

Muhammad Imran khan

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About

Dr. Muhammad Imran khan is working as Assistant Professor in the Military College of Engineering. Dr. Muhammad Imran khan has a PhD in Transportation Engineering. Dr. Muhammad Imran khan has published 36 research articles & conference papers having a citation count of 1070, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Transportation Engineering	2018 - 2022
Universiti Teknologi Petronas , Malaysia	
MS in Transportation Engineering	2008 - 2012
UET Taxila , Pakistan	
BS in Civil Engineering	2003 - 2007
UET Peshawar , Pakistan	

Experience

Assistant Professor	2024- Present
Military College of Engineering	
Assistant Professor	2022 - 2022
Military College of Engineering	
Assistant Prof	2017 - 2018
City University of Science & Information Technology , Peshawar	
Lecturer	2012 - 2017
King Faisal University, Saudi Arabia , Al-Ahsa, Saudi Arabia	
Lecturer	2010 - 2012
UET Peshawar, Bannu Campus , Bannu	
Lecturer	2008 - 2010
CECOS University , Peshawar	

Research Articles

Exploring waste marble dust as an additive in cementitious grouts for semi-flexible pavement applications: Analysis and optimization using RSM	2024
Muhammad Nouman Khan Muhammad Imran Khan Jalal Habib Khan Sarfraz Ahmed Rai Waqas Azfar Khan	
Construction and Building materials , Volume 411, Article Number 134554	
Impact Factor: 7.4 Quartile: 1 Citations: 18	
DOI: https://doi.org/10.1016/j.conbuildmat.2023.134554	
Prediction of compressive strength of cementitious grouts for semi-flexible pavement application using machine learning approach	2023
Muhammad Imran Khan Nasir Khan Syed Roshan Zamir Hashmi Muhamad Razuhanafi Mat Yazid Nur Izzi Md Yusoff Rai Waqas Azfar Khan Mujahid Ali	
Roman Fediuk	
Case Studies in Construction Materials , Volume 19, Article Number e02370	
Impact Factor: 6.2 Quartile: 2 Citations: 12	
DOI: https://doi.org/10.1016/j.cscm.2023.e02370	
Optimization of colloidal nano-silica based cementitious mortar composites using RSM and ANN approaches	2023
Kaffayatullah Khan Megat Azmi Megat Johari Muhammad Nasir Amin Muhammad Imran Khan Mudassir Iqbal	

Results in Engineering , Volume 20, Article Number 101390

Impact Factor: 6.000 | **Quartile:** 1 | **Citations:** 32

DOI: <https://doi.org/10.1016/j.rineng.2023.101390>

Rheological modeling and microstructural evaluation of oily sludge modified bitumen

2023

Abdul Muhaimin Memon Muslich Hartadi Sutanto Nur Izzi Md Yusoff Rizwan Ali Memon Muhammad Imran Khan Abdalnaser M.Al-Sabaei

Case Studies in Construction Materials , Volume 18, Article Number e02039

Impact Factor: 4.934 | **Quartile:** 1 | **Citations:** 12

DOI: <https://doi.org/10.1016/j.cscm.2023.e02039>

Effects of Rebar Size and Volume Fraction of Glass Fibers on Tensile Strength Retention of GFRP

2023

Rebars in Alkaline Environment via RSM and SHAP Analyses

Mudassir Iqbal Daxu Zhang Muhammad Imran Khan Muhammad Zahid Fazal E. Jalal

Journal of Materials in Civil Engineering , Volume 35, Issue 9

Impact Factor: 3.2 | **Quartile:** 2

DOI: [10.1061/JMCEE7.MTENG-1558](https://doi.org/10.1061/JMCEE7.MTENG-1558)

Fatigue Prediction Model and Stiffness Modulus for Semi-Flexible Pavement Surfacing Using Irradiated

2022

Waste Polyethylene Terephthalate-Based Cement Grouts

Muhammad Imran Khan Muslich Hartadi Sutanto Shabir Hussain Khahro Salah E. Zoorob Nur Izzi Md Yusoff Abdalnaser M.Al-Sabaei Yasir Javed

Coatings , Volume:13, Issue:1, Article Number:76

Impact Factor: 3.236 | **Quartile:** 2 | **Citations:** 13

DOI: [10.3390/coatings13010076](https://doi.org/10.3390/coatings13010076)

Central composite design application in the optimization of the effect of waste foundry sand on concrete properties using RSM

2022

Mujahid Ali Muhammad Imran Khan Faisal Massod Badr T.Alsulami Belgacem Bouallegue Roman Fediuk

Structures , Structures

Impact Factor: 4.010 | **Quartile:** 2

DOI: [10.1016/j.istruc.2022.11.0131](https://doi.org/10.1016/j.istruc.2022.11.0131)

