Muhammad Usman

Professor

NUST Institute of Civil Engineering

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Contact:
LinkedIn:

About

Dr. Muhammad Usman is working as Professor in the NUST Institute of Civil Engineering. Dr. Muhammad Usman has a PhD in Structural Health Monitoring, Energy Harvesting. Dr. Muhammad Usman has published 85 research articles & conference papers having a citation count of 2051, carried out 23 projects and filed 4 intellectual property.

Qualifications

PhD in Structural Health Monitoring, Energy Harvesting 2012 - 2016
Korea Advanced Institute of Science & Technology , Pakistan

MS in Structural Dynamics 2008 - 2010
Korea Advanced Institute of Science & Technology , Korea

BE in Structures 2003 - 2007
NUST, Islamabad , Pakistan

Experience

Professor 2025- Present
NUST Institute of Civil Engineering

Associate Professor 2021 - 2019
NUST Institute of Civil Engineering

Assistant Professor 2019 - 2021
NUST Institute of Civil Engineering

Assistant Professor 2016 - 2021
(Do Not Use-Duplicate)NUST Institute of Civil Engineering

Assistant Professor 2016 - 2016
(Do Not Use-Duplicate)NUST Institute of Civil Engineering

Lecturer 2010 - 2016
(Do Not Use-Duplicate)NUST Institute of Civil Engineering

Research associate 2011 - 2016
Structural Control and Intelligent Systems Lab (KAIST) , Daejeon, South Korea

Research Assistant 2008 - 2010
Structural Control and Intelligent Systems Lab (KAIST) , KAIST, Daejeon, South Korea

Junior Engineer 2007 - 2008
NESPAK , F6 Islamabad, Pakistan

Structural Engineer 2007 - 2007
Pakistan Engineering Services (PES) , Lahore, Pakistan

Research Associate 2007 - 2007
NIT (NUST) , Risalpur Pakistan

Awards

ICE Publising Award 2020
ICE Publishing Award (Fredrick Palmer's Prize)

Professional Memberships

PEC Since 2007

Research Projects

National Projects

Formulation of Printable Mix Design for Prefabricated Modular Construction 2025
Funding Agency: IGNITE
Amount: PKR 57,334.00
Status: Completed

Development of NextGen Concrete 2023
Funding Agency: NUST
Amount: PKR 17,000,000.00
Status: Approved_inprocess

Large Scale 3D Concrete Printing 2023
Funding Agency: NUST
Amount: PKR 72,800,000.00
Status: Approved_inprocess

Sustainable Construction 3D-Printer 2021
Funding Agency: NUST
Amount: PKR 1,000,000.00
Status: Completed

Development of Magneto-Rheological Elastomer Based Seismic Isolation Systems for Seismic Protection of Civil Structures 2017
Funding Agency: HEC
Amount: PKR 495,000.00
Status: Completed

Feasibility study of Smart MRE based base isolation system for Large scale application in civil engineering structures 2019
Funding Agency: HEC
Amount: PKR 11,990,000.00
Status: Completed

International Projects

Industry Projects

National Projects

Non-destructive Testing of R.C.C Structures at Bhara Kaho Fly-Over Islamabad - ECSP 2024
Client: M/S Engineering Consultancy Services Punjab
Amount: PKR 156,000.00
Status: Completed

Provision of Consultancy Services for Non-Destructive testing (NDT) of Business District Building, DHA-5, Express Highway, Islamabad 2024
Client: M/S Comrades Planning & Design
Amount: PKR 1,460,000.00
Status: Completed

Provision of Consultancy services for the Ultrasonic Pulse Velocity Testing of a Transom at Bara Kahu Bypass 2023
Client: M/S Innovative Nanoengineering Consulting Engineers
Amount: PKR 90,000.00
Status: Completed

Provision of Consultancy Services for Core Testing of the Project “ESTABLISHMENT OF CANCER HOSPITAL, PIMS, ISLAMABAD” 2024
Client: Pak PWD
Amount: PKR 205,000.00
Status: Completed

