

Dr. Muhammad Yousaf Raza Taseer

*PhD Civil Engineering (Structure and Materials) (UTM),
Malaysia*



Personal Information	PEC#ARCH. ENGG/7, DOB= 05-08-1986, Pakistani National, Married.		
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General Secretary (2024-2025)			
International Student Society (ISS)Central, Universiti Teknologi Malaysia, UTM, Malaysia			
Research Achievements	Journal Articles (First authors/co-authors)	19	(Impact Factor: 31.7+)
	Conference Publications	1	
Google Scholar	Citations	77	
	h-index	4	
	i10-index	1	
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 has earned his 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		

Education:

2026	Ph.D (Civil Engineering)	University Teknologi Malaysia (UTM), Malaysia Research Field: Structural engineering and sustainable construction materials
2015	M.Sc. (Hons.) (Building Engineering)	University of Engineering & Technology (UET), Lahore Specialization: Structural Engineering
2009	B.Sc. Building & Architectural Engineering	University of Engineering & Technology (UET), Lahore B.Sc. Building & Architectural Engineering
2003	Intermediate (F.Sc. Pre-Engineering)	Board of Intermediate & Secondary Education (BISE), Faisalabad Pre-Engineering

Important Links:

Google Scholar: https://scholar.google.com/citations?view_op=list_works&hl=en&user=7WXGWVYAAAAJ

PEC membership: <https://verification.pec.org.pk/v/eV/sED/i.aspx?eid=31382F303030303732>

International Exposure:

2022-2026	Malaysia
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Scientific Memberships:

- o Pakistan Engineering Council (PEC) (PEC# ARCH/72)
- o Higher Education Commission (HEC)
- o Pakistan Engineering Congress

Research Interests/Area:**Research Technologies**

- o Concrete Maturity
- o Sustainable construction materials
- o Supplementary cementitious materials (SCMs)
- o Carbon capture & Storage (CCS) Technology
- o Building Construction Techniques
- o Universal Testing Machine (UTM)
- o Compression Machine
- o Electrical System of Buildings
- o HVAC System of Building
- o Construction Management
- o Project Management
- o Risk Management

Research Methodology	
○ Experiments and Instrumentation	○ Numerical Modeling
○ Microstructure analysis	○ Strength prediction
○ Maturity equations	○ Optimization
Research Software's	
○ Microsoft Office	○ REF-N-WRITE
○ Profix	○ Python
○ Origin Pro.	○ Machine Learning
○ AutoCAD	○ Visio
○ Turitin	○ Adobe Photoshop
○ QuilBot	○ Mendeley Reference Manager
○ Grammarly	

Journal Articles (Impact Factor: 31.7+)

#	Year	Journal Name, Vol, & Issue	Title and Authors
1.	2020	<i>Technical Journal, University of Engineering and Technology UET Taxila, Pakistan, Vol. 25, pp. 33–40, Issue 2</i>	<i>Earth-Tube System to Control Indoor Thermal Environment in Residential Buildings</i> T. A. Khan, K. Shabbir, M. M. Khan, F. A. Siddiqui, M. Y. R. Taseer , S. Imtiaz
2.	2021	<i>Fresenius Environmental Bulletin, Vol. 30, pp. 7375–7383, Issue 06B</i>	<i>Investigation of Water-Vapor Adsorption onto Metal–Organic Frameworks (MOFs) for Greenhouse Air-Conditioning Application</i> 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
3.	2021	<i>Energies, Vol. 14, pp. 1–21, Article 1097</i>	<i>Dynamic Evaluation of Desiccant Dehumidification Evaporative Cooling Options for Greenhouse Air-Conditioning Application in Multan (Pakistan)</i> 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
4.	2021	<i>Fresenius Environmental Bulletin, Vol. 30, pp. 7163–7175, Issue 06B2021</i>	<i>Effect of Curing Regimes on Compressive Strength and Corresponding Performance Evaluation of Palm Oil Fuel Ash and High-Performance Concrete: A Review</i> Nadia Riaz, Muhammad Sultan, Riz Ahmad, Muhammad A. Imran, Yousaf R. Taseer , Muhammad Arsalan, Aamir Shahzad, Shazia Hanif, Zawar Hussain
5.	2021	<i>Fresenius Environmental Bulletin, Vol. 30, pp. 10728–10737, Issue 9</i>	<i>GIS Assessment for Groundwater Quality of District Multan, Pakistan</i> 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
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
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
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
9.	2025	Spectrum of Engineering Sciences, Vol. 3, pp. 13–29, Issue 8	Impact of Nano-Silica on the Mechanical Behavior of Geopolymer Concrete Muhammad Rashid Naveed, Umm e Habiba, Aqsa Nisar, Muhammad Yousaf Raza Taseer
10.	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
11.	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
12.	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
13.	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
14.	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
15.	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

16.	2025	<i>Mehran University Research Journal of Engineering and Technology</i> , Vol. 44, pp. 120–131, Issue 3	<i>Predicting the Compressive Strength of Limestone Calcined Clay Cement (LC3) Mortars with POFA via Maturity Method</i> Muhammad Yousaf Raza Taseer , Ahmad Razin Zainal Abidin, Shafiq Ishak
17.	2025	<i>Spectrum of Engineering Sciences</i> , Vol. 3, pp. 446–452, Issue 6	<i>Experimental Investigation of the Effects of Pressure on the Mechanical, Thermal, and Microstructural Properties of Clay-Based Geopolymers</i> Saleemullah, Ameer Hamza, Asma Qayoom, Muhammad Yousaf Raza Taseer , Syed Muhammad Shakir Bukhari, Muhammad Naveed Khalil
18.	2025	<i>Dialogue Social Science Review (DSSR)</i> , Vol. 3, pp. 109–126, Issue 10	<i>From Aesthetics to Algorithms: A Critical Review of Landscape Architecture Principles in the Digital Era</i> Sumra Yousif, Muhammad Yousaf Raza Taseer , Nyla Mansha, Zulkifl Ahmed, Sunera Imtiaz
19.	2025	<i>Stochastic Environmental Research and Risk Assessment</i> , Vol. 39, pp. 1091–1108	<i>Effect of Different Likelihood Measures on Parameter Conditioning and Model Uncertainty</i> Faisal Baig, Mehmet Cuneyd Demirel, Muhammad Yousaf Raza Taseer , Assad Kassem, Mohsen Sherif
20.	2025	<i>Scholars Journal of Physics, Mathematics and Statistics</i> , Vol. 12, pp. 149–160, Issue 5	<i>Prediction of Strength Properties of Soft Soil Using Machine Learning Techniques</i> Muhammad Aqib, Usama Waseem, Muhammad Awais, Muhammad Talha, Hassan Muhammad, Muhammad Yousaf Raza Taseer , Nowroz Khan, Abid Jamil Afridi, Sher Ali
21	2026	<i>Annual Methodological Archive Research Review</i> Vol. 4, pp. 174–186, Issue 1	<i>A New Optimization-Based Intelligent Method For Evaluation Of Road Embankment Slope Stability</i> Hafiza Rafia Tahira, Sumra Yousuf, Nyla Mansha, Umbrin Shahid, Muhammad Yousaf Raza Taseer , Rabia Maqbool

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. Faisal Baig, PhD United Arab Emirates University
3.	Pakistan	Professor Mudassar Munir Khan, PhD (University of Auckland) Professor, Department of Civil Engineering, Bahauddin Zakaraya University, Multan, Punjab, Pakistan