Prediction of Strength Properties of Concrete Containing Waste Marble Aggregate and Stone Dust—

2022

Modeling and Optimization Using RSM

Syed Roshan Zamir Hashmi Muhammad Imran Khan Muhammad Shahid Siddique Shabir Hussain Khahro Osama Zaid Nur Izzi Md Yusoff

Materials , Volume 15(22), Article Number 8024

Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 26

DOI: <https://doi.org/10.3390/ma15228024>

Cementitious Grouts for Semi-Flexible Pavement Surfaces—A Review

2022

Muhammad Imran Khan Muslich Hartadi Sutanto Nur Izzi Md Yusoff Salah E. Zoorob Waqas Rafiq Mujahid Ali Roman Fediuk Nikolai Ivanovich Vatin

Materials , Volume:15, Issue:15, Article Number:5466

Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 28

DOI: <https://doi.org/10.3390/ma15155466>

Irradiated polyethylene terephthalate and fly ash based grouts for semi-flexible pavement: design and optimisation using response surface methodology

2022

Muhammad Imran Khan Muslich Hartadi Sutanto Madzlan Bin Napih Salah E. Zoorob Nur Izzi Md Yusoff Aliyu Usman Abdul Muhaimin Memon

International Journal of Pavement Engineering , Volume 23, Issue 8, Pages 2515-2530

Impact Factor: 4.178 | **Quartile:** 1 | **Citations:** 28

DOI: <https://doi.org/10.1080/10298436.2020.1861446>

Predictive Modeling of Compression Strength of Waste PET/SCM Blended Cementitious Grout Using Gene Expression Programming

2022

Muhammad Imran Khan Fazal E. Jalal Mudassir Iqbal Kaffayatullah Khan Muhammad Nasir Amin Majdi Adel Al-Faiad

Materials , Volume 15, Issue 9, Article Number 3077

Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 14

DOI: <https://doi.org/10.3390/ma15093077>

Effective use of recycled waste PET in cementitious grouts for developing sustainable semi-flexible pavement surfacing using artificial neural network (ANN)

2022

Muhammad Imran Khan Muslich Hartadi Sutanto Kaffayatullah Khan Mudassir Iqbal Madzlan Bin Napih Salah E. Zoorob Fifi Jaromir Klemes Awais Bokhari Waqas Rafiq