SEMI-DESTRUCTIVE TESTING ON FIRE-EXPOSED PORTION OF CENTAURUS BUILDING ISLAMABAD 2023
Client: Capital Development Authority
Amount: PKR 1,520,000.00
Status: Completed

Provision of Consultancy Services for Feasibility Study and Rehabilitation Design of Bhakkar-DI Khan Bridge 2023
Client: Khyber Pakhtunkhwa Highway division
Amount: PKR 2,535,000.00
Status: Completed

Comparison of Best way and Fauji Cement Quality as per ASTM C-109 and BS EN-196 2022
Client: China Gezhouba Group Co. Ltd. Dasu Hydropower Project Management
Amount: PKR 248,000.00
Status: Completed

comparison of Cement Quality and Strength as per ASTM C-109 and BS EN-196 2022
Client: China Gezhouba Group Co. Ltd. Dasu Hydropower Project Management
Amount: PKR 94,000.00
Status: Completed

Screed Mix Recipe for Qavi Engineering 2022
Client: Qavi Engineers
Amount: PKR 140,000.00
Status: Completed

Ferro Scanning and Ultrasonic Pulse Velocity Testing at House # 677, G-9, Islamabad 2022
Client: Mr. Asghar Golo
Amount: PKR 55,000.00
Status: Completed

Concrete Mix Recipe for Agha Khan Medical Center, Gilgit using locally available materials 2021
Client: Al-Shafi Enterprises
Amount: PKR 200,000.00
Status: Completed

Concrete Quality Assessment of RCC Foundation of Dormitory at CTTI Islamabad 2021
Client: Pak PWD Islamabad
Amount: PKR 411,000.00
Status: Completed

Assessment of Concrete Quality of Base Slab Foundation at German Embassy Islamabad 2021
Client: Qavi Engineers
Amount: PKR 96,000.00
Status: Completed

Expanded Polystyrene Smart (EPS) Panel Testing 2021
Client: EPS Solutions
Amount: PKR 462,000.00
Status: Completed

Design for Construction of Mini Dam at Tehsil Naushera, District Khushab 2020
Client: N/A
Amount: PKR 1,804,910.00
Status: Approved_inprocess

Expert Opinion on the Seismic Hazard Level and its Design Implications at Pakistan Gulpur Hydropower Project, District Kotli, AJK 2020
Client: Daelim Lotte
Amount: PKR 1,275,000.00
Status: Approved_inprocess

International Projects

Concrete Core Sampling and Testing of Rehmanabad Mall, Rehmanabad Chowk, Murree Road, Rawalpindi 2021
Client: Al-Furqan International
Amount: PKR 117,000.00
Status: Completed

Research Articles

Probabilistic seismic loss estimation for residential buildings in Pakistan 2025

Sajid Mehmood Fawad Ahmed Najam Muhammad Usman Zain Ul Abidin Ali Khan Ghouri

Natural Hazards , Volume:121, Issue:12, Page:14443-14486

Impact Factor: 3.700 | **Quartile:** 1

DOI: https://doi.org/10.1007/s11069-025-07362-5

Numerical investigations on RC beam-column structures under collapse phenomenon-a simplified finite element approach 2025

Aleem Ullah Abdul Qadir Bhatti Attiq Ur Rahman Dogar Girum Urgessa Muhammad Usman

Innovative Infrastructure Solutions , Volume:10, Issue:6, Article Number 229

Impact Factor: 2.400 | **Quartile:** 2

DOI: https://doi.org/10.1007/s41062-025-02000-2

Advancing mix design prediction in 3D printed concrete: Predicting anisotropic compressive strength and slump flow 2024

Umair Jalil Malik Raja Dilawar Riaz Muhammad Usman Raja Ehsan Riaz Raja Hamza Saif Ur Rehman

Case studies in construction materials, Volume 21 , Article Number e03510

Impact Factor: 6.500 | **Quartile:** 1 | **Citations:** 8

DOI: https://doi.org/10.1016/j.cscm.2024.e03510

Effect of web holes on web crippling capacity of rectangular hollow steel sections under two flange loadings 2024

