

# Rao Arsalan Khushnood

Associate Professor  
NUST Institute of Civil Engineering

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## About

Dr. Rao Arsalan Khushnood is working as Associate Professor in the NUST Institute of Civil Engineering. Dr. Rao Arsalan Khushnood has a PhD in Structural Engineering. Dr. Rao Arsalan Khushnood has published 87 research articles & conference papers having a citation count of 2708, carried out 12 projects and filed 2 intellectual property.

## Qualifications

<b>PhD in Structural Engineering</b> University of Turin , Italy	2012 - 2015
<b>MS in Structural Engineering</b> NUST, Islamabad , Pakistan	2009 - 2011
<b>BE in Civil Engineering</b> NUST, Islamabad , Pakistan	2005 - 2009

## Experience

<b>Associate Professor</b> NUST Institute of Civil Engineering	2023- Present
<b>Associate Professor</b> NUST Institute of Civil Engineering	2021 - 2023
<b>Assistant Professor</b> NUST Institute of Civil Engineering	2016 - 2021
<b>Assistant Professor</b> (Do Not Use-Duplicate)NUST Institute of Civil Engineering	2015 - 2016
<b>PhD Candidate/Researcher</b> Politecnico di Torino, Turin, Italy , Italy	2012 - 2015
<b>Lecturer</b> NUST, Pakistan , MCE Risalpur	2011 - 2012
<b>Laboratory Engineer</b> NUST Pakistan , MCE Risalpur	2009 - 2011
<b>Internee</b> Frontier Works Organization , Jamshoro, Sindh	2009 - 2009

Awards

Best Researcher Award

Best Researcher Award 2018-19

Who's Who in the World

Name appears in Marquis Who's Who in the World in Science & Engineering 2019-20.

Merit Scholarships

Awarded with Merit Scholarships on securing distinctions in each academic semester

Foreign Doctorate Scholar

Awarded with fully funded Foreign Doctorate Scholarship by Higher Education Commission.

Best Teacher Award

Best Teacher Award 2017-18

Professional Memberships

PEC

Research Projects

National Projects

Turning waste plastic into Bricks

2022

Funding Agency: PSF

Amount: PKR 9,790,000.00

Status: Approved\_inprocess

Smart nano-coatings for the extended service life of paved concrete surfaces

2019

Funding Agency: HEC

Amount: PKR 14,450,000.00

Status: Completed

International Projects

Industry Projects

National Projects

<b>SEMI-DESTRUCTIVE TESTING ON FIRE-EXPOSED PORTION OF CENTAURUS BUILDING ISLAMABAD</b> <b>Client:</b> Capital Development Authority <b>Amount:</b> PKR 1,520,000.00 <b>Status:</b> Completed	2023
<b>Provision of Consultancy Services for Feasibility Study and Rehabilitation Design of Bhakkar-DI Khan Bridge</b> <b>Client:</b> Khyber Pakhtunkhwa Highway division <b>Amount:</b> PKR 2,535,000.00 <b>Status:</b> Completed	2023
<b>Provision of Consultancy Services for Rehabilitation Design of 50,000 gallons OHWT at AFOHS (Falcon Complex) - Rawalpindi</b> <b>Client:</b> Consultancy Firm <b>Amount:</b> PKR 1,076,955.00 <b>Status:</b> Completed	2020
<b>Provision of Consultancy Services for Specialized Testing of EPS Panels</b> <b>Client:</b> Consultancy Firm <b>Amount:</b> PKR 462,000.00 <b>Status:</b> Completed	2020
<b>Consultancy Services for Testing for BAUPANELS</b> <b>Client:</b> M/S SHS Projects Pakistan <b>Amount:</b> PKR 660,000.00 <b>Status:</b> Completed	2020
<b>Expert Opinion on the Seismic Hazard Level and its Design Implications at Pakistan Gulpur Hydropower Project, District Kotli, AJK</b> <b>Client:</b> Daelim Lotte <b>Amount:</b> PKR 1,275,000.00 <b>Status:</b> Approved_inprocess	2020
<b>Structural Stability Survey of Royal Airport Services Building – New Islamabad Intl Airport</b> <b>Client:</b> Royal Airport Services <b>Amount:</b> PKR 275,000.00 <b>Status:</b> Completed	2020
<b>Material and Component-level Structural Evaluation of Baltit Fort, Hunza</b> <b>Client:</b> Asian Institute of Technology (AIT), Thailand <b>Amount:</b> PKR 1,076,500.00 <b>Status:</b> Completed	2018
<b>Evaluation of IFC Building (Awami Markaz) ? Islamabad</b> <b>Client:</b> NESPAK <b>Amount:</b> PKR 639,960.00 <b>Status:</b> Completed	2018

International Projects

<b>Non Destructive Testing of Sowan River Bridge (Kak Pul) at Islamabad Expressway</b> <b>Client:</b> Zeeruk International Pvt Ltd, Pakistan <b>Amount:</b> PKR 18,000.00 <b>Status:</b> Approved_inprocess	2018
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Research Articles

