

The University of KwaZulu-Natal (UKZN) is committed to meeting the objectives of Employment Equity to improve representativity within the Institution. Preference will be given to applicants from designated groups under our Employment Equity Plan.

COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE

POSTDOCTORAL FELLOWSHIP (X2 Post)

01 JULY 2026 – 30 JUNE 2027

DISCIPLINE OF CIVIL ENGINEERING

SCHOOL OF ENGINEERING

HOWARD COLLEGE CAMPUS

REF NO. ENG-STRg-PD5

The KZNDOT Chair in Sustainable Transportation and the Sustainable Transportation Research group (STRg) at the University of KwaZulu-Natal (UKZN) invites applications for two **Postdoctoral Research Fellow positions** in **resilient transportation infrastructure and intelligent transportation systems**. This is an excellent opportunity to contribute to cutting-edge research with real-world applications in smart, sustainable, and inclusive mobility. We encourage talented and passionate researchers to apply!

The successful candidates will contribute to one of the two interdisciplinary research projects:

Research Project 1

Climate-Resilient and Sustainable Road Infrastructure

This research explores how road infrastructure can adapt to the growing impacts of climate change. The project will investigate climate vulnerability of road networks, develop resilience assessment frameworks, and evaluate the performance of non-conventional and sustainable construction materials, including recycled and waste-derived materials, for durable and environmentally responsible road infrastructure

Research Project 2

Artificial Intelligence for Next-Generation Transportation Systems

This research focuses on the use of artificial intelligence and machine learning to improve transportation system performance and infrastructure management. Potential applications include traffic prediction, infrastructure monitoring, predictive maintenance, mobility analytics, and decision-support tools for sustainable transportation planning.

The successful incumbent will conduct high-impact interdisciplinary research in transportation infrastructure or intelligent transportation systems. S/he will develop innovative methodologies combining engineering, data analytics, and AI techniques. S/he will publish research in leading international journals and conferences. S/he will contribute to research proposals and collaborative projects. S/he will assist with postgraduate supervision, mentoring and engage with national and international research partners

Minimum Requirements:

- PhD in Transportation Engineering, Civil Engineering, Infrastructure Engineering, Data Science, Computer Science, or a closely related discipline obtained within the last 5 years
- Demonstrated research experience in at least one of the following areas:
 - Transportation infrastructure or pavement engineering
 - Climate resilience and infrastructure adaptation
 - Sustainable or non-conventional construction materials
 - Artificial intelligence or machine learning applications
 - Transport data analytics
- Publication record in peer-reviewed journals
- Ability to work in interdisciplinary and international research environments

Advantages

- Experience with transport modelling, network analysis, or GIS
- Programming experience in Python, MATLAB, or similar
- Experience with machine learning, computer vision, or data-driven infrastructure monitoring
- Interest in sustainable infrastructure and climate adaptation

Funding: Competitive tax-free stipend of ZAR 275,000.00 per annum and project expenses.

The closing date for receipt of applications is **19 May 2026**.

Applicants are required to submit the following documents in **PDF Format** to **Mostafam@ukzn.ac.za**, with the subject line **"Postdoc Application - 2026"**.

- A detailed CV, including a list of publications
- A research proposal outlining how their expertise aligns with the focus areas
- Contact details of two academic referees
- Full transcripts of academic records and a copy of the doctoral degree certificate.
- Copy of ID document (or copy of passport in the case of foreign applicants)

Kindly note that the University of KwaZulu-Natal ("the University") is required to process any Personal Information (as defined by the [Protection of Personal Act, 2013 "POPIA"](#)) submitted by candidates when applying for positions at the University. The University will endeavour to ensure that the appropriate security measures are in place and implemented for both electronic and paper-based formats that are used for processing of the personal information recorded through this recruitment and selection process. We refer you to the University's relevant Section 18 notice at http://vacancies.ukzn.ac.za/Libraries/General_Documents/Section_18_Notice_-_Employees_and_Potential_Employees.sflb.ashx