Muhammad Amir Taimur Junaid Ahmad Sarmad Shakeel Muhammad Usman

Journal of Constructional Steel Research, Volume 222, Article Number 108985

Impact Factor: 4.000 | **Quartile:** 1

DOI: https://doi.org/10.1016/j.jcsr.2024.108985

Augmented Data-Driven Approach towards 3D Printed Concrete Mix Prediction 2024

Saif Ur Rehman Raja Dilawar Riaz Muhammad Usman In-Ho Kim

Applied Sciences , Volume 14(16), Article Number 7231

Impact Factor: 2.500 | **Quartile:** 1 | **Citations:** 3

DOI: https://doi.org/10.3390/app14167231

Thermal Performance Assessment of Concrete Walls Using Different Phase Change Materials 2024

Muhammad Usman Mahmood Hussain Arslan Mushtaq Syed Hassan Farooq Atif Mehmood Asad Hanif

Advances in Civil Engineering , Volume 2024, Article ID 2994221, 10 pages

Impact Factor: 1.500 | **Quartile:** 3 | **Citations:** 1

DOI: https://doi.org/10.1155/2024/2994221

Modal-based fragility analysis of high-rise tubular structures: A methodology for vulnerability assessment 2024

Muhammad Zain Chayut Ngamkhanong Thomas H.-K. Kang Dr Muhammad Usman Lapyote Prasittisopin

Structures , Volume:63, Article Number: 106289

Impact Factor: 3.9 | **Quartile:** 1 | **Citations:** 7

DOI: 10.1016/j.istruc.2024.106289

Optimizing Reinforcement Strategies for Robust Beam-Column Joints in Seismic-Resistant Structures 2024

Hafiz Ahmed Waqas Mehran Sahil Muhammad Mansoor Khan Abdul Wahid Anwar Mati Ullah Shah Muhammad Usman

Arabian Journal for Science and Engineering, Volume 49, Issue 4, Pages 6107-6124

Impact Factor: 2.600 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.1007/s13369-023-08591-1

Establishing Efficacy of Machine Learning Techniques for Vulnerability Information of Tubular Buildings 2024

Muhammad Zain Suraparb Keawsawasvong Chanachai Thongchom Issara Sereewatthanawut Muhammad Usman Lapyote Prasittisopin

Engineered Science , Volume 27, Article Number 1008

Impact Factor: N/A | **Citations:** 21

DOI: 10.30919/es1008

Advancing structural health monitoring: A vibration-based IoT approach for remote real-time systems 2024

Saif Ur Rehman Muhammad Usman Muhammad Huzaifa Younus Toor Qalandar Ali Hussaini

Sensors and Actuators A: Physical, Volume 365, Article Number 114863

Impact Factor: 4.6 | **Quartile:** 1 | **Citations:** 22

DOI: 10.1016/j.sna.2023.114863

Effect of Different Confinements on High-Strength Steel Fiber-Reinforced Concrete (SFRC) Beams 2023

Hammad Hafeez Waqas Ahmad Muhammad Usman Asad Hanif

Arabian Journal for Science and Engineering, Pages 1-14

Impact Factor: 2.9 | **Quartile:** 2 | **Citations:** 1

DOI: 10.1007/s13369-023-08171-3

Enhanced mechanical properties of surface modified and silica reinforced nomex sandwich composites 2023

Malik Adeel Umer Muhammad Irfan Muhammad Siyar Muhammad Usman Sana Abbasi Muhammad Talha Masood

Materials Today Communications, Volume 36, Article Number 106346

Impact Factor: 3.8 | **Quartile:** 2 | **Citations:** 2

DOI: 10.1016/j.mtcomm.2023.106346

Diagnosis of durability-related problems in concrete structures through comprehensive analysis and non-destructive testing: a case study 2023

Mati Ullah Shah Muhammad Usman Rao Arsalan Khushnood Asad Hanif

Journal of Structural Integrity and Maintenance, Pages 1-11

Impact Factor: 3.00 | **Quartile:** 2 | **Citations:** 12

DOI: https://doi.org/10.1080/24705314.2023.2233812

Machine Learning-Based Predictive Model for Tensile and Flexural Strength of 3D-Printed Concrete 2023