<b>Optimization in recipe design of interlocking compressed earth blocks by incorporating fine recycled concrete aggregate</b> <i>Mohamed Ramsin Rayeesulhaq Mansoor Lizan Ahamed Rao Arsalan Khushnood Hammad Anis Khan</i> <i>Construction and Building Materials</i> , Volume 416, Article Number: 135167 <b>Impact Factor:</b> 7.4   <b>Quartile:</b> 1   <b>Citations:</b> 3 <b>DOI:</b> 10.1016/j.conbuildmat.2024.135167	2024
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<p><b>Enhanced fracture and durability resilience using bio-intrigged sisal fibers in concrete</b></p> <p><i>Hassan Amjad Rao Arsalan Khushnood Farhan Ahmad</i>  <i>Journal of Building Engineering</i> , Volume 76, Article Number 107008</p> <p><b>Impact Factor:</b> 6.4   <b>Quartile:</b> 1   <b>Citations:</b> 17</p> <p><b>DOI:</b> 10.1016/j.jobbe.2023.107008</p>	2023
<p><b>Self-healing of recycled aggregate fungi concrete using Fusarium oxysporum and Trichoderma longibrachiatum</b></p> <p><i>Nangyaley Khan Hammad Anis Khan Rao Arsalan Khushnood Muhammad Faraz Bhatti Danish Ilyas Baig</i>  <i>Construction and Building Materials</i> , Volume 392, Article Number 131910</p> <p><b>Impact Factor:</b> 7.693   <b>Quartile:</b> 1   <b>Citations:</b> 11</p> <p><b>DOI:</b> doi.org/10.1016/j.conbuildmat.2023.131910</p>	2023
<p><b>Diagnosis of durability-related problems in concrete structures through comprehensive analysis and non-destructive testing: a case study</b></p> <p><i>Mati Ullah Shah Muhammad Usman Rao Arsalan Khushnood Asad Hanif</i>  <i>Journal of Structural Integrity and Maintenance</i> , Pages 1-11</p> <p><b>Impact Factor:</b> 3.00   <b>Quartile:</b> 2   <b>Citations:</b> 12</p> <p><b>DOI:</b> https://doi.org/10.1080/24705314.2023.2233812</p>	2023
<p><b>Improved anti-corrosion and mechanical aspects of reinforced cementitious composites with bio-inspired strategies</b></p> <p><i>Maria Kanwal Rao Arsalan Khushnood Abdul Ghafar Wattoo Muhammad Shahid</i>  <i>Journal of Building Engineering</i> , Volume 70, Article Number 105930</p> <p><b>Impact Factor:</b> 7.144   <b>Quartile:</b> 1   <b>Citations:</b> 7</p> <p><b>DOI:</b> https://doi.org/10.1016/j.jobbe.2023.105930</p>	2023
<p><b>Development of a new base isolation system using the concept of metamaterials</b></p> <p><i>Muhammad Nauman Masoom Qurat ul Ain Karim Irtaza Badar Rao Arsalan Khushnood Fawad Ahmed Najam Ahmer Naseer</i>  <i>Engineering Structures</i> , Volume 286, Article Number 116151</p> <p><b>Impact Factor:</b> 5.5   <b>Quartile:</b> 1   <b>Citations:</b> 11</p> <p><b>DOI:</b> 10.1016/j.engstruct.2023.116151</p>	2023
<p><b>Shielding Encapsulation to Enhance Fire Endurance of Phase Change Materials in Energy-Efficient Concrete</b></p> <p><i>Wasim Khaliq Rao Arsalan Khushnood Muhammad Rizwan Muhammad Farhan Saleem Hassan Sardar</i>  <i>Fire Technology</i> , Volume 59, Issue 4, Pages 1697-1723</p> <p><b>Impact Factor:</b> 3.4   <b>Quartile:</b> 2   <b>Citations:</b> 5</p> <p><b>DOI:</b> https://doi.org/10.1007/s10694-023-01404-9</p>	2023
<p><b>A hybrid data-driven and metaheuristic optimization approach for the compressive strength prediction of high-performance concrete</b></p> <p><i>Muhammad Imran Rao Arsalan Khushnood Muhammad Fawad</i>  <i>Case Studies in Construction Materials</i> , Volume 18, Article Number e01890</p> <p><b>Impact Factor:</b> 4.934   <b>Quartile:</b> 1   <b>Citations:</b> 33</p> <p><b>DOI:</b> 10.1016/j.cscm.2023.e01890</p>	2023
<p><b>Assessment of mechanical attributes and microstructural densification of self-healing recycled coarse aggregate concrete using various bacterial immobilizers</b></p> <p><i>Muhammad Khubaib Akhtar Maria Kanwal Rao Arsalan Khushnood Muhammad Basit Ehsan Khan</i>  <i>Journal of Building Engineering</i> , Volume 69, Article Number 106229</p> <p><b>Impact Factor:</b> 7.144   <b>Quartile:</b> 1   <b>Citations:</b> 20</p> <p><b>DOI:</b> https://doi.org/10.1016/j.jobbe.2023.106229</p>	2023
<p><b>Improved fracture response and electromagnetic interference shielding effectiveness of cementitious composites incorporating pyrolytic bagasse fibers and pine needles</b></p> <p><i>Abdullah Iftikhar Rao Arsalan Khushnood Anwar Khitab Sajjad Ahmad</i>  <i>Construction and Building Materials</i> , Volume 370, Article Number 130722</p> <p><b>Impact Factor:</b> 7.693   <b>Quartile:</b> 1   <b>Citations:</b> 6</p> <p><b>DOI:</b> https://doi.org/10.1016/j.conbuildmat.2023.130722</p>	2023
<p><b>Biomimetic robust self-healing of Bacillus Subtilis immobilized through sisal fiber for next-generation concrete infrastructure</b></p> <p><i>Hassan Amjad Rao Arsalan Khushnood Shazim Ali Memon</i>  <i>Construction and Building Materials</i> , Volume 368, Article Number 130299</p>	2023

