Dr. Muhammad Yousaf Raza Taseer

PhD Civil Engineering (Structure and Materials)
Universiti Teknologi Malaysia, (UTM), Malaysia

Assistant Professor,
Laboratory of Structural & Materials (S&M-Lab)
Department of Building & Architectural Engineering
Bahauddin Zakariya University, BZU, Multan, Pakistan



Personal Information	**Pakistan Engineering Council (PEC) Registration No**. ARCH-ENGG/72 **D.O. B**= 05-08-1986 **Nationality**: Pakistani **Marital Status**: Married **CNIC:** 33202-5958583-7 **Passport No**. AA7825834 **Office Address:** Department of Building & Architectural Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, BZU, 80600, Multan, Pakistan. **Home Address:** House No.C-7, Engineering Staff Colony, Bahauddin Zakariya University, BZU, Bosan Road, 80600, Multan, Pakistan. **Emails**: engr.yousafraza@bzu.edu.pk, & engryousafraza44@gmail.com, **Cell No/WhatsApp**: (+92301-7694574) **WeChat ID**; yousafbzu
Research Objective	Research focused on sustainable LC^3–POFA cement systems and maturity-based strength prediction models to replace conventional testing, reduce CO_2 emissions, valorize industrial waste, and enable smart, low-carbon construction practices.
Research Technologies	Concrete maturity modeling, embedded temperature monitoring, LC^3–POFA sustainable cement technology, microstructural and thermal characterization, and strength prediction modeling.
Short Biography	Muhammad Yousaf Raza Taseer is an Assistant Professor and academic researcher in the Department of Building & Architectural Engineering, Bahauddin Zakariya University (BZU), Multan, Pakistan. He holds a PhD in Civil Engineering (Structures and Materials) from the Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM). His research focuses on concrete maturity theory, numerical and maturity-based modeling for predicting concrete strength, and sustainable cementitious systems, with particular emphasis on limestone calcined clay cement (LC^3) incorporating Palm Oil Fuel Ash (POFA) and other industrial/agricultural waste materials as supplementary cementitious materials (SCMs). His work integrates cement chemistry, hydration kinetics, and temperature–time-dependent behavior to develop practical, industry-oriented strength prediction frameworks. His research aims to provide reliable, time-efficient, and environmentally sustainable alternatives to conventional destructive testing, thereby reducing construction time, cost, and environmental impact. His work supports the circular economy through effective waste utilization in the construction industry and is closely aligned with the United Nations Sustainable Development Goals (UN SDGs), particularly SDG 9, SDG 11, SDG 12, and SDG 13, contributing to low-carbon infrastructure and sustainable built environments.

Educational Background:

Education Degree	Awarding University/Institute
PhD. ***Civil Engineering*** *(Structure & Materials)*	**University Teknologi Malaysia, (UTM), Malaysia** *(2022-*2026) ***Thesis Title****: "Strength-Predicting Model of Limestone Calcined Clay Cement (LC3) Mortar Incorporating Thermal-Activated Palm Oil Fuel Ash (POFA) as a Supplementary Cementitious Material".* ***Research Area****: Structure and sustainable materials* ***Research Grant****: Universiti Teknologi Malaysia Fundamental Research Grant (UTMFRG)*
M.Sc. *Building Engineering*	**University of Engineering & Technology (UET), Lahore** *(2010-*2015) ***Thesis Title****: "Feasibility study on the use of advanced materials for ducting in the HVAC system of a building".* ***Specialization****: Structural Engineering*
B.Sc. *Building & Architectural Engineering*	**University of Engineering & Technology (UET), Lahore** *(2004-*2009) B.Sc. Building & Architectural Engineering ***Final Year Project Title****: "Design and Cost Comparison of Residential Building by Using Alternative Construction Materials".*
F.Sc. *Science (Pre-Engineering*	**Board of Intermediate and Secondary Education (BISE), Faisalabad** *(2001-*2003) Intermediate with Science (Pre-Engineering Group))
Matriculation *(Science)*	**Board of Intermediate and Secondary Education (BISE), Faisalabad** *(1999-*2001) Science group

Professional Experience:

Period	Designation/Place
2026–to date	**Assistant Professor** (Permanent Faculty Member) Department of Building & Architectural Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, BZU, Multan, Pakistan
2015-2026	**Senior Lecturer** (Permanent Faculty Member) Department of Building & Architectural Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, BZU, Multan, Pakistan
2011-2012	**Senior Design Engineer** / (HVAC system of Buildings) A.A. Consultant (Pvt) Limited, Lahore, Pakistan.
2009-2011	**Assistant Executive Engineer/Work Charged Engineer** (Civil Works) 5th Provisional Building Division, (C&W Department), Government of Punjab, Pakistan.

