

Dr.Sarfraz Ahmed

Defence Faculty

Military College of Engineering

Email: sarfraz@mce.nust.edu.pk

Contact: 0923568740

LinkedIn:



About

Dr. Dr.Sarfraz Ahmed is working as Defence Faculty in the Military College of Engineering. Dr. Dr.Sarfraz Ahmed has a PhD in Transportation Engineering. Dr. Dr.Sarfraz Ahmed has published 43 research articles & conference papers having a citation count of 678, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Transportation Engineering University of Illinois at Urbana-Champaign , Pakistan	2008 - 2011
MS in Transportation Engineering American Business & Technology University , United States	2006 - 2008
BE in Civil Engineering NUST, Islamabad , Pakistan	1991 - 1994

Experience

Defence Faculty Military College of Engineering	2019- Present
CI/Dean Mil College of Engg , Mil College of Engg	2022 - 2022
Instructor A Military College of Engineering , Military College of Engineering	2019 - 2022
Proj Design Implementation Military College of Engineering , Military College of Engineering	2016 - 2019
Instructor A Mil College of Engg , Military College of Engineering	2012 - 2016
Instructor B Military College of Engineering , Military College of Engineering	2011 - 2012
PG Studies Abroad University of Illinois at Urbana- Champaign, USA , University of Illinois at Urbana- Champaign, USA	2006 - 2011
Company Commander Pakistan Army Engineers , Gujranwala & Muzafferabad	2004 - 2006
GSO-III (Int & Psy Ops) HQ 57 Bde , Bahawalnagar	2002 - 2004
Engrs Officer UNAMSIL (Sierra Leone) , UNAMSIL (Sierra Leone)	2001 - 2002
Field/ Combat Engr Field Formations , Field Formations	1994 - 2001
GC MCE/ PMA , MCE Risalpir	1991 - 1994

