nd</sup> ICEST 2022, D.G. Khan, Pakistan	International	2022
7.	Urban green spaces and their role in making cities sustainable: revisiting Multan city from 1988 to 2020	ICEST 2021, D.G. Khan, Pakistan	International	2021
8.	Indoor thermal comfort assessment of residential building stock in Quetta, Pakistan	ENHR 2018, Uppsala, Sweden	International	2018
9.	Structural defects in residential buildings: A study of Quetta, Pakistan	ICAET 2018, Quetta, Pakistan	International	2018
10.	Disaster mitigation strategies for adobe houses: A case study of District Awaran, Balochistan, Pakistan	ICAET 2018, Quetta, Pakistan	International	2018
11.	Methodology to determine housing characteristics in less developed areas in developing countries: A case study of Quetta, Pakistan	ENHR 2017, Tirana, Albania	International	2017
<b>Posters Presented at Scientific Conferences/Symposiums</b>				
S. No.	Title of Poster	Organizer	National/ International	Date
1.	Methodology for the design of climate-responsive houses for optimized thermal comfort in Quetta, Pakistan	RAOS, Brussels, Belgium	International	2018

2.	Thermal comfort in residential building stock of Quetta, Pakistan	Université Libre de Bruxelles, Brussels, Belgium	International	2018
3.	Methodology for the design and development of a sustainable house concept for Quetta, Pakistan	University of Liège, Belgium	International	2017
<b>Published Scientific Reports</b>				
S. No.	Title of the Report	Publisher	ISBN	
1.	Indoor thermal comfort assessment in residential building stock: A study of RCC houses in Quetta, Pakistan	SBD Lab, ULiège, Belgium	978-2-930909-14-1	
2.	An overview of housing conditions, characteristics and existing infrastructure of energy, water & waste systems in Quetta, Pakistan	SBD Lab, ULiège, Belgium	978-2-930909-11-0	
<b>Published News Articles</b>				
S. No.	Title of Article	Publisher	Date	
1.	Thermal comfort, energy management scenario of Pakistan	Pakistan Observer	2019	
<b>Awards and Achievements</b>				
S. No.	Awards, Achievements, and Recognitions	Organization	Date	
1.	Expert Member of the Board of Studies	Cecos University of I.T. and Emerging Sciences, Peshawar, Pakistan	Oct 2023 to date	
2.	Board Member of the Professional Development Board (PDB)	Pakistan Council of Architects and Town Planners (PCATP)	Oct 2023 to date	
3.	National Vice Chairperson	Academic Platform for Housing Research (APHR), Pakistan	Aug 2023 to date	
4.	Expert Member of the National Curriculum Committee (NCRC) for Architecture	Higher Education Commission (HEC), Pakistan	Mar 2023 to date	
5.	Vice Chairman	Institute of Architects, Pakistan (IAP) Quetta Chapter	Feb 2022 – Oct 2023	
6.	Honorary Fellow	Philippine Institute of Architects (PIA), Philippines	Feb 2022	
7.	FSA End of Thesis Funding	Faculty of Applied Sciences, University of Liège, Belgium	Jun 2020	
8.	National Scholarship Programme of the Slovak Republic (Not availed)	SAIA, Slovak Republic	Dec 2019	
9.	Most Global Minded Member	AIESEC in Limburg, Belgium	May 2016	
10.	HEC Pakistan PhD Scholarship (HRDI-UESTP)	Higher Education Commission (HEC), Pakistan	Jun 2015	
11.	Best Student Award (Gold Medal)	M.Sc. Planning-Housing, Universiti Teknologi Malaysia (UTM), Malaysia	Sep 2012	
12.	Junior of the Year Award	AIESEC in Universiti Teknologi Malaysia (UTM), Malaysia	2011	
13.	Education Endowment Fund	Education and Literacy Department, Government of Sindh	2004	