Additional Professional/Administrative Experience:

2024-2026	**Research Grant Assistant (RGA)** Structure and Materials Laboratory (D04), Faculty of Civil Engineering, Universiti Teknologi Malaysia, UTM, Malaysia
2024-2025	**Elected General Secretary** International Student Society-Central, Universiti Teknologi Malaysia, UTM, Malaysia
2019–2022	**Member of Senate** (Highest Academic and administrative Authority of University), Bahauddin Zakariya University**,** BZU, Multan, Pakistan
2019–2022	**Member of Syndicate** (Highest Legislative/Competent Authority of University), Bahauddin Zakariya University**,** BZU, Multan, Pakistan
2020-2022	**Member of the Annual Examination Implementation Committee** Bahauddin Zakariya University**,** BZU, Multan, Pakistan

2015-2019	**In-charge Examination** Department of Building & Architectural Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, BZU, Multan, Pakistan
2022-2023	**Director Student Affairs (DAS)** Department of Building & Architectural Engineering, Faculty of Engineering & Technology, Bahauddin Zakariya University, BZU, Multan, Pakistan
2015–2017	**Member, Admission Committee** Department of Building & Architectural Engineering, BZU, Multan, Pakistan.

Professional Certifications & Trainings

Years	Name and Place	Certificate Award
2014	Emergency Services Academy (Rescue 1122), Lahore, Pakistan	Certificate of award for successful completion of "**Community Action for Disaster Response (CADRE) BASIC COURSE**"
2014	Emergency Services Academy (Rescue 1122), Lahore, Pakistan	Certificate of award f or successful completion of **"CADRE TRAINING FOR INSTRUCTOR (TFI)."**
2014	Emergency Services Academy (Rescue 1122), Lahore, Pakistan	Certificate of award for successful completion of "**CADRE INSTRUCTOR WORKSHOP (IW)."**
2015	Pakistan Engineering Council (Bahauddin Zakariya University, Multan, Pakistan)	Certificate of Participation in Continuing Professional Development (CPD) Programme on "**STONE MASTIC ASPHALT"**
2015	Pakistan Engineering Council (Bahauddin Zakariya University, Multan, Pakistan)	Certificate of Participation in Continuing Professional Development (CPD) Programme on "**CONSERVATION & ADAPTIVE REUSE OF HISTORICAL BUILDINGS**"
2015	Pakistan Engineering Council (Bahauddin Zakariya University, Multan, Pakistan)	Certificate of Participation in Continuing Professional Development (CPD) Programme on "**APPLICATION of GIS &REMOTE SENSING IN ENGINEERING**"
2016	Pakistan Engineering Council (Bahauddin Zakariya University, Multan, Pakistan)	Certificate of Participation in Continuing Professional Development (CPD) Programme on "**RECYCLING of FLEXIBLE PAVEMENTS"**
2018	Pakistan Engineering Council (Bahauddin Zakariya University, Multan, Pakistan)	Certificate of Participation in Continuing Professional Development (CPD) Programme on "**SCARCITY of WATER IN PAKISTAN: CAUSES & REMEDIES"**
2018	Election Commission of Pakistan, ECP (Government College of Science, Multan, Pakistan)	Certificate of Participation in "**TWO-DAY TRAINING OF PRESIDING OFFICERS and Sr. ASSISTANT PRESIDING OFFICERS-GE 2018"**
2018	Department of Civil Engineering, Bahauddin Zakariya University, Multan, Pakistan	Certificate of Participation in **"OUTCOME BASED EDUCATION & SAR DEVELOPMENT"**
2022	Quality Enhancement Directorate (Bahauddin Zakariya University, Multan, Pakistan	Certificate of Participation in **"ONE DAY WORKSHOP ON PLAGIARISM & RESEARCH ETHICS"**

