DUT

DURBAN UNIVERSITY OF TECHNOLOGY
INYUVESI YASETHEKWINI YEZOBUCHWEPHESHE

# EXCELLENCE 2026
## SEMESTER 1




ENVISION2030

transparency • honesty • integrity • respect • accountability
fairness • professionalism • commitment • compassion • excellence

CREATIVE. DISTINCTIVE. IMPACTFUL.

# ENVISION2030

## STATEMENT OF INTENT

**By 2030**

Our people will be creative, innovative, entrepreneurial and adaptive to changes in the world;
Our people will participate productively in the development of our region, country and the world;
Our state-of-the-art infrastructure and systems will enhance an ecosystem created to achieve this vision.

...and thus contribute to **Improving Lives and Livelihoods**

INFLUENCING AND IMPACTING

EFFECTING AND ENABLING

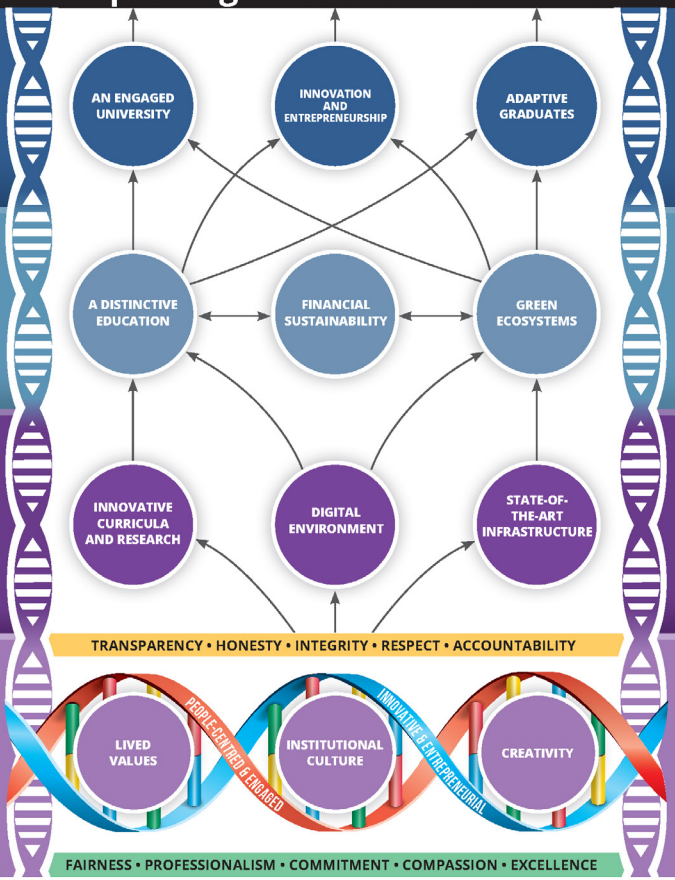
### SOCIETY
...that leads to mutually beneficial collaborations, the practical application of knowledge and future-ready graduates...

### SUSTAINABILITY
...resulting in the delivery of a distinctively DUT experience, within an environmentally responsible and financially sustainable framework...

### SYSTEMS & PROCESSES
...we will build an enabling environment that supports dynamic curricula that inspire innovation and entrepreneurship...

### STEWARDSHIP
By living our values and principles within a culture of shared responsibility and accountability, and embracing creativity...

START




**AN ENGAGED UNIVERSITY**
Be engaged and productive glocal citizens that establish mutually beneficial partnerships

**INNOVATION AND ENTREPRENEURSHIP**
Leverage new knowledge and solutions for societal impact

**ADAPTIVE GRADUATES**
Develop graduates with the acumen to initiate and/or respond to change

**A DISTINCTIVE EDUCATION**
Create a compelling and future-oriented living and learning environment

**FINANCIAL SUSTAINABILITY**
Engender a sustainable and efficient business model

**GREEN ECOSYSTEMS**
Make environmental sustainability core to all university activities

**INNOVATIVE CURRICULA AND RESEARCH**
Provide curricula that stimulate creativity and innovation to generate new knowledge and solutions

**DIGITAL ENVIRONMENT**
Adopt integrated digital systems and processes that enable our people to deliver optimally

**STATE-OF-THE-ART INFRASTRUCTURE**
Provide contemporary work, learning and living spaces

**LIVED VALUES**
Nurture a people-centred culture that embodies our values and principles

**INSTITUTIONAL CULTURE**
Foster a culture of accountability and shared responsibility in achieving the DUT way

**CREATIVITY**
Inspire innovation and entrepreneurship

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DURBAN UNIVERSITY OF TECHNOLOGY
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Creative. Distinctive. Impactful.

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# FOREWORD

It is encouraging that this first edition of DUT Excellence for 2026 coincides with the release of a major academic survey that reflects a significant improvement in DUT's global standing.

The article on Page 8 confirms that DUT has achieved its strongest performance to date in the 2026 Times Higher Education Sustainability Impact Rankings. The University has moved from the 1001–1500+ band in 2025 to the 401–600 band globally in 2026. This represents a significant milestone in a ranking that includes 1,646 universities across 116 countries and territories.

The results were officially announced on 24 June at the Global Sustainable Development Congress held in Jakarta, Indonesia. DUT was represented by Professor Fulufhelo Nemavhola, Deputy Vice-Chancellor: Research, Innovation and Engagement, and Dr Nomcebo Mthombeni, Interim Director: Research and Postgraduate Support.