Ammar Ali Raja Dilawar Riaz Umair Jalil Malik Syed Baqar Abbas Muhammad Usman Mati Ullah Shah In-Ho Kim Asad Hanif Muhammad Faizan

Materials , Volume 16, Issue 11, Article Number 4149

Impact Factor: 3.4 | **Quartile:** 2 | **Citations:** 41

DOI: https://doi.org/10.3390/ma16114149

Development of mortar filled honeycomb sandwich panels for resistance against repeated ballistic impacts 2023

Mehvesh Iqbal Muhammad Usman Ghulam Hussain Malik Adeel Umer Asad Hanif Wasim Khaliq

Journal of Materials Research and Technology, Volume 24, Pages 8121-8134

Impact Factor: 6.267 | **Quartile:** 1 | **Citations:** 6

DOI: https://doi.org/10.1016/j.jmrt.2023.05.026

Self-centering passive base isolation system incorporating shape memory alloy wires for reduction in base drift 2023

Sania Dawood Muhammad Usman Mati Ullah Shah Muhammad Rizwan

Smart Structures and Systems, Volume 31, No.5, Pages 531-543 (13 pages)

Impact Factor: 3.5 | **Quartile:** 2 | **Citations:** 2

DOI: https://doi.org/10.12989/sss.2023.31.5.531

Enhancing Seismic Resilience of Existing Reinforced Concrete Building Using Non-Linear Viscous Dampers: A Comparative Study 2023

Raja Dilawar Riaz Umair Jalil Malik Mati Ullah Shah Muhammad Usman Fawad Ahmed Najam

Actuators , Volume 12, Issue 4, Article Number 175

Impact Factor: 2.6 | **Quartile:** 2 | **Citations:** 16

DOI: https://doi.org/10.3390/act12040175

Effect of multiwalled carbon nanotubes on compressive behavior of concrete at elevated temperature for mass concreting 2023

Kashan Nisar Muhammad Shahid Siddique Muhammad Rizwan Syed Hassan Farooq Muhammad Usman Asad Hanif

European Journal of Environmental and Civil Engineering, Pages 1-24

Impact Factor: 2.187 | **Quartile:** 3 | **Citations:** 3

DOI: 10.1080/19648189.2023.2194957

Experimental investigation of tuned liquid column ball damper's position on vibration control of structure using different fluids 2023

Mati Ullah Shah Syed Waiz Shah Syed Hassan Farooq Muhammad Usman Farhan Ullah

Innovative Infrastructure Solutions , Volume 8, Issue 3, Article Number 111

Impact Factor: 2.300 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.1007/s41062-023-01080-2

Spring-controlled modified tuned liquid column ball damper for vibration mitigation of structures 2023

Mati Ullah Shah Muhammad Usman Syed Hassan Farooq Muhammad Rizwan

Journal of Sound and Vibration, Volume 545, Article Number 117443

Impact Factor: 4.761 | **Quartile:** 1 | **Citations:** 25
DOI: doi.org/10.1016/j.jsv.2022.117443

Axial compressive behavior of concrete incorporating crumb rubber pretreated with waste quarry dust 2022

Muhammad Ashar ul Aleem Muhammad Shahid Siddique Syed Hassan Farooq Muhammad Usman Muhammad Hamza Ahsan Manzoor Hussain Asad Hanif

Journal of Building Engineering, Volume 59, Article Number 105086

Impact Factor: 7.144 | **Quartile:** 1 | **Citations:** 17
DOI: https://doi.org/10.1016/j.jobe.2022.105086

Analytical and experimental investigations on the performance of tuned liquid column ball damper considering a hollow ball 2022

Mati Ullah Shah Muhammad Usman In-Ho, Kim Sania Dawood

Structural Engineering and Mechanics , Volume 83, Issue 5, Pages 655-669

Impact Factor: 2.998 | **Quartile:** 2 | **Citations:** 5
DOI: 10.12989/sem.2022.83.5.655

