Fawad Ahmed Najam

Assistant Professor

NUST Institute of Civil Engineering

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About

Dr. Fawad Ahmed Najam is working as Assistant Professor in the NUST Institute of Civil Engineering. Dr. Fawad Ahmed Najam has a PhD in Structural Engineering. Dr. Fawad Ahmed Najam has published 24 research articles & conference papers having a citation count of 247, carried out 6 projects and filed 0 intellectual property.

Qualifications

PhD in Structural Engineering 2011 - 2017
Asian Institute of Technology , Thailand

MS in Structural Engineering 2009 - 2011
NUST, Islamabad , Pakistan

BS in Civil Engineering 2005 - 2009
UET Taxila , Pakistan

Experience

Assistant Professor 2022- Present
NUST Institute of Civil Engineering

Assistant Professor 2020 - 2020
NUST Institute of Civil Engineering

Assistant Professor 2017 - 2017
NUST Institute of Civil Engineering

Assistant Professor 2017 - 2022
NUST Institute of Civil Engineering

Lab Engineer 2010 - 2017
NUST Institute of Civil Engineering

Awards

Honors and Awards

1. Represented Pakistan in 46th International Mathematical Olympiad (2005) in Merida, Yucatan, Mexico 2. Won Higher Education Commission (HEC) Scholarship for PhD studies at Asian Institute of Technology (AIT), Thailand. 4.00/4.00 CGPA. 3. Won NUST Indigenous Scholarship for Masters Degree Program at NUST, Islamabad, Pakistan 4. Selected in top 6 students from all over Pakistan after competing in a series of Camps held in School of Mathematical Sciences (SMS), Government College University (GCU), Lahore, Pakistan 5. Got top position in Design Phase of Humanitarian Shelter Design Contest (HSSDC) organized by American Society of Mechanical Engineers (ASME), in 2008 6. Won P.O.F Merit Scholarship twice for Matriculation (2001-2003) and FSc. (2003-2005) 7. Won University Merit Scholarship thrice in BSc. Civil Engineering (2005-2009) 8. Selected first in top 15 Students from all over Pakistan in Aptitude tests of STEM Careers Project held by Higher Education Commission (HEC) and Pakistan Atomic Energy Commission (PAEC) 9. Have the Honor of Attending the 1st meeting of Nobel Laureates with Pakistani Students/Young Scholars in Islamabad (March 27-31, 2006)

Professional Memberships

PEC Since 2009

Research Projects

National Projects

Research-based Habitat Planning for a Resilient Ishkoman Valley through Modelling and Assessment of Remote Sensing and In-valley Hazards and Glacial Water Variability under Climate Change 2022

Funding Agency: Agha Khan Planning and Building Service Pakistan (AKPBS,P)
Amount: PKR 7,100,000.00
Status: Approved_inprocess

Performance-Based Seismic Evaluation of Existing High-Rise Buildings in Pakistan 2018

Funding Agency: HEC
Amount: PKR 500,000.00
Status: Completed

Performance based seismic evaluation of existing high-rise buildings in pakistan 2018

Funding Agency: HEC
Amount: PKR 450,500.00
Status: Completed

International Projects

Industry Projects

National Projects

Provision of Consultancy Services for Rehabilitation Design of 50,000 gallons OHWT at AFOHS (Falcon Complex) - Rawalpindi 2020

Client: Consultancy Firm
Amount: PKR 1,076,955.00
Status: Completed

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

Material and Component-level Structural Evaluation of Baltit Fort, Hunza 2018

Client: Asian Institute of Technology (AIT), Thailand
Amount: PKR 1,076,500.00
Status: Completed

International Projects

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

Advancing seismic resilience: Performance-based assessment of mid-rise and high-rise engineered cementitious composite (ECC) Buildings 2024

Umair Jalil Malik Fawad Ahmed Najam Sikandar Ali Khokhar Fazal Rehman Raja Dilawar Riaz
Case Studies in Construction Materials , Volume 20, Article Number e02732

Impact Factor: 6.2 | **Quartile:** 2 | **Citations:** 13
DOI: https://doi.org/10.1016/j.cscm.2023.e02732

Seismic evaluation of non-seismically detailed RC buildings in Pakistan: performance and damage accumulation under repeated earthquakes. 2024

Saima Munir Fawad Ahmed Najam Asad ur Rahman Umair Jalil Malik Irfan Ahmad Rana Ather Ali
Bulletin of Earthquake Engineering, Volume: 22, Pages 4547–4579,