Professor Nemavhola noted that this achievement is more than a ranking, but rather a powerful affirmation of DUT as an Impact-Visible University. He emphasised that the University's knowledge is not only produced and published, but is also visible in improved lives, stronger communities, and sustainable development outcomes.

This edition further highlights the University's continued research excellence. In the most recent reporting cycle, DUT submitted 702.62 research output units, of which 660.98 were approved following DHET verification. This reflects an approval rate of 94.1 percent, the highest achieved in the past five years, and demonstrates continued improvement in the quality and accuracy of institutional research outputs.

The University has also secured eight new South African Research Chairs Initiative (SARChI) Chairs from the National Research Foundation, further strengthening its research capacity and national profile. These appointments include Professor Eric Oscar Amonsou, Professor Sheena Kumari Kuttan Pillai, Professor Rendani Wilson Maladzhi, Professor Pfano Mashau, Professor Tabitha Grace Mukeredzi, Professor Kugen Permaul, Professor Olive Stumke, and Professor Molusiwa Stephan Ramabodu, each leading key strategic research areas aligned to national and global priorities.

These achievements reflect the dedication and commitment of DUT's academic community in advancing impactful research, innovation, and knowledge creation.

We trust that readers will find this edition both informative and inspiring, as it continues to reflect DUT's commitment to ENVISION2030 and its ongoing pursuit of excellence in teaching, learning, research, and innovation.

**TIYANI MBOWENI** | COMMUNICATIONS MANAGER


S10
S9
S8
DUT
S-BLOCK
GALLERY


S7
S6
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# DUT CLIMBS TO TOP 600 IN GLOBAL IMPACT RANKINGS

TIYANI MBOWENI

**The Durban University of Technology (DUT) has achieved its strongest performance yet in the 2026 Times Higher Education Sustainability Impact Rankings, climbing from the 1001-1500+ band in 2025 to the 401-600 band globally. The latest rankings assessed 1 646 universities from 116 countries and territories.**

The results were announced on Wednesday, 24 June 2026 at the Global Sustainable Development Congress held in Jakarta, Indonesia, a key international gathering of higher education leaders and partners focused on advancing the United Nations Sustainable Development Goals (SDGs).

This notable improvement reflected DUT's sustained commitment to its ENVISION2030 strategic framework and its ongoing efforts to position the University as a creative, distinctive and impactful institution under the visionary leadership of Vice-Chancellor and Principal, Professor Thandwa Mthembu.

DUT was represented at the announcement by Professor Fulufhelo Nemavhola, Deputy Vice-Chancellor: Research, Innovation and Engagement and Dr Nomcebo Mthombeni, Interim Director: Research and Postgraduate Support. Their participation underscored the University's active engagement in global academic platforms and its commitment to strengthening research impact and international collaboration.

The improved ranking affirms DUT's growing global recognition as a university whose core functions of teaching, research, innovation, engagement and partnerships are making meaningful contributions to sustainable development and societal transformation.

Commenting on the achievement, Professor Nemavhola said: "This achievement is more than a ranking; it is a powerful affirmation that DUT is an Impact-Visible University, an institution whose knowledge is not only produced and published, but seen in improved lives, stronger communities and sustainable development. Through ENVISION2030, we are deliberately building a university whose research, innovation and engagement reach beyond campus into communities, industries and the world. This recognition belongs to the entire DUT community, whose collective work continues to make the University creative, distinctive and impactful."

> *This achievement is a collective milestone for the entire DUT community, reflecting the dedication and collaboration of academic and professional staff, students, alumni, and partners who continue to advance the University's mission of delivering impactful, solutions-driven education and research that responds to real societal needs.*




## IMPACT RANKINGS | BY NUMBERS

| Impact Ranking 2026 | No Poverty 2026 | Good Health & Wellbeing 2026 | Clean Water & Sanitation 2026 | Decent Work & Economic Growth 2026 | Partnership for Goals 2026 |
|---|---|---|---|---|---|
| 401-600TH | =60TH | 601-800TH | 301-400TH | 201-300TH | 201-300TH |

| 2022 | 2023 | 2024 | 2025 | 2026 |
|---|---|---|---|---|
| 601-800TH | 801-1000TH | 1001-1500TH | 1001-1500TH | 401-600TH |

# RECORD RESEARCH OUTPUT MARKS MILESTONE FOR DUT

**The Durban University of Technology (DUT) has achieved its strongest Department of Higher Education and Training (DHET)-accredited research performance to date, marking another significant milestone in the university's research journey.**

In the 2024 reporting cycle, DUT was awarded 660.98 accredited research output units, an increase of 14.9% from the 575.40 units achieved in 2023. The result reflects sustained growth in research productivity and impact across the institution.

The latest figure extends a decade-long upward trajectory, with accredited outputs rising from 235.62 units in 2015 to 660.98 in 2024. This represents an overall increase of 180.5% across journal articles, books, book chapters and conference proceedings.

DUT submitted 702.62 research output units for the 2024 cycle, of which 660.98 were approved following DHET verification. A further 2.41 units will be carried forward to the next reporting period. The university achieved a 94.1% approval rate, its highest in the past five years, highlighting continued improvements in the quality and accuracy of submissions.

