Zain Maqsood

Assistant Professor

NUST Institute of Civil Engineering

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About

Dr. Zain Maqsood is working as Assistant Professor in the NUST Institute of Civil Engineering. Dr. Zain Maqsood has a PhD in Geotechnical. Dr. Zain Maqsood has published 25 research articles & conference papers having a citation count of 286, carried out 27 projects and filed 0 intellectual property.

Qualifications

PhD in Geotechnical The University of Tokyo , Japan	2016 - 2019
MS in Geotechnical The University of Tokyo , Japan	2014 - 2016
BE in Civil Engineering NUST, Islamabad , Pakistan	2008 - 2012
Experience	

Assistant Professor	2022- Present
NUST Institute of Civil Engineering	
Assistant Professor	2021 - 2022
NUST Institute of Civil Engineering	
Project Researcher	2019 - 2020
The University of Tokyo , Tokyo, Islamabad	
Junior Engineer	2013 - 2014
NESPAK , Lahore	
Junior Engineer	2012 - 2013
NESPAK Foundation , Lahore, Pakistan	

Research Projects

National Projects

Time-Dependent Mechanical Behavior of Nev	Type of Light Weight Cemented Granular Geomaterials
(CGG)	

Funding Agency: HEC Amount: PKR 11,580,000.00 Status: Approved_inprocess

Effect of Creep, temperature and loading cycling of soil geomembrane interface shear strength

Funding Agency: HEC Amount: PKR 15,765,000.00 Status: Approved_inprocess

International Projects

Industry Projects

National Projects

Implement a shallow seismic survey at Balakot Project, Mansehra District, Khyber Pakhtunkhwa

Client: BK Consultants (PVT) Lt Amount: PKR 90,000.00 Status: Completed

2024

2022

2022

Geotechnical Consultancy Project for "Geotechnical Investigations for HEC Secretariat Building at HEC H-8 Premises, Islamabad" Client: NESPAK Amount: PKR 764,900.00 Status: Completed	2024
Geotechnical Consultancy Project for "Preliminary Geotechnical Investigation for NCLS College at NUST H-12, Islamabad" Client: Project Management Office (PMO) NUST, Pakistan Amount: PKR 808,000.00 Status: Completed	2024
Geotechnical Consultancy for Construction of Box Culverts at C-14, Islamabad Client: Capital Development Authority (CDA), Pakistan Amount: PKR 1,948,000.00 Status: Completed	2024
Geotechnical Consultancy Project for "Field Density Tests at German Embassy, Islamabad. Client: DVK Construction Pvt Ltd Amount: PKR 208,500.00 Status: Completed	2023
Geotechnical Consultancy for Design of Foundation for Upgradation of NCRD Complex, Phase-III, at Chak Shahzad, Islamabad Client: Pakistan Public Works Department (PWD) Amount: PKR 646,000.00 Status: Completed	2024
Geotechnical Consultancy Project for "Geotechnical Investigation for Newly Proposed 132 KV Grid Station at Cabinet Division Employees Cooperative Housing Society, Islamabad" Client: Islamabad Electric Supply Company (IESCO), Pakistan Amount: PKR 688,010.00 Status: Completed	2023
Geotechnical Consultancy Project for "Geotechnical Investigation for Construction of BOQs (Male) (Adjacent to Under Construction Male BOQ building)" Client: Project Management Office (PMO) NUST, Pakistan Amount: PKR 411,200.00 Status: Completed	2023
Geotechnical Consultancy for Construction of 132 KV Grid Station at Shakrial, Rawalpindi Client: Islamabad Electric Supply Company (IESCO), Pakistan Amount: PKR 648,000.00 Status: Completed	2023
Geotechnical Consultancy for Design of Foundation for Transmission Tower at 132 KV, CHAKSAWARI, MIRPUR Client: Islamabad Electric Supply Company (IESCO), Pakistan Amount: PKR 800,000.00 Status: Completed	2023
Geotechnical Consultancy for Construction of 132 KV Grid Station at EMAAR Housing Society, Islamabad Client: Islamabad Electric Supply Company (IESCO), Pakistan Amount: PKR 851,000.00 Status: Completed	2023
Geotechnical Consultancy Project for "Soil Investigation for Newly Proposed 132 kV Grid Station Khanpur Under 7th STG Client: Islamabad Electric Supply Company (IESCO), Pakistan Amount: PKR 891,000.00 Status: Completed	2022
Geotechnical Investigation for Construction of PCC Drain/Nullah Along Sr (West) & (South) Sector D- 12/1-2, Islamabad Client: Capital Development Authority (CDA), Pakistan Amount: PKR 324,000.00 Status: Completed	2022