Impact Factor: 4.600 | **Quartile:** 1
DOI: https://doi.org/10.1007/s10518-024-01935-8

ANN-based predictive mimicker for the constitutive model of engineered cementitious composites (ECC) 2024

Umair Jalil Malik Sikandar Ali Khokhar Muhammad Hammad Rao Arsalan Khushnood Fawad Ahmed Najam Faizan Ali Muhammad Shahid
Construction and Building Materials , Volume 420, Article Number: 135530
Impact Factor: 7.4 | **Quartile:** 1 | **Citations:** 8
DOI: 10.1016/j.conbuildmat.2024.135530

A novel framework to assess multidimensional disaster resilience of children: From conceptualization to quantification 2023

Irfan Ahmad Rana Ihtisham Ul Haq Khan Niazi Zainab Khalid Adnan Nawaz Fawad Ahmed Najam
International Journal of Disaster Risk Reduction, Volume:96, Article Number: 103914
Impact Factor: 4.2 | **Quartile:** 1 | **Citations:** 4
DOI: 10.1016/j.ijdrr.2023.103914

Development of a new base isolation system using the concept of metamaterials 2023

Muhammad Nauman Masoom Qurat ul Ain Karim Irtaza Badar Rao Arsalan Khushnood Fawad Ahmed Najam Ahmer Naseer
Engineering Structures , Volume 286, Article Number 116151
Impact Factor: 5.5 | **Quartile:** 1 | **Citations:** 11
DOI: 10.1016/j.engstruct.2023.116151

Evacuation decision making and risk perception: flooded rural communities in Pakistan 2023

Abdul Muqeet Irfan Ahmad Rana Rida Hameed Lodhi Fawad Ahmed Najam Ather Ali
Environmental Hazards , Vol:23, No. 1, Pages:54-71
Impact Factor: 4.0 | **Quartile:** 2 | **Citations:** 9
DOI: 10.1080/17477891.2023.2220947

Multidimensional poverty vis-à-vis climate change vulnerability: Empirical evidence from flood-prone rural communities of Charsadda and Nowshera districts in Pakistan 2023

Irfan Ahmad Rana Muhammad Mubashir Khan Rida Hameed Lodhi Shahbaz Adnan Nawaz Fawad Ahmed Najam
World Development Sustainability , Volume 2, Article Number 100064
Impact Factor: N/A | **Citations:** 14
DOI: https://doi.org/10.1016/j.wds.2023.100064

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

Psychological resilience of children in a multi-hazard environment: An index-based approach 2022

Ihtisham Ul Haq Khan Niazi Irfan Ahmad Rana Hafiz Syed Hamid Arshad Rida Hameed Lodhi Fawad Ahmed Najam Ali Jamshed
International Journal of Disaster Risk Reduction, Volume 83, Article Number 103397
Impact Factor: 4.842 | **Quartile:** 1 | **Citations:** 10
DOI: 10.1016/j.ijdrr.2022.103397

Quantifying the role of social capital for enhancing urban resilience against climate crisis: Empirical evidence from formal and informal settlements of Pakistan 2022

Maheen Shahid Irfan Ahmad Rana Ali Jamshed Fawad Ahmed Najam Ather Ali Ayman Aslam
Cities , Volume 130, Article Number 103851
Impact Factor: 6.077 | **Quartile:** 1 | **Citations:** 19
DOI: 10.1016/j.cities.2022.103851

A localized index-based approach to assess heatwave vulnerability and climate change adaptation strategies: A case study of formal and informal settlements of Lahore, Pakistan 2022

Irfan Ahmad Rana Laila Sikander Zainab Khalid Adnan Nawaz Fawad Ahmed Najam Sibghat Ullah Khan Ayman Aslam
Environmental Impact Assessment Review, Volume 96, Article Number 106820
Impact Factor: 4.549 | **Quartile:** 2 | **Citations:** 33
DOI: 10.1016/j.eiar.2022.106820

Flood risk perception and communication: The role of hazard proximity 2022

Asher Ali Irfan Ahmad Rana Ather Ali Fawad Ahmed Najam
Journal of Environmental Management , Volume 316, Article Number 115309
Impact Factor: 6.789 | **Quartile:** 1 | **Citations:** 32

DOI: 10.1016/j.jenvman.2022.115309

The impact of risk perception on earthquake preparedness: An empirical study from Rawalakot, Pakistan 2022