Professor Fulufhelo Nemavhola, Deputy Vice-Chancellor: Research, Innovation and Engagement, said the result was not only about increasing output, but also about strengthening the credibility of that output. "When we grow our research output units and simultaneously improve our approval rate, it tells a bigger story: our systems are maturing, our evidence is stronger, and our research outputs are being validated with greater confidence."

Journal publications remain the primary driver of DUT's research output. The university claimed 553.36 journal units, of which 532.40 were approved, reflecting a 96.2% approval rate. "This is important because journals are where our research is most visible internationally," Prof Nemavhola noted. "It also means our internal processes - including author verification, affiliations, supporting evidence and accurate capture - must be excellent because journals are where small errors get magnified."

Book publications and book chapters showed a significant rebound in 2024. DUT claimed 78.15 units and was awarded 67.95 units, translating into an 86.9% approval rate. Year-on-year growth in this category demonstrated a recovery after earlier fluctuations.

Published conference proceedings were also strengthened. DUT claimed 71.10 units and was awarded 60.64 units, with an 85.3% approval rate, reflecting steady consolidation in this category.

While volume is one measure of success, quality is key for external recognition. DHET feedback showed that errors in author counts, Digital Object Identifiers (DOI), and evidence packaging could lead to unit deductions or rejection. The Department treats incorrect author counts as a serious matter, as they directly affect unit allocation and can be considered fraudulent in extreme cases.

DUT's 94.1% approval rate indicated that submissions were increasingly clean, improving from 92.7% in 2023. "As a university, we must treat every research output unit as a protected asset," Prof Nemavhola said. "A unit lost to avoidable documentation or capture errors is not just an administrative issue. It is lost recognition for scholarly work already completed."

Looking ahead, DUT aims to turn the 2024 momentum into a sustainable advantage. Strengthening internal controls, particularly around author verification, DOI validation and evidence packaging, is central to ensuring

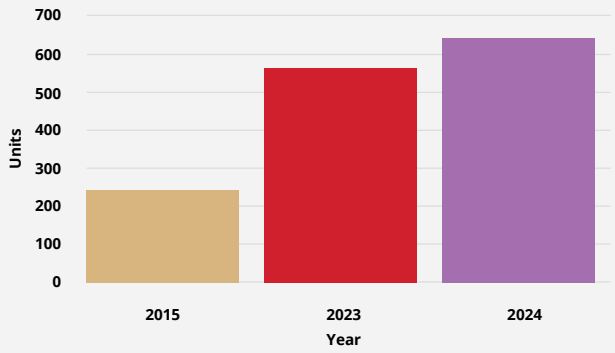
all submissions are audit-ready before they reach the DHET. “Our next step is to institutionalise a culture of submission integrity,” Prof Nemavhola added. “Output growth must be matched by process excellence, so our researchers are rewarded fully and fairly for what they produce,” he concluded.

The 2024 research output at DUT reflected the combined efforts of researchers, supervisors, postgraduate students and support teams, who ensured submissions were credible and complete.

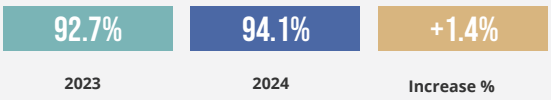
## DHET RESEARCH OUTPUT | AT A GLANCE

| 702.62 | 660.98 | 14.9% | 94.1% | 2.41 |
|---|---|---|---|---|
| units submitted | DHET-accredited research output units in 2024 | increase from 2023 (+85.58 units) | approval rate, highest in five years | units carried over to next cycle |

### DECADE GROWTH (SELECTED YEARS)




### APPROVAL RATE TREND






Professor Fulufhelo Nemavhola, Deputy Vice-Chancellor: Research, Innovation and Engagement at DUT.

# DIGITAL EXCELLENCE EARNS DUT GLOBAL RECOGNITION

ALAN KHAN

**The Durban University of Technology (DUT) has once again earned international recognition after securing a place among the top 6% of universities worldwide in the 2026 Webometrics Ranking of World Universities.**

The achievement places DUT within an elite group of institutions recognised for their online visibility, research impact and contribution to making knowledge more accessible.

> *The latest rankings evaluated more than 32 000 higher education institutions globally, reflecting the growing importance of digital presence and scholarly influence in higher education.*

DUT also maintained its position as South Africa's highest-ranked University of Technology in the survey, reinforcing its reputation for academic excellence, innovation and research visibility. The result builds on the university's strong performance in the 2025 rankings, where it also featured among the world's top-performing institutions.

The Webometrics Ranking of World Universities has been published since 2004 by the Consejo Superior de Investigaciones Científicas (CSIC), the largest public research organisation in Spain. Unlike many global rankings that primarily focus on long-established, globally recognised universities, Webometrics evaluates a broad spectrum of institutions, including those in the Global South that are often overlooked.

The ranking aims to promote open access to knowledge produced by universities and places emphasis on the quantity and quality of higher education web content. Webometrics emphasises that rankings significantly influence academic behaviour and institutional strategy, describing them as "one of the most powerful tools for initiating and consolidating change in academia, increasing scholars' engagement, and establishing long-term strategies."

Commenting on the achievement, Professor Fulufhelo Nemavhola, Deputy Vice-Chancellor: Research, Innovation and Engagement at DUT, said; "The result reflects the university's sustained focus on impactful and accessible scholarship. This recognition affirms DUT's commitment to producing high-quality, socially responsive, impactful research that is visible, accessible and relevant beyond our institutional boundaries."