2024	National Zoo Melaka, Malaysia	Certificate of Participation in **"ZOOLUNTEER"**
2024	Johor National Parks, Malaysia	Certificate of Participation as **"THE GEOGRAPHICAL MARKER"** located Tanjung Piai, Johor National Park, Malaysia
2025	University Teknologi Malaysia, UTM, Malaysia	Certificate of Participation as **"MODERATOR FOR FINAL YEAR PROJECTS PRESENTATION 2024**

International Exposure:

Duration	Country
4-years	Malaysia (2022-2026)

Scientific Memberships:

1. Registered Engineer with Pakistan Engineering Council (PEC) since 2010

Research Interests/Area:

Research Technologies	
○ Concrete Maturity ○ Sustainable construction materials ○ Supplementary cementitious materials (SCMs) ○ Carbon capture & Storage (CCS) Technology ○ Building Construction Techniques	○ Universal Testing Machine (UTM) ○ HVAC System of Building ○ Compression Machine ○ Construction Management ○ Project Management ○ Risk Management
Research Methodology	
○ Experiments and Instrumentation ○ Microstructure analysis ○ Maturity Methods and equations	○ Numerical Modeling ○ Strength prediction ○ Optimization
Research Software's	
○ Microsoft Office ○ Profix ○ Origin Pro. ○ AutoCAD ○ Turnitin ○ QuilBot ○ Grammarly	○ REF-N-WRITE ○ Visio ○ Adobe Photoshop ○ Mendeley Reference Manager

Important Links:

Google Scholar:	https://scholar.google.com/citations?hl=en&user=7WXGWVYAAAAJ
ResearchGate:	https://www.researchgate.net/profile/Muhammad_Taseer?ev=hdr_xprf
ORCID ID:	https://orcid.org/0000-0002-1256-0385
PEC membership:	https://verification.pec.org.pk/v/eV/sED/i.aspx?eid=31382F303030303732
Faculty BZU:	https://bzu.edu.pk/view_faculty.php?deptID=20&facultyID=1501

Research Achievements:

Journal Articles (First authors/co-authors)		22
Students Supervised		05
Google Scholar	Citations	77
	h-index	4
	i10-index	1

Journal Publications:

#	Year	Journal Name, Vol, & Issue	Title and Authors
1	2020	*Technical Journal, University of Engineering and Technology UET Taxila, Pakistan, Vol. 25, pp. 33–40, Issue 2*	*Earth-Tube System to Control Indoor Thermal Environment in Residential Buildings* *T. A. Khan, K. Shabbir, M. M. Khan, F. A. Siddiqui, M. Y. R. Taseer, S. Imtiaz* https://tj.uettaxila.edu.pk/index.php/technical-journal/article/view/1174
2	2021	*Fresenius Environmental Bulletin, Vol. 30, pp. 7375–7383, Issue 06B*	*Investigation of Water-Vapor Adsorption onto Metal–Organic Frameworks (MOFs) for Greenhouse Air-Conditioning Application* *Sahrish Ashraf, Muhammad Sultan, Ghulam Hussain, Shazia Noor, Hadeed Ashraf, Takahiko Miyazaki, Redmond R. Shamshiri, Rabia Kanwal, Muhammad H. Mahmood, Yousaf R. Taseer, Yasir Niaz* https://www.atb-potsdam.de/en/research/research-programs/en-individualisierte-tierhaltung/projects/project/aufsaetze-in-referierten-fachzeitschriften/investigation-of-water-vapor-adsorption-onto-metal-organic-frameworks-mofs-for-greenhouse-air-conditioning-application
3	2021	*Energies, Vol. 14, pp. 1–21, Article 1097*	*Dynamic Evaluation of Desiccant Dehumidification Evaporative Cooling Options for Greenhouse Air-Conditioning Application in Multan (Pakistan)* *Hadeed Ashraf, Muhammad Sultan, Redmond R. Shamshiri, Farrukh Abbas, Muhammad Farooq, Uzair Sajjad, Hafiz Md-Tahir, Muhammad H. Mahmood, Fiaz Ahmad, Yousaf R. Taseer, Aamir Shahzad, Badar M. K. Niaz* https://www.mdpi.com/1996-1073/14/4/1097
4	2021	*Fresenius Environmental Bulletin, Vol. 30, pp. 7163–7175, Issue 06B2021*	*Effect of Curing Regimes on Compressive Strength and Corresponding Performance Evaluation of Palm Oil Fuel Ash and High-Performance Concrete: A Review* *Nadia Riaz, Muhammad Sultan, Riz Ahmad, Muhammad A. Imran, Yousaf R. Taseer, Muhammad Arsalan, Aamir Shahzad, Shazia Hanif, Zawar Hussain* https://ubmr.hds.hebis.de/EdsRecord/8gh%2C151461403#1 https://www.researchgate.net/publication/351273696_EFFECT_OF