Geotechnical Consultancy Project for "Field Density Tests at German Embassy, Islamabad" Client: DVK Construction Pvt Ltd. Amount: PKR 138,500.00 Status: Completed	2022
Geotechnical investigation for determination of Bearing capacity of soil bridges at service road (north) sector h-10 and service road (south), Sector h-10, islamabad Client: Capital Development Authority (CDA), Pakistan Amount: PKR 1,000,000.00 Status: Completed	2022
Geotechnical Consultancy for Construction of 132 KV Grid Station at Rewat Industrial Area - Rawat Client: IESCO Islamabad Amount: PKR N/A Status: Completed	2022
Soil Investigation for Construction of 2 × NG-Staff Apartments at NUST H-12 Sector, Islamabad Client: Project Management Office (PMO) NUST, Pakistan Amount: PKR 887,000.00 Status: Completed	2022
Soil Investigation for Construction of Boys Hostel at NUST H-12 Sector, Islamabad Client: Project Management Office (PMO) NUST, Pakistan Amount: PKR 1,130,000.00 Status: Completed	2022
Soil Investigation for Construction of Girls Hostel at NUST H-12 Sector, Islamabad Client: Project Management Office (PMO) NUST, Pakistan Amount: PKR 1,110,000.00 Status: Completed	2022
Geotechnical Consultancy Project for "Soil Investigation of Construction of Access Road from Kuri Road Leading to the Plots Allotted to Special Technology Zone (STZ) Chak Shahzad, Islamabad Client: Capital Development Authority (CDA), Pakistan Amount: PKR 646,400.00 Status: Completed	2021
Soil Investigation of CONSTRUCTION OF CELL BOX CULVERTS IN SECTOR C-15, ISLAMABAD Client: Capital Development Authority (CDA), Pakistan Amount: PKR 805,000.00 Status: Completed	2021
Geotechnical Consultancy for Construction of Panahgah's for Pakistan Baitul Maal at Tarlali Kalan and Tarnol Islamabad Client: Pakistan Public Works Department (Pak PWD) Amount: PKR 911,600.00 Status: Completed	2021
Geotechnical Consultancy for Construction of Cell Box Culverts at Sector I-12, Islamabad Client: Sector Development Division-I of Capital Development Authority (CDA) Islamabad Amount: PKR 991,500.00 Status: Completed	2021
Geotechnical Consultancy for Construction of National Academy of Public Accounts and Finance, Islamabad Client: Development Consultancy Services (Pvt.) Ltd Amount: PKR 522,750.00 Status: Completed	2021
Geotechnical Consultancy for "Soil Investigation of Newly Proposed 132 KV Grid Station DHA Phase- 1V, Rawalpindi" Client: Islamabad Electric Supply Company (IESCO, Pakistan Amount: PKR 835,600.00 Status: Completed	2021
International Projects	
Research Articles	

mechanical and compaction behaviour

Muhammad Haseeb Zain Maqsood Muhammad Baqir Sofia Sarwar Badee Abdulqawi Hamood Al-Shameri Waqas Hassan Abbas Haider Lin Wenli Mehtab

Alam Jiren Xie Liu Ang Muhammad Umar

Transportation Geotechnics, Volume:54, ID:101614

Impact Factor: 5.5 | Quartile: 1

DOI: https://doi.org/10.1016/j.trgeo.2025.101614

Data-Driven Approach to Enhance Deep Foundation Safety: Reliable Methods for Predicting Bored Pile Capacity