<b>Impact Factor: 7.693   Quartile: 1   Citations: 42</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2023.130299">https://doi.org/10.1016/j.conbuildmat.2023.130299</a>	
<b>Assessment of the MICP potential and corrosion inhibition of steel bars by biofilm forming bacteria in corrosive environment</b> <i>Maria Kanwal Rao Arsalan Khushnood Fazal Adnan Abdul Ghafar Wattoo Amna Jalil</i> <i>Cement and Concrete Composites</i> , Volume 137, Article Number 104937 <b>Impact Factor: 9.930   Quartile: 1   Citations: 29</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.cemconcomp.2023.104937">https://doi.org/10.1016/j.cemconcomp.2023.104937</a>	2023
<b>Experimental evaluation of bacterial self-healing concrete embodying <i>Bacillus pumilus</i> cured in normal and accelerated modes</b> <i>Asim Sultan Nafeesa Shaheen Rao Arsalan Khushnood</i> <i>Materials and Structures</i> , Volume 56, Issue 2, Article Number 36 <b>Impact Factor: 3.8   Quartile: 2   Citations: 5</b> <b>DOI:</b> <a href="https://doi.org/10.1617/s11527-023-02129-5">https://doi.org/10.1617/s11527-023-02129-5</a>	2023
<b>Feasibility assessment of newly isolated calcifying bacterial strains in self-healing concrete</b> <i>Nafeesa Shaheen Rao Arsalan Khushnood Shazim Ali Memon Fazal Adnan</i> <i>Construction and Building Materials</i> , Volume 362, Article Number 129662 <b>Impact Factor: 7.693   Quartile: 1   Citations: 29</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2022.129662">https://doi.org/10.1016/j.conbuildmat.2022.129662</a>	2023
<b>Machine Learning-Based Predictive Modeling of Sustainable Lightweight Aggregate Concrete</b> <i>Fazal Hussain Shayan Ali Khan Rao Arsalan Khushnood Ameer Hamza Fazal Rehman</i> <i>Sustainability</i> , Volume 15(1), Article Number 641 <b>Impact Factor: 3.889   Quartile: 2   Citations: 22</b> <b>DOI:</b> <a href="https://doi.org/10.3390/su15010641">10.3390/su15010641</a>	2022
<b>ANN based predictive mimicker for mechanical and rheological properties of eco-friendly geopolymer concrete</b> <i>FazalRehman Sikandar Ali Khokhar Rao Arsalan Khushnood</i> <i>Case Studies in Construction Materials</i> , Volume 17, Article Number e01536 <b>Impact Factor: 4.934   Quartile: 1   Citations: 38</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.cscm.2022.e01536">10.1016/j.cscm.2022.e01536</a>	2022
<b>Repair of mortar cracks using <i>Bacillus pumilus</i> based bio-suspension assessed by machine learning algorithm for image processing</b> <i>Ali Raza Rao Arsalan Khushnood</i> <i>Journal of Building Engineering</i> , Volume 61, Article Number 105267 <b>Impact Factor: 7.144   Quartile: 1   Citations: 6</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.job.2022.105267">10.1016/j.job.2022.105267</a>	2022
<b>Digital image processing for precise evaluation of concrete crack repair using bio-inspired strategies</b> <i>Ali Raza Rao Arsalan Khushnood</i> <i>Construction and Building Materials</i> , Volume 350, Article Number 128863 <b>Impact Factor: 7.693   Quartile: 1   Citations: 19</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2022.128863">10.1016/j.conbuildmat.2022.128863</a>	2022
<b>Bacterial Carbonate Precipitation Using Active Metabolic Pathway to Repair Mortar Cracks</b> <i>Ali Raza Rao Arsalan Khushnood</i> <i>Materials</i> , Volume 15, Issue 19, Article Number 6616 <b>Impact Factor: 3.748   Quartile: 1   Citations: 3</b> <b>DOI:</b> <a href="https://doi.org/10.3390/ma15196616">10.3390/ma15196616</a>	2022
<b>Predictive modelling of sustainable lightweight foamed concrete using machine learning novel approach</b> <i>Junaid Ahmad Haji Sami Ullah Rao Arsalan Khushnood Furqan Farooq</i> <i>Journal of Building Engineering</i> , Volume 56, Article Number 104746 <b>Impact Factor: 7.144   Quartile: 1   Citations: 61</b> <b>DOI:</b> <a href="https://doi.org/10.1016/j.job.2022.104746">https://doi.org/10.1016/j.job.2022.104746</a>	2022
<b>Effect of Bentonite as Partial Replacement of Cement on Residual Properties of Concrete Exposed to Elevated Temperatures</b> <i>Sardar Farhan Mushtaq Ather Ali Rao Arsalan Khushnood Rana Faisal Tufail Ali Majdi Adnan Nawaz Serdar Durdyev Dumitru Doru Burduhos Nergis Jawad Ahmad</i>	2022

**Pyrolysis as an alternate to open burning of crop residue and scrap tires: Greenhouse emissions assessment and mechanical performance investigation in concrete**

2022

*Anum Khalid Rao Arsalan Khushnood Shazim Ali Memon*

*Journal of Cleaner Production* , Volume 365, Article Number 132688

**Impact Factor:** 11.1 | **Quartile:** 1 | **Citations:** 18

**DOI:** 10.1016/j.jclepro.2022.132688

**Influence of pyrolytic waste tire residue on the residual performance of high strength concrete exposed to elevated temperatures**

2022

*Hassan Sardar Rao Arsalan Khushnood Wasim Khaliq Hammad Anis Khan Muhammad Farhan Saleem*

*Journal of Building Engineering* , Volume 54, Article Number 104657

**Impact Factor:** 7.144 | **Quartile:** 1 | **Citations:** 16

**DOI:** <https://doi.org/10.1016/j.jobbe.2022.104657>

**An Experimental Investigation on Assessment of Residual Mechanical Performance of Basalt Fiber Reinforced High Strength Concrete at Elevated Temperature**

2022

*Muhammad Talal Afzal Rao Arsalan Khushnood Wisal Ahmed*

*Fire Technology* , Pages 1-24

**Impact Factor:** 3.605 | **Quartile:** 2 | **Citations:** 4

**DOI:** 10.1007/s10694-022-01279-2

**An integrated and eco-friendly approach for corrosion inhibition and microstructural densification of reinforced concrete by immobilizing *Bacillus subtilis* in pyrolytic sugarcane-bagasse**

2022

*Maria Kanwal Rao Arsalan Khushnood Muhammad Shahid Abdul Ghafar Wattoo*

*Journal of Cleaner Production* , Volume 355, Article Number 131785

**Impact Factor:** 11.1 | **Quartile:** 1 | **Citations:** 40

**DOI:** 10.1016/j.jclepro.2022.131785

**Self-healing fungi concrete using potential strains *Rhizopus oryzae* and *Trichoderma longibrachiatum***

2022

*Rao Arsalan Khushnood Ateeab Muhammad Ali Muhammad Faraz Bhatti Haris Ahmed Khan*

*Journal of Building Engineering* , Volume 50, Article Number 104155

**Impact Factor:** 5.318 | **Quartile:** 1 | **Citations:** 26

**DOI:** <https://doi.org/10.1016/j.jobbe.2022.104155>

**Prediction of Compressive Strength of Sustainable Foam Concrete Using Individual and Ensemble Machine Learning Approaches**