Machine Learning-Based Fragility Assessment of Reinforced Concrete Buildings 2022

Abdur Rasheed Muhammad Usman Muhammad Zain Nadeem Iqbal

Computational Intelligence and Neuroscience, Volume 2022, Article ID 5504283, 12 pages

Impact Factor: 3.120 | **Quartile:** 2 | **Citations:** 11
DOI: https://doi.org/10.1155/2022/5504283

Effect of Volume Fraction on Shear Mode Properties of Fe-Co and Fe-Ni Filled Magneto-Rheological Elastomers 2022

Shayan Tahir Muhammad Usman Malik Adeel Umer

Polymers , Volume:14, Issue:14,

Impact Factor: 4.967 | **Quartile:** 1 | **Citations:** 14
DOI: https://doi.org/10.3390/polym14142968

Experimental Investigation of Concrete Properties using Locally available Coarse Aggregates in Punjab, Pakistan 2022

Muhammad Ilyas Khan Matiullah Shah Muhammad Usman

NUST Journal of Engineering Sciences, Volume 15, No. 1, Pages 26-29

Impact Factor: N/A
DOI: https://doi.org/10.24949/njes.v15i1.655

An experimental study of tuned liquid column damper controlled multi-degree of freedom structure subject to harmonic and seismic excitations 2022

Mati Ullah Shah Muhammad Usman

PLOS ONE, Volume 17, Issue 6, Article Number e0269910

Impact Factor: 3.752 | **Quartile:** 2 | **Citations:** 18
DOI: https://doi.org/10.1371/journal.pone.0269910

In-Plane Seismic Strengthening of Brick Masonry Using Steel and Plastic Meshes 2022

Safi Ullah Syed Hassan Farooq Muhammad Usman Burhan Ullah Manzoor Hussain Asad Hanif

Materials , Volume 15, Issue 11, Article Number 4013

Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 5
DOI: https://doi.org/10.3390/ma15114013

Mechanical behavior of high-strength concrete incorporating seashell powder at elevated temperatures 2022

Muhammad Hamza Ahsan Muhamad Shahid Siddique Syed Hassan Farooq Muhammad Usman Muhammad Ashar ul Aleem Manzoor Hussain Asad Hanif

Journal of Building Engineering, Volume 50, Article Number 104226

Impact Factor: 5.318 | **Quartile:** 1 | **Citations:** 38
DOI: https://doi.org/10.1016/j.jobe.2022.104226

Microstructure and Corrosion Behavior of Atmospheric Plasma Sprayed NiCoCrAlFe High Entropy Alloy Coating 2022

Kashif Mehmood Malik Adeel Umer Ahmed Umar Munawar M. Imran Muhammad Shahid Rabeeka Firdous Humair Kousar Muhammad Usman

Materials , Volume 15, Issue 4, Article Number 1486

Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 18
DOI: https://doi.org/10.3390/ma15041486

Performance Evaluation of MWCNTs Reinforced Cement Mortar Composites using Natural and Commercial Surfactants 2022

Qareeb Ullah Rao Arsalan Khushnood Sajjad Ahmad Muhammad Usman Shad Muhammad Jean-Marc Tulliani

Journal of Wuhan University of Technology-Mater. Sci. Ed., Volume 37, Pages47-57

Impact Factor: 0.957 | **Quartile:** 4 | **Citations:** 2

DOI: https://doi.org/10.1007/s11595-022-2498-y

Vibration control of an irregular structure using single and multiple tuned mass dampers 2022

Imdad Ullah Khan Muhammad Usman Muhammad Tanveer

Proceedings of the Institution of Civil Engineers - Structures and Buildings , Pages 1-13

Impact Factor: 1.171 | **Quartile:** 4 | **Citations:** 4

DOI: https://doi.org/10.1680/jstbu.21.00011

Effect of Tuned Spring on Vibration Control Performance of Modified Liquid Column Ball Damper 2021

Mati Ullah Shah Muhammad Usman Syed Hassan Farooq In-Ho Kim

Applied Sciences , Volume 12(1), Article Number 318

Impact Factor: 2.679 | **Quartile:** 1 | **Citations:** 16

DOI: 10.3390/app12010318

Suitability of liquid crystal display (LCD) glass waste as supplementary cementing material (SCM): Assessment based on strength, porosity, and durability 2021

