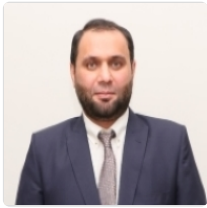


Usama Khalid

Assistant Professor
National Institute of Transportation

Email: usama.khalid@nit.nust.edu.pk
Contact:
LinkedIn: <https://www.linkedin.com/notifications/?filter=all>



About

Dr. Usama Khalid is working as Assistant Professor in the National Institute of Transportation. Dr. Usama Khalid has a PhD in Civil Engineering. Dr. Usama Khalid has published 38 research articles & conference papers having a citation count of 806, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Civil Engineering	2016 - 2020
Shanghai Jiaotong University , China	
MSc in Civil Engineering	2012 - 2014
UET Lahore , Pakistan	
BS in Civil Engineering	2011 - 2011
BZU, Multan , Pakistan	

Experience

Assistant Professor	2022- Present
National Institute of Transportation	
Assistant Professor	2021 - 2022
National Institute of Transportation	
Lecturer	2020 - 2021
COMSATS, Sahiwal Campus , COMSATS, Sahiwal Campus	
Lecturer	2015 - 2016
COMSATS, Sahiwal Campus , COMSATS, Sahiwal Campus	
Lecturer	2014 - 2015
Quaid-e-Azam College of Engineering and Technology , Quaid-e-Azam College of Engineering and Technology, Sahiwal	

Research Articles

Artificial intelligence-driven enhanced CBR modeling of sandy soils considering broad grain size variability	2025
Zia ur Rehman Zeeshan Aziz Usama Khalid Nauman Ijaz Sadaqat ur Rehman Zain Ijaz	
Journal of Rock Mechanics and Geotechnical Engineering, Volume: 17, Issue 5, Pages:3161-3179	
Impact Factor: 9.400 Quartile: 1 Citations: 6	
DOI: https://doi.org/10.1016/j.jrmge.2024.05.048	
Optimized machine learning-based enhanced modeling of pile bearing capacity in layered soils using random and grid search techniques	2025
Syed Jamal Arbi Zia ur Rehman Waqas Hassan Usama Khalid Nauman Ijaz Zain Maqsood Abbas Haider	
Earth Science Informatics , Volume:18, Issue:4, Article Number 332	
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Usama Khalid Zia ur Rehman Ashfaq Ahmad	
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Macroscopic and Microscopic Evaluation of the Effect of Mellowing Time on the Mechanical Properties of Expansive Clay Stabilized with Class F Fly Ash–Based Geopolymer <i>Khushal Khan Usama Khalid Zia ur Rehman Nauman Ijaz Muhammad Jawed Iqbal</i> <i>Journal of Materials in Civil Engineering</i> , Volume: 37, Issue: 4, Pages:21 Impact Factor: 3.1 Quartile: 2 Citations: 3 DOI: DOI: 10.1061/JMCEE7.MTENG-19133	2025
Reclaimed brick masonry waste recycling in macro–micro amelioration of cemented clayey soil: an eco-friendly construction waste solution <i>Ansar Ahmad Usama Khalid Zia ur Rehman Muhammad Jawed Iqbal</i> <i>Journal of Material Cycles and Waste Management</i> , Pages:22 Impact Factor: 2.7 Quartile: 3 DOI: https://doi.org/10.1007/s10163-025-02161-3	2025
Coupling effect of cyclic wet-dry environment and compaction state on desiccation cracking and mechanical behavior of low and high plastic clays <i>Usama Khalid Zia ur Rehman Kamran Shafqat</i> <i>Bulletin of Engineering Geology and the Environment</i> , Volume 84, Article Number 66 Impact Factor: 3.700 Quartile: 1 Citations: 1 DOI: https://doi.org/10.1007/s10064-024-04049-2	2025
Big data-driven global modeling of cohesive soil compaction across conceptual and arbitrary energies through machine learning <i>Zia ur Rehman Usama Khalid Nauman Ijaz Zain Ijaz</i> <i>Transportation Geotechnics</i> , Volume: 50, Article Number: 101470, Pages:23 Impact Factor: 4.9 Quartile: 1 Citations: 1 DOI: https://doi.org/10.1016/j.trgeo.2024.101470	2025
Efficacy of geopolymerization for integrated bagasse ash and quarry dust in comparison to fly ash as an admixture: A comparative study <i>Usama Khalid Zia ur Rehman Imad Ullah Khushal Khan Wasim Irshad Kayani</i> <i>Journal of Engineering Research</i> , Volume: 12, Issue: 3, Pages: 328-339 Impact Factor: 0.9 Quartile: 3 Citations: 14 DOI: https://doi.org/10.1016/j.jer.2023.08.010	2024
Environmental impacts and performance assessment of recycled fine aggregate concrete <i>Mudassar Munir Shah Usama Khalid Hassan Mujtaba Syeda Areej Zahra Naqvi Salman Masood</i> <i>Environmental Science and Pollution Research</i> , Pages:20 Impact Factor: 5.8 Quartile: 1 Citations: 5 DOI: 10.1007/s11356-024-33590-6	2024
Performance evaluation of cement-based composites containing phase change materials from energy management and construction standpoints <i>Muhammad Faisal Junaid Zia ur Rehman Nauman Ijaz Rashid Farooq Usama Khalid Zain Ijaz</i> <i>Construction and Building Materials</i> , Volume: 416, Article Number: 135108 Impact Factor: 7.4 Quartile: 1 Citations: 36 DOI: 10.1016/j.conbuildmat.2024.135108	2024
Impact of crushing shape and geopolymerization on reclaimed concrete aggregate for recycling in the flexible pavement: an enhanced circular economy solution <i>Omer Sattar Usama Khalid Zia ur Rehman Wasim Irshad Kayani Abbas Haider</i> <i>Road Materials and Pavement Design</i> , Pages 1-23 Impact Factor: 3.7 Quartile: 2 Citations: 6 DOI: 10.1080/14680629.2023.2287711	2023
Integrated recycling of geopolymerized quarry dust and bagasse ash with facemasks for the balanced amelioration of the fat clay: a multi-waste solution <i>Imad Ullah Usama Khalid Zia ur Rehman Mudassar Munir Shah Inam Ullah Khan Nauman Ijaz</i> <i>Environmental Earth Sciences</i> , Volume:82, Issue:21, Impact Factor: 2.8 Quartile: 2 Citations: 19 DOI: 10.1007/s12665-023-11219-0	2023
Integrating wheat straw and silica fume as a balanced mechanical ameliorator for expansive soil: a novel agri-industrial waste solution <i>Usama Khalid Zia ur Rehman Nauman Ijaz Inam Ullah Khan Muhammad Faisal Junaid</i>	2023