2022

*Haji Sami Ullah Rao Arsalan Khushnood Furqan Farooq Junaid Ahmad Nikolai Ivanovich Vatin Dina Yehia Zakaria Ewais*

*Materials* , Volume 15, Issue 9, Article Number 3166

**Impact Factor:** 3.748 | **Quartile:** 1 | **Citations:** 60

**DOI:** <https://doi.org/10.3390/ma15093166>

**Synthesis of pyrolytic carbonized bagasse to immobilize *Bacillus subtilis*; application in healing micro-cracks and fracture properties of concrete**

2022

*Rao Arslan Khushnood Maria Kanwal Abdul Ghafar Wattoo Wasim Khaliq Tauseef Shahid*

*Cement and Concrete Composites* , Volume 126, Article Number 104334

**Impact Factor:** 7.586 | **Quartile:** 1 | **Citations:** 57

**DOI:** 10.1016/j.cemconcomp.2021.104334

**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>

**Bio-inspired self-healing and self-sensing cementitious mortar using *Bacillus subtilis* immobilized on graphitic platelets**

2022

*Rao Arsalan Khushnood Ajlal Arifa Nafeesa Shaheen Ahmad Gul Zafar Talal Hassan Muhammad Akif*

*Construction and Building Materials* , Volume 316, Article Number 125818

**Impact Factor:** 6.141 | **Quartile:** 1 | **Citations:** 24

**DOI:** 10.1016/j.conbuildmat.2021.125818

<b>A Predictive Mimicker of Fracture Behavior in Fiber Reinforced Concrete Using Machine Learning</b> <i>Rao Arslan Khushnood Sikandar Ali Khokhar Touqeer Ahmed Syed Muhammad Ali Shahnawaz</i> <i>Materials</i> , Volume 14(24), Article Number 7669 <b>Impact Factor:</b> 3.623   <b>Quartile:</b> 1   <b>Citations:</b> 19 <b>DOI:</b> <a href="https://doi.org/10.3390/ma14247669">https://doi.org/10.3390/ma14247669</a>	2021
<b>Synthesis, characterization and application of graphene oxide in self consolidating cementitious systems</b> <i>Majeed Ullah Shahzada Burhan Ahmad Imtiaz Rao Arsalan Khushnood Erum Pervaiz Wisal Ahmed Asad Ullah Zarar Ali Qureshi</i> <i>Construction and Building Materials</i> , Volume 296, Article Number 123623 <b>Impact Factor:</b> 6.141   <b>Quartile:</b> 1   <b>Citations:</b> 13 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2021.123623">https://doi.org/10.1016/j.conbuildmat.2021.123623</a>	2021
<b>Mechanical and energy performance of variably cured effective microorganisms cementitious composite designed via Taguchi</b> <i>Rao Arslan Khushnood Nafeesa Shaheen Syed Ali Rizwan Thomas A.Bier</i> <i>Journal of Cleaner Production</i> , Volume 310, Article Number 127350 <b>Impact Factor:</b> 11.072   <b>Quartile:</b> 1 <b>DOI:</b> Volume 310, 10 August 2021, 127350	2021
<b>Incorporation of Wheat Straw Ash as Partial Sand Replacement for Production of Eco- Friendly Concrete</b> <i>Rao Arslan Khushnood Shazim Ali Memon Usman Javed Muhammad Haris Jong Kim</i> <i>Materials</i> , Volume 14(8), Article Number 2078 <b>Impact Factor:</b> 3.623   <b>Quartile:</b> 1 <b>DOI:</b> Materials 2021, 14(8), 2078	2021
<b>Isolation of alkaliphilic calcifying bacteria and their feasibility for enhanced CaCO<sub>3</sub> precipitation in bio-based cementitious composites</b> <i>Amna Jalil Nafeesa Shaheen Fazal Adnan Rao Arsalan Khushnood</i> <i>Microbial Biotechnology</i> , Pages 1-16 <b>Impact Factor:</b> 5.813   <b>Quartile:</b> 1   <b>Citations:</b> 39 <b>DOI:</b> <a href="https://doi.org/10.1111/1751-7915.13752">doi.org/10.1111/1751-7915.13752</a>	2021
<b>Influence of carbon nano fibers (CNF) on the performance of high strength concrete exposed to elevated temperatures</b> <i>Rao Arslan Khushnood Muhammad Talal Afzal</i> <i>Construction and Building Materials</i> , Volume 268, Article Number 121108 <b>Impact Factor:</b> 6.141   <b>Quartile:</b> 1 <b>DOI:</b> Volume 268, 25 January 2021, 121108	2021
<b>Exploring mechanical performance of hybrid MWCNT and GNMP reinforced cementitious composites</b> <i>Rao Arslan Khushnood Arslan Akbar Furqan Farooq K.M. Liew</i> <i>Construction and Building Materials</i> , Volume 267, Article Number 120721 <b>Impact Factor:</b> 6.141   <b>Quartile:</b> 1   <b>Citations:</b> 31 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2020.120721">https://doi.org/10.1016/j.conbuildmat.2020.120721</a>	2021
<b>Comparative performance of different bacteria immobilized in natural fibers for self-healing in concrete</b> <i>Momina Rauf Wasim Khaliq Rao Arsalan Khushnood Iftikhar Ahmed</i> <i>Construction and Building Materials</i> , Volume 258, Article Number 119578 <b>Impact Factor:</b> 6.141   <b>Quartile:</b> 1   <b>Citations:</b> 142 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2020.119578">https://doi.org/10.1016/j.conbuildmat.2020.119578</a>	2020
<b>Spalling sensitivity and mechanical response of an ecofriendly sawdust high strength concrete at elevated temperatures</b> <i>Ehsan Ullah Khan Rao Arsalan Khushnood Waqas Latif Baloch</i> <i>Construction and Building Materials</i> , Volume 258, Article Number 119656 <b>Impact Factor:</b> 6.141   <b>Quartile:</b> 1   <b>Citations:</b> 37 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2020.119656">https://doi.org/10.1016/j.conbuildmat.2020.119656</a>	2020
<b>Analysis of full-scale aircraft impact to reinforced concrete and steel plate reinforced concrete multiple barriers protecting nuclear power plants</b> <i>Muhammad Sadiq Wasim Khaliq Rao Arsalan Khushnood Shaukat Ali Khan Pan Rong Pan Rong Muhammad Ilyas</i> <i>Structures</i> , Volume 27, Pages 732-746 <b>Impact Factor:</b> 2.983   <b>Quartile:</b> 2   <b>Citations:</b> 10	2020