Journal of Cleaner Production , Volume 340, Article Number 130840

Impact Factor: 11.1 | **Quartile:** 1 | **Citations:** 68

DOI: <https://doi.org/10.1016/j.jclepro.2022.130840>

- Perspective of Life-Cycle Cost Analysis and Risk Assessment for Airport Pavement in Delaying Preventive Maintenance** 2022
Muhammad Imran Khan Peyman Babashamsi Shabir Hussain Khahro Hend Ali Omar Abdalnaser M.Al-Sabaei Abdul Muhaimin Memon Abdalrhman Milad Muslich Hartadi Sutanto
Sustainability , Volume 14(5), Article Number 2905
Impact Factor: 3.889 | **Quartile:** 2 | **Citations:** 19
DOI: <https://doi.org/10.3390/su14052905>
- Experimental and analytical investigation on the confinement behavior of low strength concrete under axial compression** 2022
Muhammad Imran Khan Mujahid Ali Sheraz Abbas Afonso Rangel Garcez Markssuel Teixeira Marvila Waqas Rafiq
Structures , Volume 36, Pages 303-313
Impact Factor: 4.010 | **Quartile:** 2 | **Citations:** 18
DOI: <https://doi.org/10.1016/j.istruc.2021.12.038>
- Effect of the addition and processing of glass polishing waste on the durability of geopolymeric mortars** 2021
Afonso Rangel Garcez Markssuel T. Marvila Mujahid Ali Muhammad Imran Khan Faisal Massod Carlos Mauricio F. Vieira
Case Studies in Construction Materials, Volume 15, Article Number e00662
Impact Factor: 4.934 | **Quartile:** 1 | **Citations:** 83
DOI: <https://doi.org/10.1016/j.cscm.2021.e00662>
- Investigating the mechanical properties and fuel spillage resistance of semi-flexible pavement surfacing containing irradiated waste PET based grouts** 2021
Muhammad Imran Khan Muslich Hartadi Sutanto Madzlan Bin Napiah Salah E. Zoorob Abdalnaser M.Al-Sabaei Waqas Rafiq Mujahid Ali Abdul Muhaimin Memon
Construction and Building Materials , Volume 304, Article Number 124641
Impact Factor: 7.693 | **Quartile:** 1 | **Citations:** 49
DOI: <https://doi.org/10.1016/j.conbuildmat.2021.124641>
- Determining the effect of ageing of nano-clay modified bitumen using atomic force microscopy** 2021
H.A. Omar M. Mubarak N.H. Abdullah Abdalnaser M.Al-Sabaei Abdul Muhaimin Memon Muhammad Imran Khan Muslich Hartadi Sutanto Nur Izzi Md Yusoff
Scientia Iranica , Volume 28, Issue 5 A, Pages 2534-2545
Impact Factor: 1.416 | **Quartile:** 4 | **Citations:** 8
DOI: 10.24200/SCI.2021.56224.4610
- Physicochemical, rheological and microstructural properties of Nano-Silica modified Bio-Asphalt** 2021
Abdalnaser M.Al-Sabaei Madzlan Bin Napiah Muslich Hartadi Sutanto Wesam Alaloul Nur Izzi Md Yusoff Muhammad Imran Khan Saeed Modibbo Saeed
Construction and Building Materials , Volume 297, Article Number 123772
Impact Factor: 7.693 | **Quartile:** 1 | **Citations:** 50
DOI: <https://doi.org/10.1016/j.conbuildmat.2021.123772>
- Comparison of performance properties and prediction of regular and gamma-irradiated granular waste polyethylene terephthalate modified asphalt mixtures** 2021
Aliyu Usman Muslich Hartadi Sutanto Madzlan Bin Napiah Salah E. Zoorob Nura Shehu Aliyu Yaro Muhammad Imran Khan
Polymers , Volume 13, Issue 16, Article Number 2610
Impact Factor: 4.967 | **Quartile:** 1 | **Citations:** 36
DOI: <https://doi.org/10.3390/polym13162610>
- Modeling and design optimization of reclaimed asphalt pavement containing crude palm oil using response surface methodology** 2021
Waqas Rafiq Madzlan Bin Napiah Noor Zainab Habib Muslich Hartadi Sutanto Wesam Salah Alaloul Muhammad Imran Khan Muhammad Ali Musarat Abdul Muhaimin Memon
Construction and Building Materials , Volume 291, Article Number 123288
Impact Factor: 7.693 | **Quartile:** 1 | **Citations:** 59
DOI: <https://doi.org/10.1016/j.conbuildmat.2021.123288>
- The influence of covid-19-induced daily activities on health parameters—a case study in malaysia** 2021
Mujahid Ali Afonso Rangel Garcez Markssuel T. Marvila Muhammad Imran Khan Abdul Muhaimin Memon Faisal Massod Najib Mohammed Yahya Almahbashi Muhammad Kashif Shad Roman Fediuk Roman Timokhin Mudassir Ali Khan Aleksey Borovkov Ihtisham Ul Haq
Sustainability , Volume 13, Issue 13, Article Number 7465
Impact Factor: 3.889 | **Quartile:** 2 | **Citations:** 47
DOI: <https://doi.org/10.3390/su13137465>