Awards

Research Articles

Effect of Nanoclay on the Performance Characteristics of SBS-Modified Asphalt Concrete Mixtures <i>Asmat Khan Dr.Sarfraz Ahmed Naqeeb Ullah Khattak Menglim Hoy Chamroeun Se</i> <i>Coatings</i> , Volume 15(9), Article Number 984 Impact Factor: 2.800 Quartile: 2 DOI: https://doi.org/10.3390/coatings15090984	2025
From Waste to Roads: Improving Pavement Performance and Achieving Sustainability with Recycled Steel Slag and Low-Density Polyethylene <i>Syed amir Mehmood Muhammad Imran Khan Dr.Sarfraz Ahmed Rania Al-Nawasir Rafiq M. Choudhry</i> <i>Buildings</i> , Volume:15, Issue:3, Article Number 476 Impact Factor: 3.100 Quartile: 2 DOI: https://doi.org/10.3390/buildings15030476	2025
Mechanism of Improvement and Best-fit Models for the Prediction of Geotechnical Properties of Lime Stabilized Expansive Soil Used in Pavement Subgrade <i>Muhammad Ali Naveed Sarfraz Ahmed Arshad Ullah Muhammad Danish Zia</i> <i>Mehran University Research Journal of Engineering and Technology</i> , Volume 43(2), Pages 65-78 Impact Factor: 0.600 Quartile: 3 DOI: https://doi.org/10.22581/muet1982.2977	2024
Complex fuzzy intelligent decision modeling for optimizing economic sustainability in transportation sector <i>Xiaoying Wang Muhammad Danish Zia Faisal Yousafzai Sarfraz Ahmed Muwen Wang</i> <i>Complex & Intelligent Systems</i> , Pages 1-19 Impact Factor: 5.800 Quartile: 2 Citations: 2 DOI: https://doi.org/10.1007/s40747-024-01372-9	2024
Exploring waste marble dust as an additive in cementitious grouts for semi-flexible pavement applications: Analysis and optimization using RSM <i>Muhammad Nouman Khan Muhammad Imran Khan Jalal Habib Khan Sarfraz Ahmed Rai Waqas Azfar Khan</i> <i>Construction and Building materials</i> , Volume 411, Article Number 134554 Impact Factor: 7.4 Quartile: 1 Citations: 18 DOI: https://doi.org/10.1016/j.conbuildmat.2023.134554	2024
Experimental Analysis of Embankment on Soft Soil Improved with Bottom Ash Columns <i>Arshad Ullah Azman Kassim Sarfraz Ahmed Rafi Ullah Muhammad Junaid Muhammad Danish Zia</i> <i>Transportation Geotechnics</i> , Volume 37, Article Number 100881 Impact Factor: 4.938 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1016/j.trgeo.2022.100881	2022
Experimental investigation of nano materials applicability in Hot Mix Asphalt (HMA) <i>Sarfraz Ahmed Muhammad Irfan Awais Zahid</i> <i>Construction and Building Materials</i> , Volume 350, Article Number 128882 Impact Factor: 7.693 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1016/j.conbuildmat.2022.128882	2022
A fuzzy synthetic evaluation analysis of time overrun risk factors in highway projects of terrorism-affected countries: the case of Pakistan <i>Irfan Zafar Ibrahim Y. Wuni Geoffrey Q. P. Shen Irfan Zafar Ibrahim Y. Wuni Geoffrey Q. P. Shen Sarfraz Ahmed Tashfeen Yousaf</i> <i>International Journal of Construction Management</i> , online published Impact Factor: 0 Citations: 34 DOI: DOI:10.1080/15623599.2019.1647634	2019
Rutting and Fatigue Properties of Cellulose Fiber-Added Stone Mastic Asphalt Concrete Mixtures <i>Muhammad Irfan Yasir Ali Shahid Iqbal Hainian Wang Yasir Ali Sarfraz Ahmed Shahid Iqbal Hainian Wang</i> <i>Advances in Materials Science and Engineering</i> , Volume 2019, Article ID 5604197, 8 pages Impact Factor: 1.271 Quartile: 4 Citations: 28 DOI: https://doi.org/10.1155/2019/5604197	2019
Rutting Evaluation of Asphalt Mixtures Using Static, Dynamic, and Repeated Creep Load Tests <i>Muhammad Irfan Y. Ali Shahid Iqbal Sarfraz Ahmad I. Hafeez</i> <i>Arabian Journal for Science and Engineering</i> , Volume 43, Pages 5143–5155 Impact Factor: 1.518 Quartile: 3 Citations: 26 DOI: https://doi.org/10.1007/s13369-017-2982-4	2018