He added that the Webometrics 2026 ranking highlights the collective efforts of the university's academic community.

***"Being placed in the top 6% globally, out of more than 32000 institutions, is a significant milestone. In line with our ENVISION2030 strategy, it speaks to our growing research excellence, our digital maturity and our determination to contribute knowledge that makes a meaningful difference to society," he said.***




DUT Steve Biko Campus

# DUT EXPANDS RESEARCH AMBITION WITH 18 NEW INSTITUTES

**Durban University of Technology (DUT) is set to significantly strengthen its research and innovation ecosystem with the establishment of 18 new Research Institutes from 2026. The initiative forms part of the University's commitment to advancing impactful, interdisciplinary research that addresses real-world challenges.**

Approved by the DUT Council and supported by Senate, the institutes form part of the University's Disruptive Projects Programme, a strategic initiative aimed at accelerating innovation, entrepreneurship and societal impact in line with DUT's ENVISION2030 strategy.

The expansion builds on the success of existing institutes such as the Institute of Wastewater Technology (IWWT) and the Institute of Systems Science (ISS), both of which have demonstrated DUT's capacity to deliver research that responds to pressing environmental, technological and societal needs.

Together, the new and established institutes will create stronger platforms for collaboration, knowledge generation and innovation, further positioning DUT as a leading contributor to economic development, social advancement and research excellence.

This milestone has been achieved under the strategic and visionary leadership of the Vice-Chancellor and Principal, Professor Thandwa Mthembu, with oversight from the DUT Council.

Deputy Vice-Chancellor: Research, Innovation and Engagement, Professor Fulufhelo Nemavhola, said: "The establishment of 18 research institutes is a strategic acceleration to strengthen interdisciplinary research, respond to real societal and economic challenges, and enhance DUT's national and global competitiveness."

He highlighted the critical role the new research institutes will play in developing the next generation of researchers. "Through these research institutes, DUT is creating structured platforms for emerging and established researchers, postdoctoral fellows and postgraduate students to thrive, while ensuring that research excellence goes hand in hand with real-world impact."

## THE 18 RESEARCH INSTITUTES SPAN CRITICAL AREAS OF SCIENCE, TECHNOLOGY, SOCIETY AND INNOVATION. THEY INCLUDE:

1. Institute of Hydrogen Technology
2. Institute for Innovation and Entrepreneurship
3. Advanced Grid Technology Research Institute (conversion)
4. Smart Agriculture and Food Security Institute
5. Institute for Advanced Manufacturing and Robotics
6. Institute for Societal and Technological Advancement and Impact
7. Institute of Ocean Engineering and Marine Technology
8. Urban Planning and Smart Cities Institute (conversion)
9. DUT Health Devices Innovation Institute
10. Institute of Micro and Nano Systems (IMiNaS)
11. Institute for the Future of Work and Education
12. Institute for Environmental and Climate Change Research
13. Indigenous Food Research Institute (IFRi)
14. Biotechnology and Health Innovation Institute
15. Space Engineering and Exploration Institute
16. Institute for Data Science and Artificial Intelligence
17. BRICS Research Institute
18. Biocatalyst Research Institute (conversion)

Prof Nemavhola said the rollout of the institutes will follow a phased implementation approach in line with institutional policy and governance frameworks.

In 2026, DUT will implement five institutes as the first wave: Hydrogen Technology; Innovation and Entrepreneurship; Health Devices Innovation; Data Science and Artificial Intelligence; and Urban Planning and Smart Cities. One existing centre will be converted into a full institute, bringing the total number of institutes implemented in the year to six.

"The first-wave research institutes are anchored in the defining questions of our time: how we power our economies sustainably, harness digital transformation, advance health innovation, grow inclusive enterprises and build cities that can endure," explained Prof Nemavhola. "They signal a deliberate shift in how universities respond to global change, not as observers but as active partners in shaping solutions."

He added, "What sets these institutes apart is not only the technology they will generate but the way they are designed to work: across disciplines, in partnership with industry and communities, and with a clear line of sight from discovery to implementation. By accelerating the journey from research to real-world impact, they position DUT as a catalyst for innovation that can be adopted, adapted and scaled where it matters most."

The research institute programme is designed to generate tangible societal and economic benefits. The framework prioritises community benefit, economic development, and job creation as core measures of impact.

For KwaZulu-Natal and South Africa, this initiative translates into research that delivers tangible improvements in areas such as health technologies, food security, energy resilience, and smarter, more sustainable cities.



DUT Steve Biko Campus

# THE FUTURE PHD MUST PRODUCE CAPABILITY, NOT JUST KNOWLEDGE

PROFESSOR FULUFHELO NEMAVHOLA




Universities must stop treating usefulness as the enemy of rigour, Professor Fulufhelo Nemavhola writes in a call to raise doctoral standards.

South Africa does not need to decommission the PhD. It needs to be re-engineered for the country, continent and future we are trying to build.For generations, the doctorate has been treated as the highest expression of academic achievement. A candidate identifies a research problem, reviews the literature, designs a methodology, collects and analyses evidence, writes a thesis, defends an original contribution and, increasingly, publishes articles from the work.

This model has served universities well. It has produced scholars, scientists, public intellectuals and disciplinary experts. It remains essential to academic life.

But the world around the doctorate has changed.

