

A Graduate from Umsamo Institute

As a graduate from the esteemed Umsamo Institute, which comprises Indigenous African healers and researchers, my design philosophy is deeply rooted in the rich tapestry of ancestral wisdom and the holistic approach to knowledge and problem-solving.

Drawing inspiration from the traditional healing practices and profound wisdom of Indigenous African cultures, I seek to create designs that honour the interconnectedness of nature, humanity, and the spiritual realm. This philosophy guides me in developing innovative solutions that are sustainable, culturally sensitive, and harmonious with the environment.



www.umsamo.org.za



African Beads Symbolise:

Heritage & Identity, *Spirituality & Religion*, Celebration & Festivals, Rites of Passage, Status & Wealth, Communication & Expression, Protection & Healing, Tradition & Craftsmanship.



Unveiling Earth's Secrets: Geohydrology & Acid Rock Drainage

Google Scholar: <https://scholar.google.com/citations?user=VTkfb0gAAAAJ&hl=en&authuser=1>
Research Gate: <https://www.researchgate.net/profile/Innocentia-Mkhize>

As my research philosophy revolves around the pursuit of understanding and addressing the challenges of Geohydrology, Geochemical models, Machine learning and Acid Rock Drainage. Through multidisciplinary collaboration, Geochemical models and Machine learning is a subset of artificial intelligence (AI), and field studies, I aim to uncover the mysteries of Earth's subsurface water systems and the mechanisms behind Acid Rock Drainage. With a focus on environmental stewardship and sustainability, I seek to develop innovative and comprehensive solutions that contribute to the responsible management of groundwater resources and the mitigation of ARD's environmental and socioeconomic impacts.

Dr Innocentia Mkhize



Guided by Indigenous Wisdom

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STEAMing Ahead for a Sustainable World

www.elozi.org

Founder & CEO

ELOZI-NPC envisions a future where STEAM (Science, Technology, Engineering, Arts, and Mathematics) education is at the forefront of sustainable development, empowering youth to shape a thriving and environmentally conscious world. Through innovative learning experiences, ELOZI-NPC aims to inspire a new generation of problem solvers and change makers who embrace STEAM disciplines to create a sustainable and equitable future for all.



https://www.dut.ac.za/faculty/engineering/chemical_engineering_and_pulp_paper/

Nurturing Minds & Empowering Engineers

Lecturer: InnocentiaM2@dut.ac.za

Serving as a Catalyst for T&L Excellence, ECSA Accreditation, and Ethical Integrity within DUT and the Faculty.

My approach to teaching chemical engineering, I strive to inspire and empower students to become transformative engineers, equipped with a comprehensive understanding of subjects such as Chemical Engineering Design, Process Fluid Flow, Technical Literacy, and Green Engineering.

My teaching philosophy is cultivating a dynamic learning environment involving students, guest lecturers, NGOs and industry partners. By fostering critical thinking, creativity, and hands-on problem-solving, we aim to produce adaptive graduates who are equipped to thrive in a rapidly changing world.



ERASMUS Staff Mobility Programme Enables Exciting Collaboration with the University of Huelva, Spain, on COIL Activities for MEng Chemical Engineering aligned with DUT-ENVISION2030!