Modelling and characterising the fatigue behaviour of asphaltic concrete mixtures <i>Muhammad Aniq Gul Muhammad Irfan Sarfraz Ahmed Yasir Ali Shahab Khanzada</i> <i>Construction and Building Materials</i> , Volume 184, Pages 723-732 Impact Factor: 4.046 Quartile: 1 Citations: 12 DOI: DOI:10.1016/j.conbuildmat.2018.07.022	2018
Effect of binder grade on performance parameters of asphaltic concrete paving mixtures <i>Muhammad Irfan Yasir Ali Muhammad Junaid Sarfraz Ahmed</i> <i>International Journal of Pavement Research and Technology</i> , Volume 11, Issue 5, Pages 435-444 Impact Factor: 0 Citations: 17 DOI: https://doi.org/10.1016/j.ijprt.2017.11.006	2018
Performance Evaluation of Crumb Rubber Modified Asphalt Mixtures Based on Laboratory and Field Investigations <i>Sarfraz Ahmed Muhammad Irfan Yasir Ali Imran Hafeez</i> <i>Arabian Journal for Science and Engineering</i> , Volume 43, Issue 4, Pages 1795-1806 Impact Factor: 1.518 Quartile: 3 Citations: 48 DOI: https://doi.org/10.1007/s13369-017-2729-2	2018
Permanent deformation prediction of asphalt concrete mixtures - A synthesis to explore a rational approach <i>Yasir Ali Muhammad Irfan Sarfraz Ahmed Shafeeq Ahmed</i> <i>Construction and Building Materials</i> , Volume 153, Pages 588-597 Impact Factor: 3.485 Quartile: 1 Citations: 33 DOI: https://doi.org/10.1016/j.conbuildmat.2017.07.105	2017
Performance Evaluation of Elvaloy as a Fuel-Resistant Polymer in Asphaltic Concrete Airfield Pavements <i>Muhammad Irfan Madeeha Saeed Sarfraz Ahmed Y. Ali</i> <i>Journal of Materials in Civil Engineering</i> , Volume 29, Issue 10, Article Number 04017163 Impact Factor: 1.763 Quartile: 2 Citations: 29 DOI: https://doi.org/10.1061/(ASCE)MT.1943-5533.0002018	2017
Empirical Correlation of Permanent Deformation Tests for Evaluating the Rutting Response of Conventional Asphaltic Concrete Mixtures <i>Muhammad Irfan Yasir Ali Sarfraz Ahmed Shafeeq Ahmed</i> <i>Journal of Materials in Civil Engineering</i> , Volume 29, Issue 8, Article Number 04017059 Impact Factor: 1.763 Quartile: 2 Citations: 31 DOI: https://doi.org/10.1061/(ASCE)MT.1943-5533.0001888	2017
Characterization of Various Plant-Produced Asphalt Concrete Mixtures Using Dynamic Modulus Test <i>Sarfraz Ahmed Yasir Ali Muhammad Irfan Asad S. Waraich</i> <i>Advances in Materials Science and Engineering</i> , Volume 2016, Article ID 5618427, 12 pages Impact Factor: 1.299 Quartile: 3 Citations: 27 DOI: http://dx.doi.org/10.1155/2016/5618427	2016
Investigation of factors affecting dynamic modulus and phase angle of various asphalt concrete mixtures <i>Yasir Ali S. Khanzada Tariq Mahmood Yasir Ali Muhammad Irfan Sarfraz Ahmed S. Khanzada Tariq Mahmood</i> <i>Materials and Structures</i> , Volume 49, Issue 3, Pages 857-868 Impact Factor: 2.607 Quartile: 1 Citations: 58 DOI: DOI:10.1617/s11527-015-0544-3	2016
Sensitivity analysis of dynamic response and fatigue behaviour of various asphalt concrete mixtures <i>Sarfraz Ahmed Muhammad Irfan Yasir Ali Shahab Khanzada Tariq Mahmood</i> <i>Fatigue and Fracture of Engineering Materials and Structures</i> , Volume 38, Issue 10, Pages 1181-1193 Impact Factor: 1.838 Quartile: 1 Citations: 28 DOI: https://doi.org/10.1111/ffe.12297	2015
Utilization of Waste Polyethylene in Asphalt Mixes in Pakistan <i>Bilal Khurshid Sarfraz Ahmed Muhammad Jawed Iqbal Muhammad Irfan</i> <i>Sarhad University International Journal of Basic and Applied Sciences</i> , Volume 2, Issue 1, Pages 1-8 Impact Factor: N/A DOI: 000	2014