The PhD can no longer be imagined only as preparation for an academic career. In South Africa, as in much of the Global South, societies face urgent problems that require high-level knowledge to move beyond publication into practice: energy insecurity, water stress, weak industrialisation, public health pressures, technological dependency, climate vulnerability, youth unemployment, and fragile public institutions.

These are not only theoretical problems. They are engineering, policy, institutional, scientific, social, and technological problems. They require knowledge of thinking, designing, testing, validating, implementing, and scaling.

That is why the debate about the future of the PhD should not be reduced to whether countries produce enough doctorates. The deeper question is whether doctoral education is producing the kind of capability that societies now require.

## SOLVING PROBLEMS THAT MATTER

South Africa's National Development Plan 2030 (NDP) sets an ambitious

target of producing more than 100 doctoral graduates per million people per year by 2030. It also called for more than 75% of university academic staff to hold doctorates, and for postgraduate enrolments to constitute more than 25% of university enrolments.

The latest available figures show the scale of the challenge. South Africa produced 3,620 doctoral graduates in 2023, equivalent to 58 doctoral graduates per million of the total population. The proportion of academic staff with doctorates reached 52.7% in 2023, reflecting progress but still falling short of the NDP target.

These figures confirm that South Africa still needs more doctoral graduates. But numbers alone will not be enough. If doctoral education expands without redesign, countries may produce more PhDs without producing the capabilities needed to transform their economies, institutions and societies.

> *The old doctorate asked candidates to make an original contribution to knowledge. The future doctorate must still demand this, but it must go further. It must also ask whether that knowledge can strengthen systems, improve practice, generate technology, inform policy, support communities, create enterprises and solve problems that matter. This is not a call to lower doctoral standards. It is a call to raise them.*

## APPLICATION & IMPLEMENTATION

A future PhD should not be satisfied with publication alone when the field itself demands application, translation or implementation. In many disciplines, especially at universities of technology and applied institutions, doctoral work should produce patents, prototypes, software, technological standards, clinical tools, policy instruments, community interventions, industrial processes, and new enterprises.

These outputs should not be treated as secondary decorations added after the 'real' academic work has been completed. In appropriate fields, they should be recognised as legitimate doctoral outputs, provided they are original, rigorous, ethical, independently examined and intellectually defensible.

A patent without scholarship is not a PhD. A prototype without theory is not a PhD. A policy instrument without evidence is not a PhD. A community intervention without a method is not a PhD. But, equally, a thesis that produces articles without any pathway to social, technological, or professional usefulness should not automatically be treated as superior to a doctoral project that produces a validated medical device, a working software system, a tested governance model or an innovation that improves public service delivery. Universities must stop treating usefulness as the enemy of rigour.

## SKILLS REVOLUTION

This is particularly important for Africa. The African Union's Agenda 2063, often called 'The Africa We Want', imagines a prosperous and self-confident continent built on inclusive growth, sustainable development, and technological capability. It calls for a skills revolution underpinned by science, technology and innovation (STI). It also speaks of transformed economies, STI-driven industrialisation, water security, climate resilience, renewable energy, and a stronger African role in global knowledge systems.

> *If Africa wants this future, then the African doctorate must change. It cannot remain a mere credential of academic arrival. It must become an instrument of continental capability. It must help Africa build, manufacture, diagnose, govern, invent, design, heal, conserve, compute and compete.*

In South Africa, the qualification framework is not entirely hostile to this future. The Higher Education Qualifications Sub-Framework recognises doctoral study at the National Qualifications Framework Level 10 and provides for both the traditional doctoral degree and the professional doctorate. It recognises advanced research, original contribution and, in the case of professional doctorates, the relationship between knowledge and high-level professional practice.

The Council on Higher Education has also undertaken national work on doctoral standards and the quality of doctoral education. This confirms that the doctorate is not merely a private agreement between a supervisor and a candidate. It is a national qualification with public meaning. It must carry public trust, international credibility, and the highest level of intellectual achievement. This is precisely why reform is needed.

## INNOVATION, PRACTICE, IMPACT UNDERVALUED

The existing framework contains flexibility, but it still gives insufficient status to innovation, practice, and impact as central features of doctoral education. It continues to carry the weight of an older imagination in which the doctorate is associated with the thesis, the academic career and publication-based scholarly contribution.

*Continued on next page*

The professional doctorate offers one route to practice, but it is often perceived as less prestigious than the traditional PhD because it is not awarded the globally recognised PhD title. This creates an unnecessary hierarchy between scholarly knowledge and practice-based excellence. That hierarchy is dangerous for developing countries.

Africa cannot build technological sovereignty, industrial capability, and stronger public institutions if the highest qualification in the knowledge system is designed too narrowly around the reproduction of academic careers. The doctorate must continue to serve universities, but it must also serve society. It must develop scholars, but also inventors, policy thinkers, technology builders, clinician-scientists, public-sector innovators, industrial researchers, and community-based knowledge leaders.

## INTEGRATED PROTOTYPES, POLICIES

A re-engineered doctoral framework should allow an engineering candidate to submit a tested prototype along with an integrative thesis that explains the theory, design process, validation, limitations, and original contribution.

**A candidate in public administration should be able to produce a policy instrument or governance model that is theoretically grounded and tested.**

**A candidate in computing should be able to submit software, an algorithmic system, or a data platform, accompanied by a critical account of its originality, robustness, bias, risk, and social value.**

**A candidate in health sciences should be able to submit a clinical tool, diagnostic platform or intervention model supported by rigorous evidence.**

The thesis should not disappear. Rather, it should evolve.

