

MUHAMMAD TARIQ

Architect | Assistant Professor | Urban Climatologist Peshawar, Pakistan | +92 314 9863 775 | tariqjalsai@hotmail.com **LinkedIn:** linkedin.com/in/muhammad-tariq-80926229

PROFILE & EDUCATION

Executive Profile A mission-driven architect and urban climatology advocate dedicated to reimagining cities as **living laboratories for heat resilience**. My work bridges high-fidelity climate science with design pedagogy to deliver **thermal justice** in the Global South. Specializing in **hot-dry climates (+45°C)**, I utilize digital twin modeling and **nature-based solutions (NbS)** to transform streetscapes into sanctuaries of coolness and ecological memory. From academic research to international policy review, my focus remains on a singular goal: making shade a right, not a privilege.

Core Expertise

- **Urban Microclimate Alchemy:** Quantifying cooling effects of green infrastructure.
- **Digital Twin Modeling:** Proficient in **ENVI-met** for evidence-based climate adaptation.
- **Nature-Based Urbanism:** Retrofitting "asphalt jungles" into biodiverse, cooling corridors.
- **Vernacular Wisdom:** Documenting traditional passive cooling through the **Talash-e-Saya** initiative.

Education

- **Erasmus Mundus Joint Master's (MURCS) in Urban Climate & Sustainability** | 2021 – 2023
 - *Partner Universities:* Glasgow Caledonian University (**UK**), LAB University of Applied Sciences (**Finland**), HTW University (**Germany**), and University of Huelva (**Spain**).
 - *Thesis:* "Cooling Peshawar's Public Squares: Quantifying Green Infrastructure's Microclimate Magic with ENVI-met".
 - *Key Finding:* Proven air temperature reduction of **6°C** and surface reduction of **15–20°C** via optimized urban forests.
 - **Post Graduate Diploma in Environmental Design** | 2017 – 2020
 - Allama Iqbal Open University (AIOU), Islamabad.
 - **Bachelor of Architecture (B.Arch)** | 2008 – 2013
 - University of Engineering & Technology (UET) Peshawar.
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ACADEMIC & PROFESSIONAL EXPERIENCE

Academic Leadership

- **Assistant Professor** | Oct 2023 – Present
 - *Department of Architecture, CECOS University, Peshawar.*
 - **Impact:** Delivered curriculum enhancements leading to a **20% improvement in student performance** in urban ecology and sustainable design.
 - **Research:** Coordinated interdisciplinary workshops resulting in **three peer-reviewed publications.**
 - **Studio Focus:** Leading 4th-year studios aligned with **SDGs 5, 11, 13, and 16.**
- **Full-Time Lecturer** | Oct 2017 – Aug 2021
 - *Department of Architecture, CECOS University, Peshawar.*
 - Applied **participatory design** for urban nomad shelters and urban heat mitigation.

Research & International Consultancy

- **Expert Reviewer, IPCC Special Report on Climate Change and Cities (SR Cities)** | Oct 2025 – Present.
- **Founder & Consultant, EcoKoor** | Feb 2020 – Present
 - Translating climate research into implementable cooling masterplans and "thermal therapy" for communities.
 - **Talash-e-Saya (In Search of Shade):** A flagship initiative documenting **vernacular passive cooling** and historical urban heat strategies across Pakistan to inform modern design.
- **Research Intern, PilotGreen Project** | Oct 2023 – Dec 2023
 - *Helsinki, Finland (Hybrid).*
 - Researched innovative green infrastructure pilots across European cities, authoring technical insights for urban heat mitigation.

Professional Practice

- **Townplanner & Architect** | Jan 2016 – Sep 2017
 - *Fazaia Housing Scheme (Pakistan Airforce Project).*
 - Developed **stormwater management plans** and revitalized underutilized spaces through a democratic design approach.
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 - **Architect** | Jan 2015 – Jan 2016
 - *Different Architecture firms, freelance*
 - Developed designs for projects & site supervision on green buildings.
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RESEARCH, SERVICE & TECHNICAL SKILLS

Selected Publications & Contributions

- **Optimizing Urban Cooling:** A Comparative Analysis of Green Infrastructure in Peshawar. *Pakistan Social Sciences Review Journal* (2024).
- **Architecture Transformation of Slums:** Case study of Bela Korona, Nowshera. *International Journal of Human & Society* (2024).
- **Assessing Green Space Utilization for Social Harmony.** *International Journal of Humanities & Social Development Research* (COP29 Special Issue, 2024).
- **Redefining Mosque Minarets:** Functionalizing architectural elements for environmental health. *International Conference on Health & Environment* (2018).

International Speaking & Global Service

- **COP26 Speaker & Delegate:** Blue Zone, United Nations Climate Change pavilion (CTCN), Glasgow (2021).
- **UN Energy Speaker:** High-level dialogue on energy, thematic debate (2021).
- **InspireLi Award Jury:** Member for the world's largest architecture student competition since 2019.
- **ORIC Focal Person:** Leading departmental research and commercialization at CECOS University.

Technical Toolkit & Skills

- **Climate & Microclimate:** ENVI-met (Advanced), Urban Heat Mapping, Urban Digital Twins, Climate Data Analysis.
- **Digital Design:** AutoCAD, Revit, Google Sketchup, Adobe Photoshop, Lumion, and Autodesk Spacemaker.
- **Analytics & GIS:** GIS, Python.
- **Communication:** Digital storytelling and architectural writing (ArchiTimes, Banjaiga).
- **Languages:** English (Fluent), Urdu (Native), Pashto (Native), Basic Spanish and Finnish.

Professional Affiliations

- **Licensed Architect:** Pakistan Council of Architects & Town Planners (PCATP: A-05389).
- **Member:** Institute of Architects Pakistan (IAP); Executive Committee Member (2017–2019).
- **Climate Reality Leader:** Trained by the Al Gore program.
- **Sustainability Champion:** United People Global (UPG).
- **Professional Body:** Student Member, Institute of Environmental Management and Assessment (IEMA), 2023.

References

- **Professor Rohinton Emmanuel:** Director, BEAM Research Centre; Program Lead of MURCS, Glasgow Caledonian University. Rohinton.Emmanuel@gcu.ac.uk.
- **Paul Carroll:** Senior Lecturer in Environmental Technology, LAB University of Applied Sciences, Finland (Thesis Supervisor). paul.carroll@lab.fi.
- **Adnan Ahmad Khan:** HOD Architecture, CECOS University Peshawar. adnankhan@cecos.edu.pk.