Hee JunYang Muhammad Usman Asad Hanif

Journal of Building Engineering, Volume 42, Article Number 102793

Impact Factor: 5.318 | **Quartile:** 1 | **Citations:** 34

DOI: https://doi.org/10.1016/j.jobe.2021.102793

A Framework with reduced computational burden for Seismic Fragility Assessment of Reinforced Concrete Buildings in High-Intensity Seismic Zones 2021

Muhammad Zain Muhammad Usman Syed Hassan Farooq

Structures , Volume 33, Pages 3055-3065

Impact Factor: 2.983 | **Quartile:** 2 | **Citations:** 13

DOI: https://doi.org/10.1016/j.istruc.2021.06.050

Effect of steel and concrete thickness on shear strength of square concrete filled double skin tubular beams 2021

Muhammad Usman Wahab Ashraf Asad Hanif Syed Hassan Farooq Najeeb Ullah

Case Studies in Construction Materials, Volume 14, Article Number e00478

Impact Factor: 4.934 | **Quartile:** 1 | **Citations:** 6

DOI: https://doi.org/10.1016/j.cscm.2020.e00478

Effect of masonry infill on analytical fragility response of RC frame school buildings in high seismic zone 2021

Muhammad Waleed Khan Muhammad Usman Syed Hassan Farooq Muhammad Zain Sajid Saleem

Journal of Structural Integrity and Maintenance, Volume 6, Issue 2, Pages 110-122

Impact Factor: N/A | **Citations:** 14

DOI: https://doi.org/10.1080/24705314.2020.1865624

Investigation of the Structural Response of the MRE-Based MDOF Isolated Structure under Historic Near- and Far-Fault Earthquake Loadings 2021

Muhammad Ahsan Tariq Syed Hassan Farooq Imran Ullah Asad Hanif Muhammad Usman

Applied Sciences , Volume 11(6), Article Number 2876

Impact Factor: 2.838 | **Quartile:** 2 | **Citations:** 11

DOI: https://doi.org/10.3390/app11062876

Utilization of Solid Waste from Brick Industry and Hydrated Lime in Self-Compacting Cement Pastes 2021

Mati Ullah Shah Muhammad Usman Iqra Naseem Muhammad Usman Hanif Sara Farooq

Materials , Volume 14(5), Article Number 1109

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

DOI: https://doi.org/10.3390/ma14051109

Durability of slag waste incorporated steel fiber-reinforced concrete in marine environment 2021

Seungwon Kim Yongjae Kim Muhammad Usman Cheolwoo Park Asad Hanif

Journal of Building Engineering, Volume 33, Article Number 101641

Impact Factor: 7.144 | **Quartile:** 1 | **Citations:** 58

DOI: https://doi.org/10.1016/j.jobe.2020.101641

Recent Progress in Isotropic Magnetorheological Elastomers and Their Properties: A Review 2020

Muhammad Arslan Hafeez Muhammad Usman Asad Hanif Malik Adeel Umar

Polymers , Volume 12(12), Article Number 3023

Impact Factor: 4.329 | **Quartile:** 1 | **Citations:** 47

DOI: 10.3390/polym12123023

Material Optimization of Tuned Liquid Column Ball Damper (TLCBD) for the Vibration Control of Multi-Storey Structure Using Various Liquid and Ball Densities 2020

Muhammad Tanveer Muhammad Usman Imdad Ullah Khan Syed Hassan Farooq Asad Hanif

Journal of Building Engineering, Volume 32, Article Number 101742

Impact Factor: 5.318 | **Quartile:** 1 | **Citations:** 33

DOI: https://doi.org/10.1016/j.jobe.2020.101742

Interfacial characteristics of cement mortars containing aggregate derived from industrial slag waste 2020

