



#### **VISION**

##### **Shape and own the future**

To be a transforming, equitable, sustainable, and academically excellent University of Technology anchored in its communities.

#### **MISSION**

To offer technological, career-directed educational programmes focussing on the innovative problem-solving research and engage with government, business, industries and communities as end-users.

### **FACULTY OF APPLIED AND HEALTH SCIENCES**

#### **POSTDOCTORAL RESEARCH FELLOWSHIP**

*(Exploring the Application of Artificial Intelligence in Higher Education Mathematics Instruction: Addressing Challenges and Unveiling Potential Benefits)*

**One-Year Fixed Contract**

The Faculty of Applied and Health Sciences, through the Research Directorate of Mangosuthu University of Technology is pleased to announce a Postdoctoral Research Fellowship for 2025/2026 on: “Exploring the Application of Artificial Intelligence in Higher Education Mathematics Instruction: Addressing Challenges and Unveiling Potential Benefits”.

In this project we aim investigate how AI can enhance teaching and learning in higher education mathematics, identify key challenges in integrating AI into mathematics instruction, explore the potential benefits of AI for students, educators, and institutions in mathematics education and contribute to the development of best practices for AI implementation in STEM education.

#### **Key Performance Areas:**

- Publish manuscripts in reputable (DHET-accredited) journals and peer-reviewed conference proceedings.
- Assist colleagues pursuing their postgraduate research and/or collaborating with other research fellows.
- Assist in overall management and contribution to various activities of the research project.
- To prepare and publish manuscripts of high quality in DHET journals.
- Ability to co-supervise relevant postgraduate research and/or collaborating with other postdoctoral fellows.
- Assisting in overall management and contribute to the various activities of the Research projects.

- Initiating, developing and/or being involved in research networks, collaborations, institutional partnerships, and the organization of research events.

#### **Minimum Requirements:**

- A PhD in Education (specializing in Educational Technology/Mathematics Education /Artificial Intelligence or any other related field) obtained in not more than past five years.
- Published at least two DHET-accredited journal articles in the above-stated specialist areas in the last 24 months.
- South African citizens and permanent residents will have priority, but the call is open to international scholars.
- International Postdoctoral Research Fellows must have a long-term visitor's visa endorsed for academic activities affiliated with MUT (Section 11(1)(b) Visitors Visa).
- Should not reside outside South Africa during this fellowship.
- Should not hold full-time permanent academic or professional employment during this fellowship.

#### **Competencies:**

- Excellent oral and written communication skills.

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**Stipend:** R300 000.00 per annum (tax-exempt)

Interested applicants should send (a) a motivation detailing the extent to which they meet the requirements of the position; (b) an application form (downloadable from [www.mut.ac.za](http://www.mut.ac.za)); (c) a Curriculum Vitae; (d) certified copies of academic qualifications plus academic records, proof of professional registration with a relevant professional body where applicable and copy of a valid driver's license. **(Please provide academic transcripts and SAQA evaluation certificate, if qualifications were obtained outside South Africa)**; and (e) names of three contactable referees to: Department of Human Resources and Development, via email: [hr@mut.ac.za](mailto:hr@mut.ac.za). copied [Alfred@mut.ac.za](mailto:Alfred@mut.ac.za)

Enquiries: Tel (031) 907 7602

**Closing Date: 30 May 2025**