2025

Usman Hasan Jalali Badee Abdulqawi Hamood Al-Shameri Muhammad Hamza Khalid Waqas Hassan Lokmane Abdeldjouad Syed Muhammad Jamil Syed

Hassan Farooq Zain Maqsood

International Journal of Geo-Engineering, Volume 16, Article Number 16

Impact Factor: 7.100 | Quartile: 1

DOI: https://doi.org/10.1186/s40703-025-00247-3

Application of multiple machine learning algorithms for intelligent prediction of the strength of fine-grained natural soils

2025

fine-grained natural soils

Muhammad Shahroz Khalid Zia ur Rehman Badee Abdulqawi Hamood Al-Shameri Zain Maqsood Fazal Hussain Muhammad Irslan Khalid Syed Jamal Arbi Abbas Haider

Arabian Journal of Geosciences, Volume 18, Article Number 115

Impact Factor: N/A

DOI: https://doi.org/10.1007/s12517-025-12236-y

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 Impact Factor: 3.000 | Quartile: 2 | Citations: 3

DOI: https://doi.org/10.1007/s12145-025-01784-2

Predictive Modeling of Atterberg's Limits of Soil passing through Sieve #40 and #200 using Artificial

2024

Neural Networks and Multivariate Regression: Advancing Sustainable Construction Practices

Sana Ullah Qamar Badee Alshameri Waqas Hassan Zain Maqsood Abbas Haider Multiscale and Multidisciplinary Modeling, Experiments and Design, Pages 1-19

Impact Factor: 1.900 | Quartile: 2 | Citations: 3 DOI: https://doi.org/10.1007/s41939-024-00560-x

Macro-micro mechanical behavior of saturated cemented sands during drained triaxial shearing

2024

Wenli Lin Ang Liu Erkang Zhang Shuyu Tian Deqi He Zain Maqsood Construction and Building Materials, Volume 434, Article Number 136787

Impact Factor: 7.400 | Quartile: 1 | Citations: 1

DOI: https://doi.org/10.1016/j.conbuildmat.2024.136787

Predictive Modelling of Cohesion and Friction Angle of Soil using Gene Expression Programming: A

2024

Step Towards Smart and Sustainable Construction

Muhammad Naqeeb Nawaz Badee Alshameri Zain Maqsood Waqas Hassan

Neural Computing and Applications, Pages 1-22 Impact Factor: 6.000 | Quartile: 2 | Citations: 18 DOI: https://doi.org/10.1007/s00521-024-09626-w

An innovative application of fine marble dust for the construction industry to mitigate the piping, internal erosion and dispersion problems of sodium-rich clays

2023

Waqas Hassan Badee Alshameri Zain Maqsood Abbas Haider Syed Muhammad Jamil Hassan Mujtaba

Construction and Building materials, Volume 408, Article Number 133834

Impact Factor: 7.4 | Quartile: 1 | Citations: 16

DOI: https://doi.org/10.1016/j.conbuildmat.2023.133834

A novel technique for the construction industry to mitigate dispersibility and internal erosion problems of Sodium rich clays by using Water-Soluble Potassium Rich Ions Material

2023

Waqas Hassan Badee Abdulqawi Hamood Al-Shameri Abbas Haider Zain Maqsood Syed Muhammad Jamil Arfan Shahzad