Hyongi Lee Asad Hanif Muhammad Usman Yonghwan Kim Hongseob Oh Seong Kyum Kim

Journal of Structural Integrity and Maintenance, Volume 5, Issue 4, Page 236-243

Impact Factor: - | **Citations:** 10

DOI: https://doi.org/10.1080/24705314.2020.1783124

Emerging trends in the growth of structural systems for tall buildings 2020

Shazim Ali Memon Muhammad Zain Dichuan Zhang Sardar Kashif Ur Rehman Muhammad Usman Deuckhang Lee

Journal of Structural Integrity and Maintenance, Volume 5, Issue 3, Page 155-170

Impact Factor: - | **Citations:** 33

DOI: https://doi.org/10.1080/24705314.2020.1765270

Flexural properties of concrete filled double skin (SHS outer and SHS inner) tubular Beams 2020

Wahab Ashraf Muhammad Usman Syed Hassan Farooq Najeeb Ullad Sajid Saleem

Proceedings of the Institution of Civil Engineers - Structures and Buildings, Pages 1-13

Impact Factor: 1.171 | **Quartile:** 4 | **Citations:** 5

DOI: https://doi.org/10.1680/jstbu.19.00190

Development and characterization of a novel hybrid magnetorheological elastomer incorporating micro and nano size iron fillers 2020

Sadia Umer Khayam Muhammad Usman Malik Adeel Umer Ahmed Rafique

Materials & Design, Volume 192, Article Number 108748

Impact Factor: 7.991 | **Quartile:** 1 | **Citations:** 51

DOI: https://doi.org/10.1016/j.matdes.2020.108748

Optimized Corrosion Performance of AISI 1345 Steel in Hydrochloric Acid Through Thermo-Mechanical Cyclic Annealing Processes 2020

Muhammad Usman Muhammad Arslan Hafeez Aqil Inam Misbah Ul Hassan Malik Adeel Umer Asad Hanif

Crystals , Volume 10, Article Number 256

Impact Factor: 2.589 | **Quartile:** 2 | **Citations:** 5

DOI: 10.3390/cryst10040265

Effect of Coconut Fiber Length and Content on Properties of High Strength Concrete 2020

Muhammad Usman Waqas Ahmad Syed Hassan Farooq Mehran Khan Ayaz Ahmed Fahid Aslam Rayed Al Yousef Hisham Al Abduljabbar Muhammad Sufian

Materials , Volume 13, Issue 5, Article Number 1075

Impact Factor: 3.623 | **Quartile:** 1 | **Citations:** 162

DOI: https://doi.org/10.3390/ma13051075

Axial compressive behavior of confined steel fiber reinforced high strength concrete 2020

Muhammad Usman Syed Hassan Farooq Mohammad Umair Asad Hanif

Construction and Building Materials , Volume 230, Article Number 117043

Impact Factor: 6.141 | **Quartile:** 1 | **Citations:** 83

DOI: https://doi.org/10.1016/j.conbuildmat.2019.117043

Improving structural performance of timber wall panels by inexpensive FRP retrofitting techniques 2020

Muhammad Ammad Hassan Muhammad Usman Asad Hanif Syed Hassan Farooq Jamil Ahmed

Journal of Building Engineering, Volume 27, Article Number 101004

Impact Factor: 5.318 | **Quartile:** 1 | **Citations:** 23

DOI: https://doi.org/10.1016/j.jobe.2019.101004

Application of tuned liquid column ball damper (TLCBD) for improved vibration control performance of multi-storey structure 2019

Muhammad Tanveer Muhammad Usman Imdad Ullah Khan Shakil Ahmad Asad Hanif Syed Hassan Farooq

PLoS ONE , Volume 14(10), Article Number e0224436

Impact Factor: 2.740 | **Quartile:** 2 | **Citations:** 26

DOI: 10.1371/journal.pone.0224436

Seismic Vulnerability Assessment of School Buildings in Seismic Zone 4 of Pakistan 2019

Muhammad Zain Muhammad Usman Syed Hassan Farooq Tahir mehmood

Advances in Civil Engineering , Volume: 2019 Article Number: 5808256

Impact Factor: 1.176 | **Quartile:** 3 | **Citations:** 28

DOI: 10.1155/2019/5808256

Self-Consolidating Lightweight Concrete Incorporating Limestone Powder and Fly Ash as Supplementary Cementing Material 2019

