



NANGYALEY KHAN

Student

School of Civil Engineering

University of Leeds

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Passport No: WF4145052

Date of Birth: April 14, 1997

Country of Birth: Pakistan

LinkedIn:

<https://www.linkedin.com/in/nangyaleykhan5073485/>

Google scholar:

<https://scholar.google.com/citations?hl=en&user=KU7KBSUAAAAJ>

LICENSE / AFFILIATION

Pakistan Engineering Council (2019)

Registered Engineer

Registration No. CIVIL/55194

INTERESTS

Green concrete | Bio cementation | Bio-based sustainable concrete | Bio-based self-healing concrete | Advanced material testing and characterization | Nanomaterials | Bacteria/fungi cultivation and treatments | Bio-calcium cementitious materials | Construction waste recycling.

PROFESSIONAL EXPERTISE

- Advanced engineering materials.
- Concrete fatigue analysis, durability, and reliability of structures.
- Durability of construction materials
- Corrosion of reinforcing steels.
- Civil infrastructure systems.
- Advanced materials testing and characterization (SEM-EDX, TGA, XRD, XRF, FTIR etc.)
- Fungi/Bacteria cultivation, treatment, and assessments.
- Excellent knowledge about construction waste management/recycling and Bio-concrete.
- Fungi/Bacteria base self-healing concrete.
- Lifetime and cost assessment of sustainable infrastructure.
- Quality Control Analysis.
- Problem solving and complex data analysis.
- Advanced modeling and simulation.
- Professional writing for research journals.

COMPUTER SKILLS

MS Word | MS Excel | MS PowerPoint | MATLAB | Visual Studio | CSI ETABS | SAP 2000 | AutoCAD | Revit | Abaqus/CAE

LANGUAGES

English Speaking/Writing/Reading
Urdu Speaking/Writing/Reading
Pashto Speaking/Writing/Reading

EDUCATION

Master of Science in Structure Engineering (2020-2023)

National University of Sciences and Technology (NUST), Islamabad, Pakistan

School of Civil and Environmental Engineering (SCEE)

NUST Institute of Civil Engineering (NICE)

(CGPA – 3.30/4.00, 1st Division)

Bachelor of Science in Civil Engineering (2015-2019)

University of Engineering and Technology Peshawar, Pakistan

Department of Civil Engineering

(CGPA – 3.10/4.00, 1st Division)

Higher Secondary Education: Pre-Engineering (2013-2015)

University College for Boys, University of Peshawar, Peshawar, Pakistan

(Marks – 817/1100, 1st Division)

Secondary Education: Science (2011-2013)

Islamia Collegiate School, Islamia College University, Peshawar, Pakistan

(Marks – 878/1050, 1st Division)

WORK EXPERIENCE

University of Engineering and Technology, Peshawar, Pakistan

Civil Engineering Department

Position: Visiting Lecturer (Structure Engineering)

(Sep 20, 2023 to present)

National University of Sciences and Technology (NUST), Islamabad, Pakistan

School of Civil and Environmental Engineering (SCEE)

Position: Teacher Assistant

(Aug 2, 2021 to Apr 25, 2023)

National Highway Authority, Pakistan

Position: Trainee Engineer

(Oct 1, 2020 to Dec 31, 2020)

National Engineering Services Pakistan (PVT) Limited

Position: Trainee Site Supervisor

(Apr 1, 2019 to May 30, 2020)

Communication and Works Department Peshawar, Pakistan

Position: Trainee Engineer

(Jul 23, 2018 to Sep 23, 2018)

PUBLICATIONS

- Nangyaley Khan, Hammad Anis Khan, Rao Arsalan Khushnood, Muhammad Faraz Bhatti, and Danish Ilyas Baig. 2023. “Self-Healing of Recycled Aggregate Fungi Concrete Using Fusarium Oxysporum and Trichoderma Longibrachiatum.” *Construction and Building Materials* Vol-392, Page-131910. <https://www.sciencedirect.com/science/article/pii/S0950061823016240>
- Hassan Amjad, Muhammad Shah Zeb, Rao Arsalan Khushnood, and Nangyaley Khan. 2023. “Impacts of Biomimetic Self-Healing of Lysinibacillus Boronitolerans Immobilized through Recycled Fine and Coarse Brick Aggregates in Concrete.” *Journal of Building Engineering* Vol-76, Page-107327. <https://www.sciencedirect.com/science/article/pii/S2352710223015073>

PROJECTS COMPLETED

- Eco-Friendly Highways: Harnessing Waste Polystyrene and Reclaimed Asphalt Pavement for Sustainable Roadways and Environmental Mitigation.
- Synthesis, Characterization, Optical and Dielectric Properties of NiO and Zn-Doped NiO Nanostructures: Towards Advanced Applications.
- Enhancing Road Pavement Performance with Waste Baby Diapers and Face Masks for Environmental Sustainability: Innovative Waste Management.
- Unveiling Enhanced Performance of Chemically Treated Bamboo Reinforcement in Concrete Beams for Sustainable Construction.
- Stabilization of Expansive Soils Using Fungi Based Calcium Carbonate Precipitation.