Impact Factor: 5.8 | **Quartile:** 1 | **Citations:** 17

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2023

Muhammad Hamza Khalid Farooq Zia ur Rehman Hassan Mujtaba Usama Khalid

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2023

Mudassar Munir Shah Hassan Mujtaba Usama Khalid Khalid Farooq Zia ur Rehman

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Optimization of Sand-Bentonite Mixture for the Stable Engineered Barriers using Desirability

2023

Optimization Methodology: A Macro-Micro-Evaluation

Khalid Farooq Zia ur Rehman Muqada Shahzadi Hassan Mujtaba Usama Khalid

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DOI: [10.1007/s12205-022-2088-8](https://doi.org/10.1007/s12205-022-2088-8)

Machine learning-based intelligent modeling of hydraulic conductivity of sandy soils considering a wide range of grain sizes

2022

Zia ur Rehman Usama Khalid Nauman Ijaz Hassan Mujtaba Abbas Haider Khalid Farooq Zain Ijaz

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2022

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Usama Khalid Zia ur Rehman Hassan Mujtaba Khalid Farooq

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Numerical analysis on zone-divided deep excavation in soft clays using a new small strain elasto–plastic constitutive model

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Afnan Younis Tanoli Bin Yan Yong-lin Xiong Guan-lin Ye Usama Khalid Zhong-hua Xu