<b>Work Experience</b>				
S. No.	From (year)	To (year)	Name of the Institution/Organization	Position held
1.	Oct 2023	To date	Aror University of Art, Architecture, Design and Heritage, Sukkur, Pakistan	Chairman, Department of Architecture
2.	Oct 2023	To date	Aror University of Art, Architecture, Design and Heritage, Sukkur, Pakistan	Professor
3.	Feb 2022	Oct 2023	BUIITEMS, Quetta, Pakistan	Chairperson, Department of Architecture
4.	Aug 2013	Oct 2023	BUIITEMS, Quetta, Pakistan	Assistant Professor
5.	Jan 2013	Aug 2013	BUIITEMS, Quetta, Pakistan	Lecturer
6.	Jul 2012	Dec 2012	PPKKTAJBJ, Johor, Malaysia	Manager of Housing & Residential Care Facilities
7.	Jun 2011	Aug 2011	Universiti Tunku Abdul Rahman (UTAR), Setapak, Kuala Lumpur, Malaysia	Intern, Department of Built Environment
8.	Jun 2010	Jun 2012	The Global Architects, Hyderabad, Pakistan	Design Consultant/Advisor
9.	Feb 2010	Jun 2010	Mehran University of Engineering & Technology (MUET) Jamshoro, Pakistan	Intern, Department of Architecture
10.	Jan 2009	Jun 2010	The Global Architects, Hyderabad, Pakistan	Architect
11.	Jun 2006	Dec 2008	The Global Architects, Hyderabad, Pakistan	Intern
<b>Area of specialization</b>			<ul style="list-style-type: none"> <li>• Sustainable Architecture &amp; Urbanism</li> <li>• Human Thermal Comfort</li> <li>• Building Performance Simulation (BPS)</li> <li>• Housing</li> </ul>	
<b>Research Interest</b>			<ul style="list-style-type: none"> <li>• Architecture and Urbanism</li> <li>• Building Defects and Rework</li> <li>• Climate-responsive design</li> <li>• Design Decision-Support</li> <li>• Energy Efficiency in Buildings</li> <li>• Evidence-based Design</li> <li>• Indoor Environmental Quality (IEQ)</li> <li>• Research Methods</li> </ul>	
<b>Future Research Plans</b>			<ul style="list-style-type: none"> <li>• Improvement of Thermal Comfort in Buildings</li> <li>• Indoor Environmental Quality and Energy Efficiency in Buildings</li> </ul>	
<b>Research Projects</b>			<ul style="list-style-type: none"> <li>• Thermal Comfort, Energy Management and Renewable Energy Technologies in Pakistan: Practice, Prospects and Challenges</li> <li>• Housing Performance Characterisation and Thermal Comfort in Pakistan</li> <li>• Indoor Environmental Quality (IEQ) and Energy Performance of Educational Buildings in Pakistan</li> </ul>	
<b>PCATP Registration No.</b>			<ul style="list-style-type: none"> <li>• A-03012</li> </ul>	
<b>Additional Information:</b>				
<b><u>Research Students Supervised/Trained</u></b>				
<u>Level</u>		<u>Number of Students</u>		
Postgraduate/Master Students		10		
Undergraduate/Bachelor Students		15		

### **Membership of Institutional, National or International Scientific/Educational Advisory Board**

- **External Mentor** (Dec 2023 – to date)  
Balochistan Civil Services Academy (BCSA), Government of Balochistan, Pakistan
- **Expert Member** (Feb 2023 – to date)  
National Curriculum Review Committee (NCRC) of the Architecture Program  
Higher Education Commission (HEC), Pakistan
- **Faculty Supervisor** (Jun 2023 – Dec 2023)  
Balochistan Civil Services Academy (BCSA), Government of Balochistan, Pakistan
- **Associate Member** (Jan 2013 – to date)  
International Committee on Intangible Cultural Heritage (ICICH), ICOMOS

### **Service as Reviewer**

<u>Source</u>	<u>Number of Verified Reviews</u>
Web of Science	107
Reviewer Credits	129

### **Membership of Journals' Editorial Boards**

- **Topic Editor** (Feb 2023 - date)  
Frontiers in Sustainability (e-ISSN 2673-4524), Frontiers Media SA  
Research Topic "Advancing Sustainability, Battling Climate Change"
- **Editorial Board Member** (Oct 2022 - date)  
Journal of Building Design and Environment (JBDE) (e-ISSN 2881-0749)  
Omniscient Pte. Ltd., Singapore.
- **Topic Editor** (Jun 2022 – May 2023)  
Frontiers in Built Environment (e-ISSN 2297-3362), Frontiers Media SA  
Research Topic "Assessment of Users' Satisfaction in Public Spaces"
- **Review Editor** (Mar 2022 – Nov 2023)  
Frontiers in Sustainability (e-ISSN 2673-4524), Frontiers Media SA  
Editorial Board of Quantitative Sustainability Assessment (speciality section)

### **Workshops conducted/delivered**

- **Passive and Active Green Technologies**  
Organizer: School of Professional and Continuing Education (SPCE), the University of Central Asia (UCA), Kyrgyzstan  
Date: 30 Sep 2023
- **Design Decision Support Using the Principles of Climate Responsive Design**  
Organizer: Department of Architecture, Lahore College for Women University (LCWU), Lahore, Pakistan  
Date: 29 Mar 2022
- **Building Performance Simulation and Monitoring**  
Organizer: Department of Architecture, University of Management and Technology (UMT), Lahore, Pakistan  
Date: 28 Mar 2022
- **Usability Testing for Design Decision-Support**  
Organizer: Department of Architecture, Balochistan University of Information Technology, Engineering and Management Sciences (BUIITEMS), Quetta, Pakistan  
Date: 4-5 Mar 2020

