

# ALEEM ULLAH

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Homepage: <https://aullah9.github.io/>

Google Scholar ◇ Github ◇ LinkedIn

## EDUCATION

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### University of Nebraska-Lincoln (UNL)

August 2027 (expected)

PhD in Architectural Engineering (Structures)

GPA: 3.69/4.0

*Related courses: Prestressed Concrete, Structural Dynamics, Infrastructure Resilience.*

### Korea Advanced Institute of Science and Technology (KAIST)

February 2016

M.S. in Structural Engineering

GPA: 3.67/4.3

*Related courses: Finite Element Analysis, Experimental Vibration Analysis, Probability and Statistics.*

### National University of Science and Technology (NUST)

August 2012

B.E. in Civil Engineering

GPA: 3.76/4.0

*Related courses: RC Design, Steel Design.*

## RESEARCH INTERESTS

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I am interested in Transportation Resilience against Floods, Structural Health Monitoring-Bridges (SHM) and Digital Twins-Bridges.

## RESEARCH EXPERIENCE

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### Integrated Bridge, Transportation Network, and Community Resilience Framework for Nebraska

Jul 2024 - Present

*Supervisors: Dr. Milad Roohi, and Prof. Christine Wittich*

UNL

- Proposed to form a resilience framework and study 2019 Floods in Nebraska as a case study and see how future similar floods may impact the transportation network in Nebraska

### Round Robin Challenge [1]

Dec 2023 - Feb 2024

*Supervisors: Dr. Milad Roohi*

UNL

- Participated in the Round Robin Challenge for IMAC 2024, and studied the effect of model selection on the uncertainty in the response estimation using Kalman Filtering technique

### Graduate Research Assistant [2][3][4][5][6]

Dec 2023 - Feb 2024

*Supervisors: Dr. Jung-Wuk Hong*

KAIST

- MS Thesis: Numerical analysis of beam-column assembly under column loss

## TEACHING EXPERIENCE

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### MECH223:Engineering Statics

Fall 2023

*Role: Teaching Assistant*

UNL

- Taught a recitation class and prepared and marked the group and individual homework.

### CIVE441: Steel Design I

Spring 2024

*Role: Teaching Assitant*

UNL

- Marked homework and projects.

## PUBLICATIONS

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- [1] A. Ullah and M. Roohi, "Model class and parameter selection for bayesian filtering with application to a modular active spring-damper system: Round-robin challenge," in *Model Validation and Uncertainty Quantification, Vol. 3*, R. Platz, G. Flynn, K. Neal, and S. Ouellette, Eds., ser. Conference Proceedings of the Society for Experimental Mechanics Series, Presented at IMAC 2024, Springer Nature Switzerland, Cham, 2025. DOI: 10.1007/978-3-031-68893-5\_21.
- [2] **Aleem Ullah**, F. Ahmad, and J.-W. Hong, "Review of analytical and empirical estimations for incident blast pressure," *Journal of Korea Society of Civil Engineers*, 2016.
- [3] **Aleem Ullah** and J. W. Hong, "Review of analytical and empirical estimations of blast effect," *International Conference on Computational and Experimental Engineering and Sciences, Changwon, South Korea*, 2014.
- [4] **Aleem Ullah** and J. W. Hong, "Validation of ls- dyna lbe with analytical and empirical estimations of incident blast pressure," *The Twenty-seventh KKHTCNN Symposium on Civil Engineering, Shanghai, China*, 2014.
- [5] **Aleem Ullah**, J. Jaewook, and J. W. Hong, "Rc beam-column joint models for progressive collapse simulation," *KIBSE Annual Meeting and Conference, Goyang, South Korea*, 2014.
- [6] D. Bakhtiyarov, **Aleem Ullah**, and J. W. Hong, "Collapse analysis of reinforced concrete beam-column structure," *COSEIK Annual Conference, Daejeon, South Korea*, 2016.

## FIELD EXPERIENCE

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### **QD-SBG Construction**

2022 - 2023

*Role: Design Coordinator*

- Coordinated multidisciplinary design processes, ensuring alignment between architectural, structural, and MEP teams to meet project requirements and deadlines.
- **Projects:** Lusail Huzoom - A Smart City in Qatar

### **Redco Internaitonal**

2016 - 2021

*Role: Structural Engineer*

- Coordinated with consultants, MEP, and architectural teams to finalize structural designs, resolve clashes, and ensure design completion, including structural design of precast elements (beams, columns, hollow cores) and steel supports for facade structures. Led production and updates of shop, fabrication, and as-built drawings, managed design change requests, and conducted design review meetings with consultants and contractors to ensure alignment on project requirements.
- **Projects:** Qatar University and Lusail - RLR JV Projects, Qatar Rail - Western Green Spine Pedestrian Underpass at Education City Station, Station Area Works for 35 Metro Stations, Lusail Bus Depot, MOTC - Bus Depot Projects (Lusail, Al Rayyan, Industrial Area Bus Depot)

### **EGC-SMEC International Lahore**

2016

*Role: Jr. Structural Engineer*

- Worked with a supervision consultants team and performed design checks under the supervision of senior engineers.
- **Projects:** Trimmu Barage Expansion Project

### **National Logistic Cell**

2012 - 2013

*Role: Jr. Civil Engineer*

- Developed macro-level planning and monitoring systems, baseline plans, and technical reports for effective project execution and cost analysis.

- **Projects:** Mandra and Sohawa Chakwal Roads Project

## ACHIEVEMENTS

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University of Nebraska-Lincoln Graduate Scholarship	2023 - 2027
KAIST Graduate Scholarship	2013 - 2016
NUST Performance Scholarship	2008 - 2012
B.E. Graduation with Honors, ranked 4th/180 Students	2012
Ranked among top 2% in a Country-wide Kangaroo Math contest	2007
Runner up in a Bridge Building Competition arranged by NUST Science Society	2010
Ranked 1st in Secondary School Board Examination across division	2006
Ranked 4th in Eighth Grade Board Examination in whole District	2004

## SKILLS/HOBBIES

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<b>Programming Languages</b>	Python, R, MATLAB
<b>FEM</b>	LS DYNA, LS Prepost
<b>CAD</b>	AutoCAD, Revit, Navisworks, Rhino/Grasshopper
<b>Analysis/Design</b>	CSI SAP2000, CSI ETABS, CSI SAFE,
<b>Member Design</b>	CSI Col, Limcon, Tekla Tedds, Prokon, Concise Beam
<b>Office</b>	Word, Excel, Powerpoint, Outlook
<b>Latex</b>	Overleaf
<b>Flood modeling</b>	HEC-RAS, FHWA Hydraulic Toolbox
<b>Reference</b>	Zotero, Papers, Mendeley
<b>Hobbies</b>	Hiking

## VOLUNTEER EXPERIENCE

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Sustainability Volunteer at FIFA Arab Cup 2021, Qatar	Dec 2021
Raised Funds for Flood Victims	Fall 2010
Involved in organizing the Sports Gala for SOS Villages across Pakistan	2012
NUST Community Service Club (NCSC)	2010 - 2012
KAIST International Students Association (KISA)	2013 - 2015
Pakistani Students Association - KAIST (PSA)	2013 - 2015

## PROFESSIONAL MEMBERSHIPS

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MMUP Qatar	2018 -
Pakistan Engineering Council	2012 -
S.M. ASCE	2023 -
Society of Experimental Mechanics	2024 -

## REFERENCES

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Muhammad Usman  
NUST, Pakistan  
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Jung, Hyung-Jo  
KAIST, South Korea  
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Islamic University of Madinah, Saudi Arabia  
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