- Cracking resistance of thin-bonded overlays using fracture test, numerical simulations and early field performance** 2013
Sarfraz Ahmed Eshan V. Dave William G. Buttlar Marvin K. Exline
International Journal of Pavement Engineering, Volume 14, Issue 6, Pages 540-552
Impact Factor: 1.108 | **Quartile:** 2 | **Citations:** 17
DOI: <https://doi.org/10.1080/10298436.2012.711474>
- An Analytical Framework for Optimizing the Highway and Civil Infrastructure Interventions** 2013
Dr. Muhammad Bilal Khurshid Muhammad Irfan Sarfraz Ahmed Shahid Iqbal
Sarhad University International Journal of Basic and Applied Sciences, Volume 1, Issue No. 1, Pages 158-166
Impact Factor: N/A
DOI: <https://journal.suit.edu.pk/index.php/suijbas/issue/archive>
- An analytical review of traffic congestion on murree road rawalpindi** 2013
Dr. Muhammad Bilal Khurshid Dr. Sarfraz Ahmed Muhammad Jawed Iqbal
Sarhad University International Journal of Basic and Applied Sciences, Volume 1, No. 1, Pages 167-173
Impact Factor: N/A
- Factorial Design Approach to Investigate the Effect of Different Factors on the Resilient Modulus of bituminous Paving Mixes** 2012
Muhammad Babar Khan Afaq Khattak Sarfraz Ahmed Muhammad Babar Khan Afaq Khattak Muhammad Irfan
ARPJ Journal of Science and Technology, Volume 2, No. 11, Pages 1055-1062
Impact Factor: - | **Citations:** 21
DOI: <https://doi.org/10.1080/15732479.2013.767842>
- Compact tension test for fracture characterization of thin bonded asphalt overlay systems at low temperature** 2012
Sarfraz Ahmed Eshan V. Dave William Buttlar Behzad Behnia
Materials and Structures, Volume 45, Issue 8, Pages 1207-1220
Impact Factor: 1.184 | **Quartile:** 2 | **Citations:** 19
DOI: <https://doi.org/10.1617/s11527-012-9827-0>
- Development of fracture-energy based Interface Bond Test for asphalt concrete** 2012
Salman Hakimzadeh Nathan Abay Kebede William Buttlar Sarfraz Ahmed Marvin Exline
Road Materials and Pavement Design, Volume 13, Issue: SUPPL. 1, Pages 76-87
Impact Factor: 0.642 | **Quartile:** 4 | **Citations:** 33
DOI: <https://doi.org/10.1080/14680629.2012.657059>
- Effects of recycled asphalt pavement amounts on low-temperature cracking performance of asphalt mixtures using acoustic emissions** 2011
Behzad Behnia Eshan V. Dave Sarfraz Ahmed William Buttlar Henrique Reis
Transportation Research Record, Issue 2208, Pages 64-71
Impact Factor: 0.471 | **Quartile:** 3 | **Citations:** 147
DOI: <https://doi.org/10.3141/2208-09>
- Reflective Cracking Causes, Mechanisms and Mitigation Strategies** 2011
Sarfraz Ahmed
Corps of Engineers Journal, Pages 1-15
Impact Factor: N/A
DOI:
- Fracture Characterization of Gap-Graded Asphalt Mixtures and Thin Bonded Wearing Courses** 2010
Sarfraz Ahmed Eshan V. Dave Behzad Behnia William Buttlar Marvin Exline
International Journal of Pavement Research and Technology, Volume 3, No. 3, Pages 128-134
Impact Factor: N/A
DOI: <http://www.ijprt.org.tw/files/sample/V3N3%284%29.pdf>
- Fracture characterization of asphalt mixtures with reclaimed asphalt pavement** 2010
Behzad Behnia Sarfraz Ahmed Eshan V. Dave William Buttlar
International Journal of Pavement Research and Technology, Volume 3, No. 2, Pages 72-78
Impact Factor: N/A
DOI: <http://www.ijprt.org.tw/files/sample/V3N2%283%29.pdf>