### Service to University/Academia

- **Member of Doctoral/PhD Committee**  
Program: Architecture (PhD)  
Institutes: University of Liège, Belgium and University of Mohamed Khider Biskra, Biskra, Algeria  
Candidate: Dyna Chourouk Zitouni  
Supervisors: Prof. Dr. Shady Attia and Dr. Mohamed Elhadi Matallah  
Date: Nov 2023 - to date
- **Expert Member of the Board of Studies/Curriculum Committee**  
Program: Bachelor of Architecture (B.Arch.) and Master of Architecture (M.Arch.)  
Institute: CECOS University of IT and Emerging Sciences, Peshawar, Pakistan  
Dates: Jul 2023 – to date
- **Expert Member of the Board of Studies/Curriculum Committee**  
Program: Bachelor of Architecture (B.Arch.)  
Institute: Aror University of Art, Architecture, Design & Heritage, Sukkur, Pakistan  
Dates: May 2023 – Oct 2023
- **Member of Faculty Grievance Committee**  
Faculty: Faculty of Engineering & Architecture (FoE&A)  
Institute: BUIITEMS, Quetta, Pakistan  
Date: 11 Jan 2023 – Oct 2023
- **Member of Doctoral/PhD Committee**  
Program: Architecture (PhD)  
Institute: Stuckeman School, Penn State University, United States  
Candidate: Maryam Aman, Fulbright PhD Scholar  
Supervisors: Ute Poerschke and Jose Pinto Duarte  
Date: Apr 2022 - to date
- **External Examiner**  
Program: Bachelor of Architecture (B.Arch.)  
Institute: NFC Institute of Engineering and Technology (IET), Multan, Pakistan  
Date: January 2022
- **Expert Member of the Board of Studies/Curriculum Committee**  
Program: Master of Architecture (M.Arch.)  
Institute: Institute of Southern Punjab (ISP), Multan, Pakistan  
Event Date: 11 Aug 2021
- **External Examiner**  
Program: Bachelor of Architecture (B.Arch.), Bachelor of City and Regional Planning (B.CRP.)  
Institute: Mehran University of Engineering and Technology (MUET), Jamshoro, Pakistan  
Date: 2013-2015

### Service to Profession/Industry

- **Provincial Head/Coordinator of Sindh** (Oct 2023 - to date)  
Academic Platform for Housing Research (APHR), Pakistan
- **National Vice-Chairperson** (Aug 2023 - to date)  
Academic Platform for Housing Research (APHR), Pakistan
- **Provincial Head/Coordinator of Balochistan** (Jul 2022 – Oct 2023)  
Academic Platform for Housing Research (APHR), Pakistan
- **Vice-Chairman** (Feb 2022 – Oct 2023)  
Institute of Architects Pakistan (IAP), Quetta Chapter, Pakistan

- **Advisory Board Member** (Jul 2018 – Oct 2023)  
Institute of Development Studies and Practices (IDSP), Quetta, Pakistan

### **Research, Consultancy Services and Professional Assignments**

- Advisor, construction of flood-resilient adobe structures in various areas of Balochistan, a project of the Balochistan Rural Support Program (BRSP) (2022).
- Flood damage Assessment in Quetta, Pakistan (2022).
- Expert Member of the Sub-Technical Committee (on Construction and Plans for Operation), Green Building Code of Pakistan (2022).
- Advisor, the naming of buildings, infrastructure, and facilities. Defence Housing Authority (DHA), Quetta, Pakistan (Nov 2021 - Mar 2022).
- Monitoring of indoor air quality in commercial buildings/shops in Quetta
- Team Member, Sustainable Campus Development of the University of Community Development (UCD) a project of the Institute of Development Studies and Practices (IDSP), Quetta, Pakistan (Jul 2018 - to date).
- A study on urban sprawl, its impact and challenges in Quetta, Pakistan (2018-2020).
- Monitoring of the indoor climate of office buildings in Quetta, Pakistan. The indoor temperature and relative humidity were monitored in sixteen office buildings for one month (2018-19)
- Monitoring of indoor climate and air quality of residential buildings in Quetta, Pakistan. The indoor temperature, relative humidity and CO<sub>2</sub> concentrations were monitored in five residential buildings for two weeks (2019).
- Monitoring of the outdoor climate of Quetta, Pakistan. The air temperature and relative humidity were monitored for one year (2017-18).
- Monitoring of the indoor climate of residential buildings in Quetta, Pakistan. The indoor temperature and relative humidity were monitored in ten residential buildings for one year (2017-18).
- Interviews with the head of the household and transcription for ten houses in Quetta. Focusing on housing characteristics, income level, thermal comfort, energy consumption and energy efficiency of buildings.
- Documentation of housing conditions, characteristics and housing-related facilities in Quetta, Pakistan. A survey of 215 houses in 32 neighbourhoods (2016-17).
- Team Member, Vernacular Construction: Schools in Balochistan. World Bank Project (Mar 2014 - Aug 2014).
- Team Member, Documentation of damages during Awaran Earthquake, Awaran, Pakistan (2013).
- Team Member, Land Use Planning of Iskandar Puteri, Johor, Malaysia (2010).

### **Professional Memberships**

- Member, Pakistan Council of Architects and Town Planners (PCATP) A-3012
- Associate Member, Institute of Architects, Pakistan (IAP)
- Associate Member, Pakistan Institute of Interior Designers (PIID)
- Member, International Council on Monuments and Sites (ICOMOS)
- Member, International Committee on Intangible Cultural Heritage (ICICH)

### **Profile Links**

- LinkedIn <https://www.linkedin.com/in/architectwaqas/>
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- ORCID <https://orcid.org/0000-0003-1478-6246>
- Webpage <https://www.architectwaqas.com>