One model is the doctoral portfolio with an integrative thesis or exegesis. In this model, the candidate submits a body of work that may include publications, patents, prototypes, designs, software, standards, policy tools, professional instruments, or community interventions.

The integrative thesis then demonstrates the intellectual architecture of the work: the research problem, theoretical grounding, methodology, ethics, originality, validation, limitations and contribution to knowledge or practice. This model would protect academic rigour while recognising that high-level knowledge can take more than one form.

## BROADEN DOCTORAL RECOGNITION

South Africa should initiate a national review of the doctorate for the next generation. The Council on Higher Education, the South African Qualifications Authority, the Department of Higher Education and Training, universities, professional councils, science councils, industry, public-sector institutions, and civil society should be part of this conversation.

Such a review should modernise the language of the doctorate, broaden the recognition of doctoral outputs, include translation and impact in doctoral assessment, reconsider the status of the professional doctorate, and allow universities of technology to pilot impact-oriented PhD models.

> *This is not only a South African debate, it matters across the Global South. Many countries are trying to expand doctoral education while also seeking industrialisation, technological sovereignty, public-sector reform, and inclusive development. If doctoral education continues to follow models designed for academic reproduction, it will not fully serve these goals.*

The future PhD is not weaker. It is a more demanding PhD. It asks candidates not only to demonstrate what they know, but also what their knowledge can do. It asks universities to take responsibility, not only for enrolment and graduation, but for the destination and value of doctoral knowledge. It asks regulators to protect standards without freezing the doctorate in the past.

The doctorate must still produce knowledge. But for South Africa, Africa, and the wider Global South, it must also produce capability.

That is the PhD the future requires.

***His expert commentary was first published in University World News. The views expressed are those of the author in his personal capacity.***



Today's PhD graduates are stepping into a world that demands more than academic excellence.

# NEW RESEARCH CHAIRS STRENGTHEN DUT'S ACADEMIC IMPACT

SIMANGELE ZUMA AND WAHEEDA PETERS




The newly appointed DUT Research Chairs with Deputy Vice-Chancellor: Research, Innovation and Engagement at DUT, Professor Fulufhelo Nemavhola, along with the Minister of Science, Technology and Innovation, Professor Blade Nzimande, and NRF Board Member, Ms Funeka Khumalo, at the prestigious event. | National Research Foundation (NRF)

**Durban University of Technology (DUT) has secured eight South African Research Chairs Initiative (SARChI) Chairs from the National Research Foundation (NRF), strengthening the University's research capacity and national standing.**

The appointments formed part of the announcement of 41 new Research Chairs by the Minister of Science, Technology and Innovation, Professor Blade Nzimande. The initiative aims to expand research excellence, innovation and postgraduate development, particularly at historically disadvantaged institutions and universities of technology.

## THE NEW RESEARCH CHAIRS AT DUT ARE:

- **Professor Eric Oscar Amonsou (Chair in Sustainable Protein Innovation)**
- **Professor Sheena Kumari Kuttan Pillai (Chair in Wastewater Treatment and Reuse)**
- **Professor Rendani Wilson Maladzhi (Chair in Smart Manufacturing Technologies)**
- **Professor Pfano Mashau (Chair in Future-Fit and Inclusive Entrepreneurship for a Pan-African Society)**
- **Professor Tabitha Grace Mukeredzi (Chair in Education, Social Justice and Society)**
- **Professor Kugen Permaul (Chair in Biovalorisation)**
- **Professor Olive Stumke (Chair in Digital Transformation, Governance, SME Innovation, Education and Skills), and**
- **Professor Molusiwa Stephan Ramabodu (Chair in Sustainable Construction and Infrastructure Development).**

Deputy Vice-Chancellor: Research, Innovation and Engagement at DUT, Professor Fulufhelo Nemavhola, said securing eight Research Chairs marked a significant achievement for DUT, in line with the university's ENVISION2030 strategy.

"These SARChI Chairs will play a critical role in advancing our strategic research priorities, strengthening postgraduate training and nurturing the next generation of scholars. We are proud of this recognition and remain fully committed to building a vibrant and impactful research ecosystem at DUT. These national Research Chairs are also aligned with our recent implementation of 18 research institutes at DUT," said Prof Nemavhola.

Also speaking at the launch, Minister Nzimande emphasised that the aim of the appointment of the 41 Chairs was to expand the footprint of the NRF's Research Chairs at historically disadvantaged institutions, universities of technology and emerging universities.

This Minister added: "We also expect them to be deliberate about the development and mentoring of young, black and women researchers. You have a duty to ensure that the knowledge that is produced by our public universities enables our strategic mission of placing science, technology, and innovation at the centre of government, education, industry, and society. Congratulations to all our new Research Chair holders. I wish you well as you undertake this significant role."

Dr Angus Paterson, the NRF Acting CEO, said the new Research Chairs carry with them the responsibility of building research communities, mentoring the next generation, and producing knowledge that is both excellent and socially responsive. He indicated that the impact of their work will extend well beyond their disciplines; it will be felt within institutions, communities, and the broader society they serve.

"What we celebrate today is not simply the awarding of research chairs. We celebrate the strengthening of institutional research ecosystems, the creation of new pathways for emerging scholars, and the positioning of universities across the country as meaningful contributors to national development priorities," added Dr Paterson.