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Zia ur Rehman Usama Khalid

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Unified evaluation of consolidation parameters for low to high plastic range of cohesive soils from Pakistan <i>Zia ur Rehman Khalid Farooq Hassan Mujtaba Usama Khalid</i> <i>Mehran university Journal of Engineering & Technology</i> , Volume 40, No.1, Pages 93-103 Impact Factor: N/A DOI: 10.22581/muet1982.2101.09	2021
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Strength and dilatancy behavior of Shanghai deep sands: with focus on grain size and shape effect. <i>Bandana Tiwari Guan-lin Ye Ming-Guang Li Usama Khalid Santosh Kumar Yadav</i> <i>Journal of Rock Mechanics and Geotechnical Engineering</i> , Volume 12, Issue 6, Pages 1214-1225 Impact Factor: 4.338 Quartile: 1 Citations: 18 DOI: 10.1016/j.jrmge.2020.01.010	2020
Sustainable utilization of powdered glass to improve the mechanical behavior of fat clay <i>Hassan Mujtaba Usama Khalid Khalid Farooq Mehboob Elahi Zia Ur Rehman Hussain Mustafa Shahzad</i> <i>KSCE Journal of Civil Engineering</i> , Volume 24, Pages 3628-3639 Impact Factor: 1.805 Quartile: 3 Citations: 39 DOI: https://doi.org/10.1007/s12205-020-0159-2	2020
Unified numerical study of shallow foundation on structured soft clay under unconsolidated and consolidated-undrained loadings <i>Santosh Kumar Yadav Guan-lin Ye Yong-lin Xiong Usama Khalid</i> <i>Marine Georesources & Geotechnology</i> , Volume 38, Issue 4, Pages 400-416 Impact Factor: 2.673 Quartile: 2 Citations: 10 DOI: 10.1080/1064119X.2019.1576244	2020
Numerical and centrifugal physical modelling on soft clay improved with floating and fixed sand compaction piles <i>Santosh Kumar Yadav Guan-lin Ye Usama Khalid Mitsuharu Fukuda</i> <i>Computers and Geotechnics</i> , Volume 115, Article Number 103160 Impact Factor: 3.818 Quartile: 1 Citations: 17 DOI: 10.1016/j.compgeo.2019.103160	2019
Experimental Evaluation of Mohr Columb Strength Parameter with Grain Size of Granular Soils <i>Zia ur Rehman Usama Khalid Khalid Mehmood</i> <i>Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan</i> , Volume 24, No.03, Pages 8-14 Impact Factor: N/A DOI: https://tj.uettaxila.edu.pk/index.php/technical-journal/article/view/454	2019
A simple experimental method to regain the mechanical behavior of naturally structured marine clays <i>Usama Khalid Guan-lin Ye Santosh Kumar Yadav Zhen-Yu Yin</i> <i>Applied Ocean Research</i> , Volume 88, Pages 275-287 Impact Factor: 2.753 Quartile: 2 Citations: 15 DOI: 10.1016/j.apor.2019.04.012	2019
Compressibility of compacted clays mixed with a wide range of bentonite for engineered barriers <i>Usama Khalid Zia ur Rehman Chencong Liao Hassan Mujtaba Usama Khalid</i> <i>Arabian Journal for Science and Engineering</i> , Volume 44, Pages 5027-5042 Impact Factor: 1.711 Quartile: 3 Citations: 25 DOI: 10.1007/s13369-018-03693-7	2019
On yield stress of compacted clays	2018

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Sustainable improvement of soft marine clay using low cement content: a multi-scale experimental investigation 2018

Usama Khalid Chencong Liao Guan-lin Ye Santosh Kumar Yadav
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Evaluation of compaction parameters of fine-grained soils using standard and modified efforts 2018

Usama Khalid Zia ur Rehman
International Journal of Geo-Engineering , Volume 9, Article Number 15

Impact Factor: N/A | Citations: 36
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Prediction of CBR value from index properties of different soils 2017

Zia ur Rehman Usama Khalid Khalid Farooq Hassan Mujtaba
Technical Journal, University of Engineering and Technology (UET) Taxila, Pakistan,, Volume 22(2), Pages 17-26

Impact Factor: N/A
DOI: <https://tj.uettaxila.edu.pk/older-issues/2017/No2/3>
Prediction%20of%20CBR%20Value%20from%20Index%20Properties%20of%20different%20Soils.pdf

Prediction of compaction characteristics of fine-grained soils using consistency limits 2016