Construction and Building Materials, Volume 400, Article Number 132780

Impact Factor: 7.4 | Quartile: 1 | Citations: 16

DOI: https://doi.org/10.1016/j.conbuildmat.2023.132780

Incorporating potassium-rich waste material in a sustainable way to stabilize dispersive clay: A novel practical approach for the construction industry	2023
Waqas Hassan Badee Abdulqawi Hamood Al-Shameri Syed Muhammad Jamil Zain Maqsood Abbas Haider Arfan Shahzad Construction and Building Materials, Volume 400, Article Number 132717	
Impact Factor: 7.4 Quartile: 1 Citations: 26	
DOI: https://doi.org/10.1016/j.conbuildmat.2023.132717	
PET Waste Management in Pakistan Through use of PET Shreds as Additive in Backfill Soil	2023
Fawad Sheikh Badee Alshameri Zain Maqsood Abbas Haider Jawad Hassan	
Environmental Monitoring and Assessment, Volume 195, Article Number 1239	
Impact Factor: 3.0 Quartile: 3 Citations: 2 DOI: https://doi.org/10.1007/s10661-023-11832-3	
Sustainable incorporation of Plaster of Paris kiln dust for stabilization of dispersive soil: A potential	2023
solution for construction industry	
Bushra Fatima Badee Abdulqawi Hamood Al-Shameri Waqas Hassan Zain Maqsood S. Muhammad Jamil Aziman Madun	
Construction and Building Materials, Volume 397, Article Number 132459	
Impact Factor: 7.4 Quartile: 1 Citations: 29 DOI: https://doi.org/10.1016/j.conbuildmat.2023.132459	
Mechanical Behaviour and Stress-Strain Recovery Characteristics of Expanded Polypropylene	2022
Zain Maqsood Junichi Koseki Hiroyuki Kyokawa	
Geosynthetics International, Volume 31 Issue 1, Pages: 18-30	
Impact Factor: 4.5 Quartile: 1 Citations: 2	
DOI: https://doi.org/10.1680/jgein.21.00061	
Swelling and strength characteristics of sand treated with paper sludge ash-based stabilizer	2022
Maliki Otieboame Djandjieme Kimitoshi Hayano Hiromoto Yamauchi Zain Maqsood	
Construction and Building Materials, Volume 341, Article Number 127849	
Impact Factor: 7.693 Quartile: 1 Citations: 24 DOI: https://doi.org/10.1016/j.conbuildmat.2022.127849	
Verification of 3D AE Source Location Technique in Triaxial Compression Tests Using Pencil Lead	2022
Break Sources on a Cylindrical Metal Specimen	
Xianfeng Li Ali Naqi Zain Maqsood Junichi Koseki	
Applied Sciences, Volume 12, Issue 3, Article Number 1603	
Impact Factor: 2.9 Quartile: 2 Citations: 4 DOI: https://doi.org/10.3390/app12031603	
Micromechanical Behavior of Granular Soils Characterized by Acoustic Emission	2021
Wenli Lin Ang Liu Wuwei Mao Zain Maqsood Junichi Koseki	
Lithosphere, Volume 2021, Article ID 4061808, 14 pages	
Impact Factor: 3.375 Quartile: 1	
DOI: https://doi.org/10.2113/2021/4061808	
Mechanical behaviour and loading rate dependency of gypsum-mixed fine-grained soils	2021
Masum Shaikh Hiroyuki Kyokawa Zain Maqsood Md. Kamrul Ahsan Junichi Koseki	
Proceedings of the Institution of Civil Engineers - Geotechnical Engineering, Pages 1-12	
Impact Factor: 1.341 Quartile: 4 Citations: 8 DOI: https://doi.org/10.1680/jgeen.21.00057	
Experimental Study on the Relationship between the Velocity of Surface Movements and Tilting Rate in	2021
Pre-Failure Stage of Rainfall-Induced Landslides	
Jiren Xie Taro Uchimura Chao Huang Zain Maqsood Jingli Tian	
Sensors , Volume 21(18), Article Number 5988	
Impact Factor: 3.576 Quartile: 1 Citations: 3 DOI: https://doi.org/10.3390/s21185988	
Experimental study on hardening characteristics and loading rate dependent mechanical behaviour of	2020
gypsum mixed sand	
Zain Maqsood Junichi Koseki Md. Kamrul Ahsan Masum Shaikh Hiroyuki Kyokawa	
Construction and Building Materials, Volume 262, Article Number 119992	
Impact Factor: 6.141 Quartile: 1 Citations: 23 DOI: https://doi.org/10.1016/j.conbuildmat.2020.119992	