DOI: <https://doi.org/10.1016/j.istruc.2020.06.030>

**Comparative assessment of impact analysis methods applied to large commercial aircraft crash on reinforced concrete containment** 2020

Muhammad Sadiq Muhammad Ilyas Shaukat Ali Khan Pan Rong Wasim Khaliq Rao Arslan Khushnood  
PLoS ONE, Volume 15(10), Article Number e0237264

Impact Factor: 3.240 | Quartile: 2 | Citations: 4

DOI: <https://doi.org/10.1371/journal.pone.0237264>

**Influence of graphite nano/micro platelets on the residual performance of high strength concrete exposed to elevated temperature** 2020

Rao Arsalan Khushnood Waqas Latif Baloch Hafiz Waheed Iqbal Adnan Nawaz Rana Faisal Tufail  
Construction and Building Materials, Volume 253, Article Number 119029

Impact Factor: 6.141 | Quartile: 2 | Citations: 54

DOI: <https://doi.org/10.1016/j.conbuildmat.2020.119029>

**Sustainable incorporation of lime-bentonite clay composite for production of ecofriendly bricks** 2020

Usman Javed Rao Arsalan Khushnood Shazim Ali Memon Fazal E. Jalal Muhammad Saeed Zafar  
Journal of Cleaner Production, Volume 263, Article Number 121469

Impact Factor: 9.297 | Quartile: 1 | Citations: 45

DOI: <https://doi.org/10.1016/j.jclepro.2020.121469>

**Sustainable incorporation of waste granite dust as partial replacement of sand in autoclave aerated concrete** 2020

Muhammad Saeed Zafar Usman Javed Rao Arsalan Khushnood Adnan Nawaz Tayyab Zafar  
Construction and Building Materials, Volume 250, Article Number 118878

Impact Factor: 6.141 | Quartile: 2 | Citations: 73

DOI: <https://doi.org/10.1016/j.conbuildmat.2020.118878>

**Pyrolytic carbonaceous reinforcements for enhanced electromagnetic and fracture response of cementitious composites** 2020

Ayesha Mahmood Rao Arsalan Khushnood Muhammad Zeeshan  
Journal of Cleaner Production, Volume 248, Article Number 119288

Impact Factor: 9.297 | Quartile: 1 | Citations: 20

DOI: <https://doi.org/10.1016/j.jclepro.2019.119288>

**Bio-mineralized self-healing recycled aggregate concrete for sustainable infrastructure** 2020

Rao Arsalan Khushnood Zarar Ali Qureshi Nafeesa Shaheen Sikandar Ali  
Science of The Total Environment, Volume 703, Article Number 135007

Impact Factor: 7.963 | Quartile: 1 | Citations: 137

DOI: <https://doi.org/10.1016/j.scitotenv.2019.135007>

**A comparative study on performance evaluation of hybrid GNPs/CNTs in conventional and self-compacting mortar** 2020

Furqan Farooq Sardar Kashif Ur Rahman Arslan Akbar Rao Arsalan Khushnood Muhammad Faisal Javed Rayed alyousef Hisham Alabduljabbar Fahid Aslam  
Alexandria Engineering Journal, Volume 59, Issue 1, Pages 369-379

Impact Factor: 3.732 | Quartile: 1 | Citations: 41

DOI: <https://doi.org/10.1016/j.aej.2019.12.048>

**Experimental Investigation of Hybrid Carbon Nanotubes and Graphite Nanoplatelets on Rheology, Shrinkage, Mechanical, and Microstructure of SCCM** 2020

Furqan Farooq Arslan Akbar Rao Arsalan Khushnood Waqas Latif Baloch Muhammad Sardar Kashif Ur Rehman Muhammad Faisal Javed  
Materials, Volume 13(1), Article Number 230

Impact Factor: 3.623 | Quartile: 2 | Citations: 71

DOI: <https://doi.org/10.3390/ma13010230>

**Development of structural thermal energy storage concrete using paraffin intruded lightweight aggregate with nano-refined modified encapsulation paste layer** 2019

Naseem Iqbal Sher Afgan Rao Arsalan Khushnood Shazim Ali Memon  
Construction and Building Materials, Volume 228, Article Number 116768

Impact Factor: 4.419 | Quartile: 1 | Citations: 25

DOI: [10.1016/j.conbuildmat.2019.116768](https://doi.org/10.1016/j.conbuildmat.2019.116768)