Muhammad Ilyas khan Muhammad Usman Syed Ali Rizwan Asad Hanif

Materials , Volume: 12 Issue: 18 Article Number: 3050

Impact Factor: 3.057 | **Quartile:** 2 | **Citations:** 25

DOI: 10.3390/ma12183050

Blast Loading Response of Reinforced Concrete Panels Externally Reinforced with Steel Strips 2019

Rizwan Khan Syed Hassan Farooq Muhammad Usman

Infrastructures , Volume 4, Issue 3

Impact Factor: 0 | **Citations:** 15

DOI: 10.3390/infrastructures4030054

Influence of bonded mortar of recycled concrete aggregates on interfacial characteristics – Porosity assessment based on pore segmentation from backscattered electron image analysis 2019

Asad Hanif Muhammad Usman Wonjun Park YongJae kim

Construction and Building Materials , Volume 212, Pages 149-163

Impact Factor: 4.419 | **Quartile:** 1 | **Citations:** 88

DOI: 10.1016/j.conbuildmat.2019.03.265

Properties enhancement of super absorbent polymer (SAP) incorporated self-compacting cement pastes modified by nano silica (NS) addition 2019

Hassan Baloch Muhammad Usman Syed Ali Rizwan Asad Hanif

Construction and Building Materials , Volume 203, Pages 18-26

Impact Factor: 4.419 | **Quartile:** 1 | **Citations:** 80

DOI: 10.1016/j.conbuildmat.2019.01.096

Ambient Vibration Testing of a Pedestrian Bridge Using Low-Cost Accelerometers for SHM Applications 2019

Azam Ali Talha Yousaf Sandhu Muhammad Usman

Smart Cities , Volume 2, Issue 1, Pages 20-30

Impact Factor: 0 | **Citations:** 34

DOI: 10.3390/smartcities2010002

Optimization of Steam-Curing Regime for Recycled Aggregate Concrete Incorporating High Early Strength Cement-A Parametric Study 2018

Asad Hanif Yongjae Kim Cheolwoo Park Muhammad Usman

Materials , Volume: 11, Issue: 12, Article Number: 2487

Impact Factor: 2.972 | **Quartile:** 2 | **Citations:** 22

DOI: 10.3390/ma11122487

Progressive structural capacity loss assessment-A framework for modern reinforced concrete buildings 2018

Muhammad Zain Muhammad Usman Syed Hassan Farooq Asad Hanif

PLoS ONE , Volume 13, Issue 12, Article Number e0208149

Impact Factor: 2.776 | **Quartile:** 2 | **Citations:** 10

DOI: 10.1371/journal.pone.0208149

Effect of Soil-Structure Interaction on a Masonry Structure under Train Induced Vibrations 2018

Bilal Lal Khan Syed Hassan Farooq Muhammad Usman Faheem Butt Abdul Qudoos Khan Asad Hanif

Proceedings of the Institution of Civil Engineers - Structures and Buildings, -

Impact Factor: 0.877 | **Quartile:** 4 | **Citations:** 16

DOI: 10.1680/jstbu.18.00131

Structural reliability analysis of superstructure of highway bridges on China-Pakistan Economic Corridor (CPEC): a case study 2018

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Reviewed Papers for Journals

Impact Factor: 6.7

Advances in Civil Engineering 2024

Reviewed Papers for Journals

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Impact Factor: 3.752

Advances in Civil Engineering 2023

Reviewed Papers for Journals

Impact Factor: 1.8

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2021
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2020
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Edited Journal Issue / Proceeding / Book
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Impact Factor: 6.082

2019

Reviewed Papers for Journals
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2017

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Intellectual Property

Copyrights

Source code of Optimus3D 2024

Status: Filed

User Interface of Optimus3D 2024

Status: Filed

Patents

Industrial Designs

Progressive-Variable Screw Extruder 2024

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Extruder of 3D printer 2023

Status: Filed

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