## DUT RESEARCH CHAIRS | BY NUMBERS

| 8 | 41 | 18 | 2026 |
|---|---|---|---|
| New DUT Research Chairs | New Chairs Nationally | Research Institutes | Launch Year |

# GLOBAL RECOGNITION FOR DUT ENVIRONMENTAL SCIENTIST

TIYANI MBOWENI

**Durban University of Technology (DUT) is celebrating the international recognition of Professor Faizal Bux, Director of the Institute for Water and Wastewater Technology (IWWT), who has been ranked among the world's leading environmental scientists.**

In the 2026 Research.com Ranking of Best Scientists in Environmental Sciences, Professor Bux was placed third in South Africa and 1 857th globally, underscoring the impact of his research on the international scientific community.

Adding to this achievement, he received the 2026 Research.com Environmental Sciences Leader Award for South Africa in recognition of his contribution to environmental science, innovation and sustainability. The accolade reflects decades of influential research in water and wastewater treatment, environmental biotechnology, renewable resources and sustainability, fields in which Professor Bux has built an internationally respected reputation.

Deputy Vice Chancellor: Research, Innovation and Engagement, Professor Fulufhelo Nemavhola, congratulated Professor Bux on the achievement. "Professor Bux's ranking is a well-deserved recognition of his commitment to research excellence and his contribution to environmental science. His work continues to raise the profile of DUT's research locally and internationally while contributing solutions to environmental issues that affect communities and industries alike," said Professor Nemavhola.

Professor Bux's research focuses on renewable energy, sustainability, wastewater treatment, pollution control and environmental biotechnology. Over the years, he has become widely recognised for his work in algal biotechnology, wastewater treatment and reuse, biodiesel production, carbon sequestration and water quality management.

His research has also explored the environmental impact of pharmaceuticals, antibiotics and microplastics, and the use of wastewater monitoring to better understand the spread of diseases such as COVID 19. Through his leadership of the Institute for Water and Wastewater Technology, Professor Bux has helped establish DUT as a centre of excellence in water and environmental research. His work has contributed to the development of research capacity, the supervision of postgraduate students and the strengthening of research partnerships in South Africa and abroad.

Professor Bux has published extensively in leading international journals, including Science of The Total Environment, Algal Research, Journal of Environmental Chemical Engineering and Chemosphere. His research continues to contribute to scientific knowledge and practical environmental solutions.

Professor Bux said the achievement reflects the collective efforts of students, researchers and collaborators who have contributed to the success of various research projects over the years."It is an honour to receive this recognition. Research is a collaborative effort, and I am grateful to the many students, colleagues and partners who have contributed to this journey. I remain committed to conducting research that supports sustainable development and addresses environmental challenges facing our country and the wider world."

Professor Bux's achievement is a source of pride for DUT and highlights the important role of research in finding solutions to environmental and sustainability challenges while contributing to the advancement of scientific knowledge.




Professor Faizal Bux, Director of the Institute for Water and Wastewater Technology (IWWT).


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# CHAMPIONING ETHICAL RESEARCH AT DUT

WAHEEDA PETERS

**Dr Itumeleng Maome has been recognised as the Institutional Research Ethics Committee's (IREC) Top Reviewer, honouring her contribution to strengthening ethical research practices at the Durban University of Technology (DUT).**

A lecturer in the Department of Entrepreneurial Studies and Management, Dr Maome plays an active role in teaching, postgraduate supervision and academic governance. Her growing involvement in research ethics has become a significant part of her contribution to the University.

> *After years of reviewing research proposals at departmental level, she joined IREC in 2024 shortly after completing her PhD. Since then, she has helped ensure that research conducted at DUT meets the highest ethical standards.*

The award recognises her commitment to fostering responsible scholarship and supporting a research culture that aligns with DUT's vision of academic excellence, innovation and societal impact.

"This opportunity came after I was nominated by the then Executive Dean of the Faculty of Management Sciences, Professor Netswera, to serve as the FMS representative on the IREC committee. Since then, being involved in IREC reviews has grown to be a significant aspect of my academic contribution," said Dr Maome.

"Receiving the recognition was unexpected yet greatly rewarding because I honestly did not anticipate it. However, knowing that my efforts are appreciated and noticed felt reassuring. This kind of recognition encourages me to keep making significant contributions to DUT's ethical research practices," she said euphorically.

Dr Maome explains that her work as an IREC reviewer aligns closely with DUT's ENVISION2030 values.

> ***"My work closely reflects the values of innovation, institutional excellence, and ethical stewardship. I contribute to developing responsible, socially conscious knowledge that helps communities by making sure research proposals adhere to ethical standards," she emphasised.***

She further highlighted the intellectual growth the role offers.

"Working with new research approaches and ethical dilemmas is one innovative part of my job. Reviewing proposals broadens my understanding of interdisciplinary research by exposing me to a variety of innovative, cross-disciplinary topics. I contribute to the production of excellent, reputable, and socially conscious research that expands knowledge both inside and outside DUT by upholding the ethical integrity of research," she explained.

According to Dr Maome, the IREC reviewer role is central to protecting research participants and maintaining public trust. “It ensures that DUT research is ethically acceptable, reliable, and compliant with both national and international standards... In the end, this increases public confidence in the university’s research outcomes,” she highlighted.