Usama Bin Naseem Kiani Fawad Ahmed Najam Irfan Ahmad Rana

International Journal of Disaster Risk Reduction, Volume 76, Article Number 102989

Impact Factor: 4.320 | **Quartile:** 1 | **Citations:** 19

DOI: 10.1016/j.ijdrr.2022.102989

An Updated Earthquake Catalogue and Source Model for Seismic Hazard Analysis of Pakistan 2021

Asad ur Rahman Atif Rasheed Fawad Ahmed Najam Saeed Zaman Irfan Ahmad Rana Faheem Aslam Sibghat Ullah Khan

Arabian Journal for Science and Engineering, Pages 1-23

Impact Factor: 2.807 | **Quartile:** 2 | **Citations:** 8

DOI: https://doi.org/10.1007/s13369-021-05439-4

An updated probabilistic seismic hazard assessment (PSHA) for Pakistan 2021

Asad ur Rahman Fawad Ahmed Najam Saeed Zaman Atif Rasheed Irfan Ahmad Rana

Bulletin of Earthquake Engineering , Pages 1-38

Impact Factor: 4.556 | **Quartile:** 1 | **Citations:** 17

DOI: https://doi.org/10.1007/s10518-021-01054-8

Assessing school safety against natural and human-made hazards: A case study of Gilgit city, Pakistan 2020

Awais All Khan Irfan Ahmad Rana Fawad Ahmed Najam

Journal of Geography and Social Sciences, Volume 2(2), Pages 133-147

Impact Factor: 0

DOI: N.A.

New Nonlinear Modal Decomposition Method for Seismic Analysis of Tall RC Core Wall Buildings 2020

Tahir Mehmood Muhammad Irshad Qureshi Fawad Ahmed Najam Ahsen Maqsoom Adnan Nawaz Hammad Salahuddin Rana Faisal Tufail

Iranian Journal of Science and Technology, Transactions of Civil Engineering, Volume 44, Pages 163-177

Impact Factor: 1.465 | **Quartile:** 4

DOI: https://doi.org/10.1007/s40996-020-00376-y

Significance of Soil Structure Interaction in Seismic Response of Buildings 2019

Fawad Ahmed Najam Naveed Anwar Abinayaa Uthayakumar

NED University Journal of Research, Volume 1

Impact Factor: 0

DOI: -

Prediction of Nonlinear Seismic Demands of High-rise Rocking Wall Structures using a Simplified Modal Pushover Analysis Procedure 2018

Fawad Ahmed Najam Muhammad Irshad Qureshi Pennung Warnitchai Tahir Mehmood

Structural Design of Tall and Special Buildings, Structural Design of Tall and Special Buildings Volume: 27 Issue: 15

Impact Factor: 2.204 | **Quartile:** 2 | **Citations:** 21

DOI: 10.1002/tal.1506

Simplified Seismic Demand Estimation for Existing Tall Buildings in Thailand 2018

Fawad Ahmed Najam Pennung Warnitchai Muhammad Irshad Qureshi Tahir Mehmood

PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS-STRUCTURES AND BUILDINGS, NULL

Impact Factor: 0.877 | **Quartile:** 4 | **Citations:** 3

DOI: 10.1680/jstbu.16.00088

A modified response spectrum analysis procedure to determine nonlinear seismic demands of high-rise buildings with shear walls 2018

Fawad Ahmed Najam Pennung Warnitchai

Structural Design of Tall and Special Buildings, Volume 27, Issue 1, Article Number e1409

Impact Factor: 2.204 | **Quartile:** 2 | **Citations:** 10

DOI: 10.1002/tal.1409

Paradigms for Employing Interactive Computing Tools and Graphical User Interfaces (GUIs) in Structural Engineering Problems 2015

Fawad Ahmed Najam Rao Arsalan Khushnood Syed Ali Rizwan

IACSIT International Journal of Engineering and Technology, Volume 8, No. 1, Pages 25-315

Impact Factor: -

DOI: -

Conference Proceedings

Seismic base isolation of high-rise RC shear wall building using lead core rubber bearings 2020

Nirmala Suwal Pennung Warnitchai Fawad Ahmed Najam

New Zealand Society for Earthquake Engineering Annual Technical Conference, res.country(170,)

Citations: N/A

DOI: https://www.nzsee.org.nz/wp-content/uploads/2020/06/NZSEE-2020-List-of-Papers_for-website.pdf