Experimental study on the mechanical behaviour of bounded geomaterials under creep and cyclic 2020 loading considering effects of instantaneous strain rates Zain Maqsood Junichi Koseki Yukika Miyashita Jiren Xie Hiroyuki Kyokawa Engineering Geology, Volume 276, Article Number 105774 Impact Factor: 6.755 | Quartile: 1 | Citations: 33 DOI: https://doi.org/10.1016/j.enggeo.2020.105774 2020 Influence of salinity exposure on the mechanical properties of cement-treated sand Md. Kamrul Ahsan Masum Shaikh Dipankar Chandra Barman Zain Magsood Geotechnical Research, Volume 7, Issue 3, Pages 161-172 Impact Factor: N/A | Citations: 3 DOI: https://doi.org/10.1680/jgere.20.00013 Predicting the sliding behavior of rotational landslides based on the tilting measurement of the slope 2020 surface Jiren Xie Taro Uchimura Gonghui Wang Hemakanth Selvarajah Zain Maqsood Quan Shen Guoxiong Mei Shifan Qiao Engineering Geology, Volume 269, Article Number 105554 Impact Factor: 6.755 | Quartile: 1 | Citations: 40 DOI: https://doi.org/10.1016/j.enggeo.2020.105554 A new prediction method for the occurrence of landslides based on the time history of tilting of the 2020 slope surface Jiren Xie Taro Uchimura Gonghui Wang Quan Shen Zain Maqsood Canrong Xie Jiapeng Liu Weikai Lei Shangning Tao Pan Chen Hongyuan Dong Guoxiong Mei Shifan Qiao Landsldies, Volume 17, Pages 301-312 Impact Factor: 6.578 | Quartile: 1 | Citations: 32 DOI: https://doi.org/10.1007/s10346-019-01283-8 **Conference Proceedings** Characterization of weathering cycle for laboratory reproduced accelerated weathering of soft 2022 indigenous rocks Haseeb Yaqoob Maryem Naeem Muhammad Junaid Riaz Naveed Ahmad Zain Magsood 2nd International Conference on Recent Advances in Civil Engineering and Disaster Management, res.country(177,) Citations: N/A DOI: Nil 2021 Strength evaluation of Cement-Treated Sand-Expanded Polystyrene Bead Lightweight Fill Khola Iqbal Hammad Siddique Waleed Iqbal Taro Uchimura Zain Maqsood 11th International Conference on Geotechnique, Construction Materials & Environment, GEOMATE 2021, res.country(113,) Citations: N/A DOI: Non **Editorial Activities** 2024 **Applied Sciences** Reviewed Papers for Journals Impact Factor: 2.5 Scientific Reports 2024 Reviewed Papers for Journals Impact Factor: 3.8 [Processes 2024 Reviewed Papers for Journals Impact Factor: 2.8 2024 **Applied Sciences** Reviewed Papers for Journals Impact Factor: 2.5 **Buildings** 2024 Reviewed Papers for Journals Impact Factor: 3.1

Applied Sciences	2023
Reviewed Papers for Journals Impact Factor: 2.5	
Applied Sciences Reviewed Papers for Journals Impact Factor: 2.5	2023
Symmetry Reviewed Papers for Journals Impact Factor: 2.7	2023
Applied Sciences Reviewed Papers for Journals Impact Factor: 2.7	2023
Sustainability Reviewed Papers for Journals Impact Factor: 3.9	2023
Energies Reviewed Papers for Journals Impact Factor: 3.2	2023
Journal of Marine Science and Engineering Reviewed Papers for Journals Impact Factor: 2.9	2022
Applied Sciences Reviewed Papers for Journals Impact Factor: 2.5	2022
Scientific Reports Reviewed Papers for Journals Impact Factor: 4.996	2022
Frontiers in Earth Science Editorial Office Reviewed Papers for Journals Impact Factor: 3.661	2022
Engineering Geology Reviewed Papers for Journals Impact Factor: 6.902	2022
Reviewed Papers for Journals Impact Factor: 0	2021
Reviewed Papers for Journals Impact Factor: 1.827	2021