

2023 Research and collaborative activities

Recruitment opportunities

Post-doctoral researchers, research fellows, and doctoral candidates

The Faculty of Education is currently recruiting highly motivated and qualified post-doctoral researchers, research fellows, and doctoral candidates in a number of areas. Access our website for further details:

<https://stemvirtual.mandela.ac.za/>

RESEARCH AND COLLABORATIVE INTERESTS

Neuro-cognitive mathematics (STEM)

- . Mathematics and computational cognition
- . STEM cognition
- . Cognitive computing and modelling

STEM cognitive enhancement via human-computer interaction

- . Metaverse-powered smart STEM Education in the Industry 4.0
- . Mobile-computing (M-learning or E-learning)
- . Artificial Intelligence (AI) in Digital Education
- . Virtual learning environments (VLEs)
- . Computer-based assessment for learning (CBAfL)
- . Application of bio-sensing technologies for teaching and learning
- . Digital technology applications (Sketchpad, GIS, SmartPLS, MATLAB, Geogebra, Blockchain, JAWS, VR,AR, MR, Metaverse, IoT, Robotics).
- . Information security in e-learning (m-learning) platforms

Predictive/mathematical modelling

- . Actuarial analysis and modelling (AMOS and Basys)
- . Stochastic partial differential equations & modelling (Matlab)

SPECIAL JOURNAL ISSUES

We are also accepting calls for the following SPECIAL ISSUES:

Special issue topic 1

Integrating Fundamental Digital -Technology Solutions in Africa's Higher Education Practices and theories for sustainability

Journal: *South Africa Journal of Higher Education*

Special issue topic 2

Mathematical Modeling and Cognitive Computing

Journal: *Mathematics*

Special issue topic 3

Digital Education and Curriculum Innovation: Global Perspectives

Journal: *Education sciences*

For details, see <https://stemvirtual.mandela.ac.za/Guest-Editors-of-Journals>

For more information, contact any of the members via the link below:

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Neuro-cognitive STEM enhancement & human-computer interactions

<https://stemvirtual.mandela.ac.za/Our-Project-Team>