<b>Structural health assessment of fire damaged building using non-destructive testing and micro-graphical forensic analysis: A case stud</b> <i>Ahmed Aseem Waqas Latif Baloch Rao Arsalan Khushnood Arslan Mushtaq</i> <i>Case Studies in Construction Materials</i> , Volume 11, Article No. e00258 <b>Impact Factor:</b> N/A   <b>Citations:</b> 46 <b>DOI:</b> <a href="https://doi.org/10.1016/j.cscm.2019.e00258">https://doi.org/10.1016/j.cscm.2019.e00258</a>	2019
<b>Synthesis and characterization of bio-immobilized nano/micro inert and reactive additives for feasibility investigation in self-healing concrete</b> <i>Nafeesa Shaheen Wasim Khaliq Habib Murtaza Rafay Iqbal Muhammad Humza Khan Rao Arsalan Khushnood</i> <i>Construction and Building Materials</i> , Volume 226, Pages 492-506 <b>Impact Factor:</b> 4.419   <b>Quartile:</b> 1   <b>Citations:</b> 100 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2019.07.202">10.1016/j.conbuildmat.2019.07.202</a>	2019
<b>Impact of pyrolytic carbonaceous nano inerts addition on fracture and electromagnetic interference shielding characteristics of cementitious composites</b> <i>Anum Khalid Rao Arsalan Khushnood Ayesha Mahmood</i> <i>Theoretical and Applied Fracture Mechanics</i> , Volume 103, Article Number UNSP 102320 <b>Impact Factor:</b> 3.021   <b>Quartile:</b> 1   <b>Citations:</b> 26 <b>DOI:</b> <a href="https://doi.org/10.1016/j.tafmec.2019.102320">10.1016/j.tafmec.2019.102320</a>	2019
<b>Effect of adding graphite nano/micro platelets on salt freeze-thaw resistance of nano-modificent concrete</b> <i>Rao Arsalan Khushnood Ahmad Nawaz</i> <i>Materials Research Express</i> , Volume 6, Issue 9, Article Number 095023 <b>Impact Factor:</b> 1.929   <b>Quartile:</b> 3   <b>Citations:</b> 7 <b>DOI:</b> <a href="https://doi.org/10.1088/2053-1591/ab2d86">10.1088/2053-1591/ab2d86</a>	2019
<b>Durability of sustainable concrete subjected to elevated temperature ? A review</b> <i>Shazim Ali Memon Syed Farasat Ali Shah Rao Arsalan Khushnood Waqas Latif Baloch</i> <i>Construction and Building Materials</i> , Volume 199, Pages 435-455 <b>Impact Factor:</b> 4.419   <b>Quartile:</b> 1   <b>Citations:</b> 134 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2018.12.040">10.1016/j.conbuildmat.2018.12.040</a>	2019
<b>Eco-friendly utilization of corncob ash as partial replacement of sand in concrete</b> <i>Shazim Ali Memon Usman Javed Rao Arsalan Khushnood</i> <i>Construction and Building Materials</i> , Volume 195, Pages 165-177 <b>Impact Factor:</b> 4.419   <b>Quartile:</b> 1   <b>Citations:</b> 81 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2018.11.063">https://doi.org/10.1016/j.conbuildmat.2018.11.063</a>	2019
<b>Bio-inspired self-healing cementitious mortar using Bacillus subtilis immobilized on nano-/micro-additives</b> <i>Rao Arsalan Khushnood siraj ud din Nafeesa Shaheen sajjad ahmad filza zarrar</i> <i>Journal of Intelligent Material Systems and Structures</i> , Volume: 30, Issue: 1, Pages 3-15 <b>Impact Factor:</b> 2.410   <b>Quartile:</b> 3   <b>Citations:</b> 43 <b>DOI:</b> <a href="https://doi.org/10.1177/1045389X18806401">10.1177/1045389X18806401</a>	2019
<b>Influence of multi-walled carbon nanotubes on the residual performance of concrete exposed to high temperatures</b> <i>Rao Arsalan Khushnood Waqas Latif Baloch Wasim Khaliq</i> <i>Construction and Building Materials</i> , Construction and Building Materials Volume: 185 Pages: 44-56 <b>Impact Factor:</b> 4.046   <b>Quartile:</b> 1   <b>Citations:</b> 128 <b>DOI:</b> <a href="https://doi.org/10.1016/j.conbuildmat.2018.07.051">10.1016/j.conbuildmat.2018.07.051</a>	2018
<b>Theoretical and experimental analysis of multifunctional high performance cement mortar matrices reinforced with varying lengths of carbon fibers</b> <i>Rao Arsalan Khushnood Shad Muhammad Sajjad Ahmad Jean-Marc Tulliani Muhammad Uzair Qamar Qareeb Ullah Shaukat Ali Khan Ahsen Maqsoom</i> <i>Materiales de Construcción</i> , Volume 68, Issue 332, Article Number e172 <b>Impact Factor:</b> 1.886   <b>Quartile:</b> 2   <b>Citations:</b> 5 <b>DOI:</b> <a href="https://doi.org/10.3989/mc.2018.09617">10.3989/mc.2018.09617</a>	2018
<b>Structural reliability analysis of superstructure of highway bridges on China-Pakistan Economic Corridor (CPEC): a case study</b> <i>Abdur Rasheed muhammad Usman Rao Arsalan Khushnood Syed Hassan Farooq Asad Hanif Noman A. Khan</i> <i>Journal of Structural Integrity and Maintenance</i> , Volume:3, Issue: 3, Pages 197-207	2018