			_CURING_REGIMES_ON_COMPRESSIVE_STRENGTH_AND_CORRESPONDING_PERFORMANCE_EVALUATION_OF_PALM_OIL_FUEL_ASH_AND_HIGH-PERFORMANCE_CONCRETE_A_REVIEW https://www.cqvip.com/authorservice/00854JP1MPC82JP06PD02JP1MPDO8?type=1&utm_source=chatgpt.com
5	2021	*Fresenius Environmental Bulletin, Vol. 30, pp. 10728–10737, Issue 9*	*GIS Assessment for Groundwater Quality of District Multan, Pakistan* *Muhammad H. Mahmood, Zahid M. Khan, Muhammad Sultan, Zawar Hussain, Amman Ullah, Shazia Hanif, Yousaf R. Taseer, Muhammad A. Imran, Riaz Ahmad, Tallat Mehmood, Muhammad Aleem* https://scholar.google.com.pk/scholar?q=Fresenius+Environmental+Bulletin,+Volume+30,+Issue+9+(2021),+pages+10728%E2%80%9310737,+PSP.&hl=en&as_sdt=0&as_vis=1&oi=scholart&ntpr=&sgst=1795279466_AUjE6Y6gdMGnxQRYwulYLHStlE59ktEli5_TECiQm7nD_2Eg6w https://www.researchgate.net/profile/Amman-Ullah-2/publication/396815764_GIS_ASSESSMENT_FOR_GROUND_WATER_QUALITY_OF_DISTRICT_MULTAN_PAKISTAN/links/68f9fd59220a341aa157254e/GIS-ASSESSMENT-FOR-GROUNDWATER-QUALITY-OF-DISTRICT-MULTAN-PAKISTAN.pdf
6	2022	*Technical Journal, University of Engineering and Technology UET Taxila, Pakistan, Vol. 27, pp. 1–9, Issue 3*	*Experimental Study of Fire Behavior of Polyvinyl Chloride (PVC) on Masonry* *F. Saleem, A. Arshad, M. Y. R. Taseer* https://tj.uettaxila.edu.pk/index.php/technical-journal/article/view/1609
7	2024	*Proceedings of the Pakistan Academy of Sciences: A. Physical and Computational Sciences, Vol. 61, pp. 145–152, Issue 2*	*Determination of Critical Slip Surface in Loose Rock Slope Stability Analysis* *Zulkifl Ahmed, Sumra Yousuf, Mahwish Zahra, Anum Aleha, Abid Latif, Tahir Sultan, Tanveer Ahmad Khan, Muhammad Yousaf Raza Taseer* https://ppaspk.org/index.php/PPAS-A/article/view/1434
8	2024	*Proceedings of the Pakistan Academy of Sciences: A. Physical and Computational Sciences, Vol. 61, pp. 293–302, Issue 3*	*Numerical Study on Failure Mechanism of Rock Slope Formed by Mudstone at Girdu, Pakistan* *Zulkifl Ahmed, Sumra Yousuf, Muhammad Rizwan, Muhammad Yousaf Raza Taseer, Muhammad Qasim Sultan, Mahwish Zahra, Anum Aleha* https://ppaspk.org/index.php/PPAS-A/article/view/1490