<p>Can Asphaltic Concrete Permanent Deformation Test Methods be used as Surrogate to Each Other?</p> <p><i>Muhammad Irfan Yasir Ali Dr Sarfraz Ahmed</i> <i>Transportation Research Board 96th Annual Meeting, res.country(233,)</i></p> <p>Citations: N/A DOI: Nil</p>	2017
<p>Developing a Framework for an Efficacious Highway Asset Management System in Pakistan</p> <p><i>Muhammad Irfan Dr.Sarfraz Ahmed Samuel Labi</i> <i>8th International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV8), res.country(197,)</i></p> <p>Citations: N/A DOI: 10.3850/978-981-11-0449-7-234-cd</p>	2016
<p>Performance Evaluation of Asphaltic Airfield Pavements Using Elvaloy as a Fuel Resistant Polymer</p> <p><i>Muhammad Irfan Madeeha Saeed Intekhab Ahmed Qureshi Dr.Sarfraz Ahmed</i> <i>11th International Congress on Advances Civil Engineering (ACE 2014), res.country(224,)</i></p> <p>Citations: N/A DOI: Nil</p>	2014
<p>Experimental Investigation of Strength and Stiffness Characteristics of Hot Mix Asphalt (HMA)</p> <p><i>Muhammad Irfan Asst Prof Kashif Ahmed Dr.Sarfraz Ahmed Arsalan Ahmed Afaq Khatak</i> <i>Fourth International Symposium on Infrastructure Engineering in Developing Countries, IEDC 2013, res.country(177,)</i></p> <p>Citations: N/A DOI: 10.1016/j.proeng.2014.07.026</p>	2013
<p>Cracking Evaluation of Asphalt Concrete in Context of Intermediate Test Temperatures</p> <p><i>Brig Dr Muhammad Irfan Dr.Sarfraz Ahmed Dr. Eshan V. Dave Bilal Khurshid</i> <i>17th IRF World Meeting and Exhibition in Riyadh, res.country(192,)</i></p> <p>Citations: N/A DOI: Nil</p>	2013
<p>Impact Study: New Benazir Bhutto International Airport Islamabad</p> <p><i>Muhammad Irfan Muhammad Bilal Khurshid Dr.Sarfraz Ahmed Muhammad Jawed Iqbal</i> <i>5th World Engineering Congress (WEC), res.country(177,)</i></p> <p>Citations: N/A DOI: Nil</p>	2013
<p>Comparative analysis of conventional and waste polyethylene modified bituminous mixes: A new dimension of effective environmental & waste management</p> <p><i>Bilal Khurshid Dr.Sarfraz Ahmed Muhammad Irfan Lt Col Sajid Mehmood</i> <i>International Conference on Remote Sensing, Environment and Transportation Engineering (RSETE 2013), res.country(48,)</i></p> <p>Citations: N/A DOI: 10.2991/rsete.2013.84</p>	2013
<p>Evaluation of Railroad Subgrade – A Parametric Study</p> <p><i>Dr.Sarfraz Ahmed Bilal Khurshid Manzoor Hussain Abdul Qudoos Khan</i> <i>13th National Conference on Geotechnical Engineering, res.country(177,)</i></p> <p>Citations: N/A DOI: Nil</p>	2013
<p>Vacuum Preloading Techniques – A Comparative Study</p> <p><i>Abdul Qudoos Khan Manzoor Hussain Sarfraz Ahmed</i> <i>13th National Conference on Geotechnical Engineering, res.country(177,)</i></p> <p>Citations: N/A DOI: Nil</p>	2013
<p>An Analytical Framework for Optimizing the Highway & Civil Infrastructure Interventions</p> <p><i>Brig Dr Muhammad Irfan Bilal Khurshid Dr.Sarfraz Ahmed Dr Shahid Iqbal</i> <i>2nd International Multidisciplinary Conference towards Better Pakistan, res.country(177,)</i></p> <p>Citations: N/A DOI: Nil</p>	2012
<p>Investigation of Effects of Recycled Asphalt Pavement (RAP) on Low Temperature Cracking Performance of Asphalt Mixtures</p> <p><i>Dr. sarfraz ahmed Behzad Behnia William G. Buttlar Eshan V. Dave Henrique Reis</i> <i>ASCE Transportation and Development Institute's Green Streets and Highways Conference, res.country(233,)</i></p>	2010

Citations: N/A

DOI: Nil

Comprehensive Database of Asphalt Concrete Fracture Energy and Links to Field Performance

2010

William Buttlar Sarfraz Ahmed Eshan V. Dave ANDREW F. BRAHAM

the 89th Annual Meeting of the Transportation Research Board, Washington, DC, res.country(233,)

Citations: N/A

DOI: Nil