<b>Impact Factor: 0   Citations: 9</b> <b>DOI: 10.1080/24705314.2018.1492665</b>	
<b>Eco-friendly self-compacting cement pastes incorporating wood waste as cement replacement: A feasibility study</b> <i>Rao Arsalan Khushnood Muhammad Usman Asfand Yar Khan Syed Hassan Farooq Asad Hanif Shengwen Tang Syed Ali Rizwan</i> <i>Journal of Cleaner Production</i> , Volume: 190, Pages: 679-688 <b>Impact Factor: 6.395   Quartile: 1   Citations: 83</b> <b>DOI: 10.1016/j.jclepro.2018.04.186</b>	2018
<b>Lateral Load Performance Analysis of Dhajji Dewari Using Different Infills</b> <i>Hafiz Muhammad Rashid Shaukat Ali Khan Rao Arsalan Khushnood Junaid Arsalan Ahmad</i> <i>International Journal of Strategic Engineering (IJoSE)</i> , Volume 1, No.2, Pages 1-12 <b>Impact Factor: -</b> <b>DOI: DOI:10.4018/IJoSE.2018070101</b>	2018
<b>Bioimmobilized Limestone Powder for Autonomous Healing of Cementitious Systems: A Feasibility Study</b> <i>Rao Arsalan Khushnood Nafeesa Shaheen Siraj uddin</i> <i>Advances in Materials Science and Engineering</i> , Volume 2018, Article ID 7049121, 9 pages <b>Impact Factor: 1.399   Quartile: 4   Citations: 45</b> <b>DOI: 10.1155/2018/7049121</b>	2018
<b>Flow duration curve regionalization with enhanced selection of donor basins</b> <i>Muhammad Uzair Qamar Daniele Ganora Pierluigi claps Muhammad Azmat Muhammad Adnan Shahid Rao Arsalan Khushnood</i> <i>Journal of Applied Water Engineering and Research</i> , Volume: 6, Issue: 1, Pages: 70-84 <b>Impact Factor: 0   Citations: 6</b> <b>DOI: 10.1080/23249676.2016.1196621</b>	2018
<b>Effect of Elevated Temperatures on Mechanical Performance of Normal and Lightweight Concretes Reinforced with Carbon Nanotubes</b> <i>Waqas Latif Baloch Rao Arsalan Khushnood Shazim Ali Memon Wisal Ahmed Sajjad Ahmad</i> <i>Fire Technology</i> , Volume 54, Pages 1331-1367 <b>Impact Factor: 1.420   Quartile: 3   Citations: 48</b> <b>DOI: 10.1007/s10694-018-0733-z</b>	2018
<b>Effective use of sawdust for the production of eco-friendly and thermal-energy efficient normal weight and lightweight concretes with tailored fracture properties</b> <i>Wisal Ahmed Rao Arsalan Khushnood Shazim Ali Memon Sajjad Ahmad Waqas Latif Baloch Muhammad Usman</i> <i>Journal of Cleaner Production</i> , Volume: 184 Pages: 1016-1027 <b>Impact Factor: 6.395   Quartile: 1   Citations: 81</b> <b>DOI: 10.1016/j.jclepro.2018.03.009</b>	2018
<b>High-Temperature Residual Strength and Microstructure in Air-Entrained High-Strength Concrete</b> <i>Rao Arsalan Khushnood Farhan Waheed Wasim Khaliq</i> <i>ACI Materials Journal</i> , Volume 115, Issue 3, Pages 425-435 <b>Impact Factor: 1.453   Quartile: 3   Citations: 16</b> <b>DOI: 10.14359/51702037</b>	2018
<b>Ensembling Downscaling Techniques and Multiple GCMs to Improve Climate Change Predictions in Cryosphere Scarcely-Gauged Catchment</b> <i>Muhammad Azmat Muhammad Uzair Qamar Shakil Ahmad Muhammad Adnan Shahid Ejaz Hussain Sajjad Ahmad Rao Arsalan Khushnood</i> <i>Water Resources Management</i> , Volume 32, Pages 3155–3174 <b>Impact Factor: 2.987   Quartile: 1   Citations: 13</b> <b>DOI: 10.1007/s11269-018-1982-9</b>	2018
<b>Applications of Nano Technology in Civil Engineering: A Review</b> <i>Arslan Shamim Sajjad Ahmed Anwar Khitab Waqas Anwar Muhammad Usman Rao Arsalan Khushnood</i> <i>International Journal of Strategic Engineering</i> , Vol.01, No.1, Pages 48-64 <b>Impact Factor: 0</b> <b>DOI: 10.4018/IJoSE.2018010104</b>	2018
<b>Synthesis and Applications of Nano Titania Particles: A Review</b> <i>A. Khitab S. Ahmad M.J. Munir S.M.S. Kazmi T. Arshad Rao Arsalan Khushnood</i> <i>Reviews on Advanced Materials Science</i> , Volume: 53, Issue:1, Pages 90-105	2018

<b>Impact Factor:</b> 1.828   <b>Quartile:</b> 3 <b>DOI:</b> NA	
<b>Fracture toughness and failure mechanism of high performance concrete incorporating carbon nanotubes</b> <i>Anwar Khitab Sajjad Ahmad Rao Arsalan Khushnood Syed Ali Rizwan Giuseppe Andrea Ferro Luciana Restuccia Mustajab Ali Imran Mehmood Frattura ed Integrità Strutturale</i> , Vol. 42, Pages 238-248 <b>Impact Factor:</b> -   <b>Citations:</b> 13 <b>DOI:</b> DOI:10.3221/IGF-ESIS.42.26	2017
<b>A Sustainable Graphene Based Cement Composite</b> <i>Sardar Kashif Ur Rehman Zainah Ibrahim Shazim Ali Memon Muhammad Faisal Javed Rao Arsalan Khushnood Sustainability</i> , Volume 9, Issue 7, Article Number 1229 <b>Impact Factor:</b> 2.075   <b>Quartile:</b> 2   <b>Citations:</b> 68 <b>DOI:</b> doi:10.3390/su9071229	2017
<b>Elaboration and characterization of novel humidity sensor based on micro-carbonized bamboo particles</b> <i>Ahmed S. Afify Sajjad Ahmad Rao Arsalan Khushnood Pravin Jagdale Jean-Marc Tulliani Sensors and Actuators B: Chemical</i> , Volume 239, Pages 1251-1256 <b>Impact Factor:</b> 5.667   <b>Quartile:</b> 1   <b>Citations:</b> 51 <b>DOI:</b> http://dx.doi.org/10.1016/j.snb.2016.09.130	2017
<b>Model swapping: A comparative performance signature for the prediction of flow duration curves in ungauged basins</b> <i>Muhammad UzairQamar Muhammad Azmat Muhammad Jehanzeb Masud Cheema Muhammad Adnan Shahid Rao Arsalan Khushnood Sajjad Ahmad Journal of Hydrology</i> , Volume 541, Pages 1030-1041 <b>Impact Factor:</b> 3.483   <b>Quartile:</b> 1   <b>Citations:</b> 13 <b>DOI:</b> http://dx.doi.org/10.1016/j.jhydrol.2016.08.012	2016
<b>Carbonized nano/microparticles for enhanced mechanical properties and electromagnetic interference shielding of cementitious materials</b> <i>Rao Arsalan Khushnood Sajjad Ahmad Luciana Restuccia Consuelo Spoto Pravin Jagdale Jean-Marc Tulliani Giuseppe Andrea Ferro Frontiers of Structural and Civil Engineering</i> , Volume 10, Pages 209–213 <b>Impact Factor:</b> -   <b>Citations:</b> 107 <b>DOI:</b> DOI:10.1007/s11709-016-0330-5	2016
<b>Modified fracture properties of cement composites with nano/micro carbonized bagasse fibers</b> <i>Rao Arsalan Khushnood Sajjad Ahmad Giuseppe Andrea Ferro Luciana Restuccia Jean Marc Tulliani Pravin Jagdale Fracture and Structural Integrity</i> , Volume 34, Pages 1140-1147 <b>Impact Factor:</b> -   <b>Citations:</b> 26 <b>DOI:</b> DOI:10.3221/IGF-ESIS.34.59	2015
<b>Improvement in electromagnetic interference shielding effectiveness of cement composites using carbonaceous nano/micro inerts</b> <i>Rao Arsalan Khushnood Sajjad Ahmad Patrizia Savi Jean-Marc Tulliani Mauro Giorcelli Giuseppe Andrea Ferro Construction and Building Materials</i> , Volume 85, Pages 208-216 <b>Impact Factor:</b> 2.421   <b>Quartile:</b> 1   <b>Citations:</b> 119 <b>DOI:</b> doi:10.1016/j.conbuildmat.2015.03.069	2015
<b>Paradigms for Employing Interactive Computing Tools and Graphical User Interfaces (GUIs) in Structural Engineering Problems</b> <i>Fawad Ahmed Najam Rao Arsalan Khushnood Syed Ali Rizwan IACSIT International Journal of Engineering and Technology</i> , Volume 8, No. 1, Pages 25-315 <b>Impact Factor:</b> - <b>DOI:</b> -	2015