Design optimization and statistical modeling of cementitious grout containing irradiated plastic waste and silica fume using response surface methodology <i>Muhammad Imran Khan Muslich Hartadi Sutanto Madzlan Bin Napiah Kaffayatullah Khan Waqas Rafiq</i> <i>Construction and Building Materials</i> , Volume 271, Article Number 121504 Impact Factor: 7.693 Quartile: 1 Citations: 65 DOI: https://doi.org/10.1016/j.conbuildmat.2020.121504	2021
A review of the evolution of technologies to use sulphur as a pavement construction material <i>Nazmus Sakib Amit Bhasin Md. Kamrul Islam Kaffayatullah Khan Muhammad Imran Khan</i> <i>International Journal of Pavement Engineering</i> , Volume 22, Issue 3, Pages 392-403 Impact Factor: 4.178 Quartile: 1 Citations: 32 DOI: https://doi.org/10.1080/10298436.2019.1612064	2021
Modeling and optimization of mixing conditions for petroleum sludge modified bitumen using response surface methodology <i>Abdul Muhaimin Memon Muslich Hartadi Sutanto Madzlan Bin Napiah Muhammad Imran Khan Waqas Rafiq</i> <i>Construction and Building Materials</i> , Volume 264, Article Number 120701 Impact Factor: 6.141 Quartile: 1 Citations: 52 DOI: https://doi.org/10.1016/j.conbuildmat.2020.120701	2020
Mechanical and deformation properties of rubberized engineered cementitious composite (ECC) <i>Wesam Alaloul Muhammad Ali Musarat Bassam A Tayeh Sarvesh Sivalingam Mohd Faridzuan Bin Rosli Sani Haruna Muhammad Imran Khan</i> <i>Case Studies in Construction Materials</i> , Volume 13, Article Number e00385 Impact Factor: 3.328 Quartile: 2 Citations: 94 DOI: https://doi.org/10.1016/j.cscm.2020.e00385	2020
Assessment of local earthen bricks in perspective of physical and mechanical properties using Geographical Information System in Peshawar, Pakistan <i>Muhammad Imran Khan Mujahid Ali Shah Room Faisal Massod Rizwan Ali Memon Razaullah Khan Abdul Muhaimin Memon</i> <i>Structures</i> , Volume 28, Pages 2549-2561 Impact Factor: 2.983 Quartile: 2 Citations: 33 DOI: https://doi.org/10.1016/j.istruc.2020.10.075	2020
Investigation on hamburg wheel-tracking device stripping performance properties of recycled hot-mix asphalt mixtures <i>Waqas Rafiq Madzlan Bin Napiah Muslich Hartadi Sutanto Wesam Alaloul Zarisha Nadia Binti Zabri Muhammad Imran Khan Muhammad Ali Musarat</i> <i>Materials</i> , Volume 13, Issue 21, Article Number 4704 Impact Factor: 3.623 Quartile: 1 Citations: 18 DOI: https://doi.org/10.3390/ma13214704	2020
Study on structural performance of asphalt concrete and hot rolled sheet through viscoelastic characterization <i>Senja Rum Harnaeni Florentina Pungky Pramesti Arif Budiarto Ary Setyawan Muhammad Imran Khan Muslich Hartadi Sutanto</i> <i>Materials</i> , Volume 13, Issue 5, Article Number 1133 Impact Factor: 3.623 Quartile: 1 Citations: 11 DOI: https://doi.org/10.3390/ma13051133	2020
Effect of irradiated and non-irradiated waste PET based cementitious grouts on flexural strength of semi-flexible pavement <i>Muhammad Imran Khan Huang Yong Huat Mohammad Haziq bin Muhamad Dun Muslich Hartadi Sutanto Ehsan Nikbakht Jarghouyeh Salah E. Zoorob</i> <i>Materials</i> , Volume 12, Issue 24, Article Number 4133 Impact Factor: 3.057 Quartile: 2 Citations: 26 DOI: https://doi.org/10.3390/ma12244133	2019
Effect of crumb rubber, epolene (EE-2), and date palm ash as modifiers on the performance of binders and mixtures: A sustainable approach <i>Muhammad Imran Khan Muslich Hartadi Sutanto Sri Sunarjono Shah Room Nur Izzi Md Yusoff</i> <i>Sustainability (Switzerland)</i> , Volume 11, Issue 22, Article Number 6484 Impact Factor: 3.889 Quartile: 2 Citations: 7 DOI: https://doi.org/10.3390/su11226484	2019
Transport culture akin to the China-Pakistan economic corridor <i>Liaqat Ali Jianing Mi Mussawar Shah Afedullah Khan Muhammad Imran Khan</i> <i>Human Systems Management</i> , Volume 36, Issue 4, Pages 381-396 Impact Factor: N/A Citations: 21	2017

DOI: 10.3233/HSM-17111

Performance evaluation of asphalt modified with municipalwastes for sustainable pavement construction <i>Muhammad Nasir Amin Muhammad Umair Saleem Muhammad Imran Khan</i> <i>Sustainability</i> , Volume 8, Issue 10, Article Number 949 Impact Factor: 3.889 Quartile: 2 Citations: 24 DOI: https://doi.org/10.3390/su8100949	2016
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Conference Proceedings

Investigating Mechanical Properties of Interlocking Concrete Blocks by Recycling Waste Polyethylene Terephthalate-A Sustainable Approach <i>Kok Kean Heng Muhammad Imran Khan Salah E. Zoorob Sri Sunarjono</i> <i>2021 Third International Sustainability and Resilience Conference: Climate Change</i> , res.country(23,) Citations: N/A DOI: 10.1109/IEEECONF53624.2021.9668134	2021
Simulating the Impact of Vehicle Speed on the Life of Bituminous Pavement <i>Muhammad Imran Khan Siti Yusrina Binti Zainal Abidin Muslich Hartadi Sutanto Fadhli Wong Mastura Bujang</i> <i>6th International Conference on Civil and Environmental Engineering for Sustainability, IConCEES 2021</i> , res.country(157,) Citations: N/A DOI: 10.1088/1755-1315/1022/1/012040	2021
Optimization of Cementitious Grouts for Semi-Flexible Pavement Surfaces Using Response Surface Methodology <i>Muhammad Imran Khan Muslich Hartadi Sutanto Madzlan Bin Napiah Muhammad Zahid Aliyu Usman</i> <i>5th International Conference on Civil and Environmental Engineering for Sustainability, IConCEES 2019</i> , res.country(157,) Citations: N/A DOI: 10.1088/1755-1315/498/1/012004	2019

Editorial Activities

Materials Edited Journal Issue / Proceeding / Book Impact Factor: 3.748	2022
Sensors Edited Journal Issue / Proceeding / Book Impact Factor: 3.576	2022