9	2025	*Malaysian Construction Research Journal (MCRJ), Special Issue, Vol. 24, pp. 250–264, Issue 1*	*A Framework to Enhance the Adoption of Building Information Modelling in the Construction Industry of Pakistan* *Anees Ahmed Vighio, Mohsin Ali, Muhammad Saleem Raza, Yahua Hussain Ali, Nafees Ahmed Memon, Muhammad Yousaf Raza Taseer* https://www.cream.my/data/cms/files/MCRJ%20Special%20Issue%20Volume%2024%2C%20No_1%2C%202025%287%29.pdf?iframe&utm_source=chatgpt.com https://www.researchgate.net/publication/391635795_A_FRAMEWORK_TO_ENHANCE_THE_ADOPTION_OF_BUILDING_INFORMATION_MODELLING_IN_THE_CONSTRUCTION_INDUSTRY_OF_PAKISTAN
10	2025	*Spectrum of Engineering Sciences, Vol. 3, pp. 992–1002, Issue 9*	*Mechanical Behavior and Experimental Evaluation of Bamboo Bundles as Sustainable Reinforcement in Beam Design* *Aalia Faiz, Dr. Shimza Jamil, Waqas Ahmad, Fatima Mehvish, Imran Ali Channa, Muhammad Yousaf Raza Taseer* https://thesesjournal.com/index.php/1/article/view/1094
11	2025	*Construction of Optimized Energy Potential, Vol. 14, pp. 27–35*	*Analysis of the Use of Fiber Concrete in Lintel Beams as an Alternative to Traditional Prefabricated Solutions* *Szymon Saczyński, Anees Ahmed Vighio, Muhammad Yousaf Raza Taseer* https://reference-global.com/article/10.17512/bozpe.2025.14.03
12	2025	*Annual Methodological Archive Research Review, Vol. 3, pp. 870–900, Issue 8*	*Innovative Silicate-Cement Injection Framework for Seepage Mitigation in Sandy Foundations: Optimized Mix Design, Strategic Application, and Integrated Project Management Perspectives* *Ahmer Ali Malik, Salman Jafar, Muhammad Yousaf Raza Taseer, Shabeer Ahmad, Khalid Rehman, Arshad Ali Khan, Amir Ghafoor* https://www.amresearchjournal.com/index.php/Journal/article/view/621
13	2025	*Spectrum of Engineering Sciences, Vol. 3, pp. 15–38, Issue 12*	*A Unified Predictive Design Method for Seismic Bearing Capacity of DSCB Beam Connections Incorporating Correction Factors, Validation and Recommendations* *Muhammad Zain Asghar, Waseem Khan, Muhammad Yousaf Raza Taseer* https://thesesjournal.com/index.php/1/article/view/1652
14	2025	*Annual Methodological Archive Research Review, Vol. 3, pp. 378–429, Issue 9*	*Concrete Innovation for Super-Tall Buildings: Risk Management Frameworks and Structural Innovations with High-Strength and Self-Consolidating Concrete (Case of the Burj Khalifa)* *Aalia Faiz, Dr. Shimza Jamil, Engr. Fashia Nadri, Muhammad Yousaf Raza Taseer, Muhammad Ali, Ali Ajwad* https://amresearchjournal.com/index.php/Journal/article/view/791