Khalid Farooq Usama Khalid Hassan Mujtaba
Arabian Journal for Science and Engineering, Volume 41, Pages1319-328

Impact Factor: 0.865 | Quartile: 3 | Citations: 57
DOI: 10.1007/s13369-015-1918-0

Editorial Activities

Journal of Rock Mechanics and Geotechnical Engineering 2025

Reviewed Papers for Journals
Impact Factor: 9.4

Environmental Geochemistry and Health 2025

Reviewed Papers for Journals
Impact Factor: 3.2

Geosciences 2025

Reviewed Papers for Journals
Impact Factor: 2.4

Soil and Tillage Research 2025

Reviewed Papers for Journals
Impact Factor: 6.1

Iranian Journal of Science and Technology, Transactions of Civil Engineering 2025

Reviewed Papers for Journals
Impact Factor: 1.7

Scientific Reports 2025

Reviewed Papers for Journals
Impact Factor: 3.8

Journal of Rock Mechanics and Geotechnical Engineering 2025

Reviewed Papers for Journals
Impact Factor: 9.4

Journal of Rock Mechanics and Geotechnical Engineering 2025

Reviewed Papers for Journals
Impact Factor: 9.4

Applied Sciences 2025

Reviewed Papers for Journals

Impact Factor: 2.83	
Journal of Rock Mechanics and Geotechnical Engineering Reviewed Papers for Journals Impact Factor: 9.4	2025
Journal of Rock Mechanics and Geotechnical Engineering Reviewed Papers for Journals Impact Factor: 9.4	2024
Acta Geotechnica Reviewed Papers for Journals Impact Factor: 5.6	2024
Journal of Marine Science and Engineering Reviewed Papers for Journals Impact Factor: 2.7	2024
Scientific Reports Reviewed Papers for Journals Impact Factor: 3.8	2024
International journal of sustainable engineering Reviewed Papers for Journals Impact Factor: 3.6	2024
Journal of Marine Science and Engineering Reviewed Papers for Journals Impact Factor: 2.7	2024
Journal of Rock Mechanics and Geotechnical Engineering Reviewed Papers for Journals Impact Factor: 7.3	2024
Scientific Reports Reviewed Papers for Journals Impact Factor: 4.6	2024
Environmental Earth Sciences Reviewed Papers for Journals Impact Factor: 2.8	2024
Applied Sciences Reviewed Papers for Journals Impact Factor: 2.7	2024
Heliyon Reviewed Papers for Journals Impact Factor: 3.4	2024
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Materials Reviewed Papers for Journals Impact Factor: 3.4	2024
Journal of Natural Fibers Reviewed Papers for Journals Impact Factor: 2.8	2024
Applied Sciences Reviewed Papers for Journals Impact Factor: 2.83	2024
Scientific Reports Reviewed Papers for Journals Impact Factor: 4.6	2024
Heliyon	2024

Reviewed Papers for Journals	
Impact Factor: 4	
Journal of Rock Mechanics and Geotechnical Engineering	2024
Reviewed Papers for Journals	
Impact Factor: 7.3	
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Reviewed Papers for Journals	
Impact Factor: 5.8	
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Impact Factor: 1.3	
Applied Sciences	2023
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Impact Factor: 2.7	
Coatings	2023
Reviewed Papers for Journals	
Impact Factor: 3.4	
Applied Sciences	2023
Reviewed Papers for Journals	
Impact Factor: 2.7	
Buildings	2023
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Sustainability	2023
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Impact Factor: 3.9	
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Journal of Rock Mechanics and Geotechnical Engineering	2023
Reviewed Papers for Journals	
Impact Factor: 7.3	
Geomechanics and Geoengineering	2023
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Impact Factor: 1.3	
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Impact Factor: 2.7	
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Impact Factor: N/A	
Buildings	2023
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Impact Factor: 3.8	

Applied Sciences	2022
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Impact Factor: 2.7	
Sustainability	2022
Reviewed Papers for Journals	
Impact Factor: 3.9	
Reviewed Papers for Journals	2022
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Sustainability	2022
Reviewed Papers for Journals	
Impact Factor: 3.5	
Sustainability	2022
Reviewed Papers for Journals	
Impact Factor: 2.7	