## Conference Proceedings

- Bio-Inspired Delf-Healing and Corrosion Resistant Concrete** 2022  
*Maria Kanwal Rao Arsalan Khushnood Abdul Ghaffar*  
*CUKUROVA 9th International Scientific Researches Conference*, res.country(224,)  
**Citations:** N/A  
**DOI:** 978-625-8246-29-2
- Retrofitting of damaged reinforced concrete bridge structure** 2019  
*Muhammad Fawad K Kalman Rao Arsalan Khushnood Muhammad Usman*  
*25th International Conference on Fracture and Structural Integrity*, res.country(109,)  
**Citations:** N/A  
**DOI:** 10.1016/j.prostr.2019.08.153
- Improving the mechanical properties of cementitious composites with graphite nano/micro platelets addition** 2018  
*Anum Khalid Rao Arsalan Khushnood Samar Saleem Shah Zaib Farooq Nafeesa Shaheen*  
*14th International Conference on Concrete Engineering and Technology (CONCET 2018)*, res.country(157,)  
**Citations:** N/A  
**DOI:** 10.1088/1757-899X/431/6/062005
- Influence of bio-immobilized lime stone powder on self-healing behaviour of cementitious composites** 2018  
*Nafeesa Shaheen Rao Arsalan Khushnood Siraj ud din Anum Khalid*  
*14th International Conference on Concrete Engineering and Technology (CONCET 2018)*, res.country(157,)  
**Citations:** N/A  
**DOI:** 10.1088/1757-899X/431/6/062002
- Synthesis, characterization and applications of nano/micro carbonaceous inerts** 2018  
*Anum Khalid Rao Arsalan Khushnood Ayesha Mahmood Giuseppe Andrea Ferro Sajjad Ahmad*  
*IGF Workshop "Fracture and Structural Integrity"*, res.country(109,)  
**Citations:** N/A  
**DOI:** 10.1016/j.prostr.2018.06.019

## Book Chapters

- Application of biosurfactants in juice industry** 2022  
*Abdul Ghafar Wattoo Sara Yaseen Maria Kanwal Syed Mudassir Mehboob Zaidi Muhammad Alamgeer Danish Saeed Faizan Shabir Rao Arsalan Khushnood Zhenlun Song Kamran Ikram Saeed Ahmad Buzdar*  
In: *Book on Applications of Next Generation Biosurfactants in the Food Sector*, Chapter 25, Pages 527-536  
**Citations:** N/A  
**DOI:** 10.1016/B978-0-12-824283-4.00013-7
- Advancements and challenges in production of biosurfactants** 2022  
*Maria Kanwal Rao Arsalan Khushnood Abdul Ghafar Wattoo Atif Liaqat Rabia Iqbal Zhenlun Song*  
In: *Book on Applications of Next Generation Biosurfactants in the Food Sector*, Chapter 12, Pages 239-259  
**Citations:** 3  
**DOI:** 10.1016/B978-0-12-824283-4.00019-8
- Biological Corrosion Inhibitors for Concrete** 2021  
*Rao Arslan Khushnood Maria Kanwal R. Bagheri A.G. Wattoo M.I. Irshad Z. Song*  
In: *Book on Theory and Applications of Green Corrosion Inhibitors*, Volume 86, Chapter 7, Pages 183-203  
**Citations:** N/A  
**DOI:** <http://dx.doi.org/10.21741/9781644901052-7>
- Fire performance of concrete containing nano-fibers and graphite nano-particles** 2019  
*Wisal Ahmed Waqas Latif Baloch Rao Arsalan Khushnood*  
In: *Smart Nanoconcretes and Cement-Based Materials*, Part II: Applications, Chapter 11  
**Citations:** N/A  
**DOI:** 10.1016/B978-0-12-817854-6.00011-8

## Editorial Activities

- Materials** 2022  
Reviewed Papers for Journals

<b>Impact Factor:</b> 3.748	
<b>Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.748	2022
<b>Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.748	2022
<b>Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.748	2022
<b>Journal of Building Engineering</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.144	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.748	2022
<b>Journal of Building Engineering</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.144	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Journal of Building Engineering</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.144	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Journal of Building Engineering</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.144	2022
<b>Construction and Building Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.693	2022
<b>Buildings</b> Edited Journal Issue / Proceeding / Book <b>Impact Factor:</b> 3.324	2022
<b>Journal of Building Engineering</b> Reviewed Papers for Journals <b>Impact Factor:</b> 7.144	2021
<b>Construction and Building Materials</b>	2021

Reviewed Papers for Journals	
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<b>Impact Factor: 4.05</b>	
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<b>Impact Factor: 5.65</b>	
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<b>Impact Factor: 3.45</b>	
Reviewed Papers for Journals	2018
<b>Impact Factor: 1.372</b>	
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<b>Impact Factor: 3.45</b>	
Reviewed Papers for Journals	2017
<b>Impact Factor: 3.45</b>	

Intellectual Property

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Copyrights

Patents

Development of carbon dioxide inhaling bio heal-able interlocking

Status: Filed

2021

Industrial Designs

Carbon dioxide inhaling Bio heal-able interlocking compressed earth bricks (class-04)

Status: Filed

2021

Trademarks