15	2025	*Mehran University Research Journal of Engineering and Technology, Vol. 44, pp. 120–131, Issue 3*	*Predicting the Compressive Strength of Limestone Calcined Clay Cement (LC3) Mortars with POFA via Maturity Method* *Muhammad Yousaf Raza Taseer, Ahmad Razin Zainal Abidin, Shafiq Ishak* *https://murjet.muet.edu.pk/index.php/home/article/view/307*
16	2025	*Spectrum of Engineering Sciences, Vol. 3, pp. 446–452, Issue 6*	*Experimental Investigation of the Effects of Pressure on the Mechanical, Thermal, and Microstructural Properties of Clay-Based Geopolymers* *Saleemullah, Ameer Hamza, Asma Qayoom, Muhammad Yousaf Raza Taseer, Syed Muhammad Shakir Bukhari, Muhammad Naveed Khalil* *https://thesesjournal.com/index.php/1/article/view/477*
17	2025	*Dialogue Social Science Review (DSSR), Vol. 3, pp. 109–126, Issue 10*	*From Aesthetics to Algorithms: A Critical Review of Landscape Architecture Principles in the Digital Era* *Sumra Yousif, Muhammad Yousaf Raza Taseer, Nyla Mansha, Zulkifl Ahmed, Sunera Imtiaz* *https://dialoguesreview.com/index.php/2/article/view/1125?articlesBySimilarityPage=45*
18	2025	*Stochastic Environmental Research and Risk Assessment, Vol. 39, pp. 1091–1108*	*Effect of Different Likelihood Measures on Parameter Conditioning and Model Uncertainty* *Faisal Baig, Mehmet Cuneyd Demirel, Muhammad Yousaf Raza Taseer, Assad Kassem, Mohsen Sherif* *https://link.springer.com/article/10.1007/s00477-025-02909-1*
19	2025	*Scholars Journal of Physics, Mathematics and Statistics, Vol. 12, pp. 149–160, Issue 5*	*Prediction of Strength Properties of Soft Soil Using Machine Learning Techniques* *Muhammad Aqib, Usama Waseem, Muhammad Awais, Muhammad Talha, Hassan Muhammad, Muhammad Yousaf Raza Taseer, Nowroz Khan, Abid Jamil Afridi, Sher Ali* *https://saspublishers.com/article/22418/*
20	2026	*Annual Methodological Archive Research Review Vol. 4, pp. 174–186, Issue 1*	*A New Optimization-Based Intelligent Method For Evaluation Of Road Embankment Slope Stability* *Hafiza Rafia Tahira, Sumra Yousuf, Nyla Mansha, Umbrin Shahid, Muhammad Yousaf Raza Taseer, Rabia Maqbool* *https://amresearchjournal.com/index.php/Journal/article/view/1490*
21	2026	*Mehran University Research Journal of Engineering and Technology* *2026, 45(4), 58-83*	*Mapping Three Decades of Municipal Solid Waste Management Research: A Bibliometric Analysis of Trends, Hotspots, and Future Directions* *Nida Rabab, Muhammad Safar Korai, Zeeshan Khan, Anees Ahmed Vighio, Rasool Bux Mahar, Muhammad Yousaf Raza Taseer, Nishan-E-Hyder Soomro, Haniya Batool Ansari* *https://murjet.muet.edu.pk/index.php/home/article/view/543*

External Examiner/Supervisor

	B.Sc. Architecture | NFC, Institute of Engineering & Technology (IET), Multan, Pakistan
1.	Thesis Title: Final Year Project, Design of a High-rise building by using AutoCAD.

Teachings/ Courses Taught:

	B.Sc. Building & Architectural Engineering
1.	Construction and Building Materials-I
2.	Architectural Design-I
3.	Architectural Design-II
4.	Architectural Design-III
5.	Architectural Design-Iv
6.	HVAC System of Building
7.	Health and Safety in Building
8.	Construction and Building Materials-II
9.	Advanced Concrete Technology

Undergraduate and Postgraduate Courses Developed:

	B.Sc. Building and Architectural Engineering
1.	Advanced Construction Technology
2.	HVAC system of Buildings
3.	Architectural Design
4.	Buildings and Construction Materials
5.	Occupational Health & Safety
6.	Building Safety and Risk Management

Professional References

1.	Malaysia	***Assoc. Prof Dr. Ahmed Razin Zainibdin @ MTAIB, PhD (Imperial College London)*** Department of Structure and Materials, Faculty of Civil Engineering, Universiti Teknologi Malaysia, UTM, 81310, Malaysia
2.	UAE	***Dr. Faisl Baig, PhD*** Postdoctoral Researcher at the Desert Environment Research Center (DERC), United Arab Emirates University.
3.	Pakistan	***Prof. Mudassar Munir Khan, PhD (University of Auckland)*** Professor, Department of Civil Engineering, Bahauddin Zakarayia University, BZU, Multan, Punjab, Pakistan