On average, she completes between 15 and 25 reviews annually, prioritising quality to ensure researchers receive thoughtful and constructive guidance.

Despite the demands of balancing reviews with other academic responsibilities, Dr Maome remains committed.

> *“Working with seasoned IREC reviewers helps to navigate these challenges as I have a sounding board in times of doubt, especially when reviewing proposals outside my discipline. Another challenge is that reviewing proposals can be demanding and requires a lot of sacrifice and sleepless nights. We also have to ensure timely feedback amidst other academic responsibilities, which requires careful time management,” she explained.*

Dr Maome aims to deepen her expertise by attending ethics workshops and conferences, including platforms hosted by Southern African Research and Innovation Management Association (SARIMA) and South African National Biennial Research Integrity Symposium (SANBRIS).

“I also want to contribute to capacity building initiatives for new researchers and contribute to refining ethical review processes, as well as supporting IREC’s efforts to streamline training for researchers. I look forward to continuing this journey and contributing meaningfully to DUT’s research excellence,” she concluded.


Dr Itumeleng Maome

## RESEARCH ETHICS | At a Glance

**15–25**

**REVIEWS COMPLETED ANNUALLY**

**ETHICS ROLE**
- Institutional Research Ethics Committee (IREC) reviewer
- Joined IREC in 2024

**POSTGRADUATE SUPERVISION**
- Business Research Proposals
- Business Research Reports (postgraduate diploma
- Master’s and PhD students

# DUT AND SAMSUNG LAUNCH INNOVATION CAMPUS

SINAMILE SITHOLE

**Durban University of Technology (DUT), through the DUT Business School, has partnered with Samsung Africa Electronics to launch the Samsung Innovation Campus, a programme aimed at equipping young people with in-demand digital skills.**

The initiative will provide 60 selected students with training in areas such as coding, programming and artificial intelligence, helping to improve employability and prepare graduates for a rapidly evolving digital economy.

The partnership was formalised through the signing of a Memorandum of Agreement during a launch event held in Durban in June, marking a shared commitment to innovation, entrepreneurship and youth development.

The programme has already generated significant interest, attracting 846 applications within a week. The response highlights the growing demand for digital and AI-related skills among South Africa's young people.

"The level of interest demonstrates the demand for digital and AI-related skills among young people. This programme is not only about technical training, it is about creating opportunities for graduates to become employable, start businesses and contribute meaningfully to the economy," said Professor Pfano Mashau, Director of the DUT Business School.

Delivering remarks on behalf of Samsung Africa Electronics CEO, Corporate Social Responsibility Manager Ms Lefa Makgato reaffirmed the company's commitment to youth development and digital transformation. She said the Samsung Innovation Campus is part of a global initiative preparing young people for the Fourth Industrial Revolution (4IR).

Ms Makgato also announced a R3.6 million investment over three years, aimed at bridging the gap between academic learning and industry needs while helping to address South Africa's digital skills shortage.

"We believe innovation must be inclusive and that technology should empower people and unlock opportunities. Through this partnership, we are investing in South Africa's digital future and helping to create work-ready graduates equipped with coding, programming and artificial intelligence skills," she said.

The Memorandum of Agreement between Samsung Africa Electronics and DUT was formally signed by Samsung Electronics Africa's Head of Public Affairs, Mr YunSon Yoo, and DUT's Director of Financial Accounting, Ms Ntombomzi Cenga, cementing the partnership and its shared commitment to digital education and youth empowerment.

DUT graduate and programme participant Sisanda Mazibuko welcomed the opportunity, expressing gratitude for the chance to gain skills in coding and artificial intelligence.

Closing the event, Head: Research and Innovation at the DUT Business School, Professor Simpiwe Nojiyela, thanked all partners and stakeholders for their support and congratulated the 60 selected students.

> *The launch reinforces DUT's ENVISION2030 strategy of driving innovation, collaboration and socio-economic development, while creating pathways for students to succeed in the digital economy.*




Samsung Electronics Africa's Head of Public Affairs, Mr YunSon Yoo, and DUT's Director of Financial Accounting, Ms Ntombomzi Cenga signing the MOA | FutureSA

# PROF AMONSOU LEADS DUT PUSH IN SUSTAINABLE PROTEIN INNOVATION

WAHEEDA PETERS

**Professor Eric Oscar Amonsou, Full Professor of Food Science at the Durban University of Technology (DUT), has been appointed as the NRF SARChI Tier 1 Research Chair in Sustainable Protein Innovation, strengthening the University's leadership in food science research.**

The appointment recognises his contribution to the field and establishes a platform to advance solutions to food security, nutrition and sustainable development challenges in South Africa and beyond.

> *Prof Amonsou's research journey began in Benin at the National Institute of Agricultural Research, before postgraduate studies in Ghana and South Africa. Since joining DUT in 2013, his work has focused on food chemistry, processing technologies and protein characterisation in underutilised crops.*

His research has increasingly focused on alternative protein sources such as pulses, fungi and insects, forming the foundation of his current programme in sustainable protein innovation.

"Personally, it represents the culmination of many years of dedication to research, teaching, and mentorship. Professionally, it provides a unique opportunity to build a strong research programme that addresses critical challenges in food and nutrition security," he shared.

Prof Amonsou said the appointment reflects the collective efforts of his students, colleagues, collaborators and DUT in fostering research excellence. "I see this SARChI Chair position as a platform to elevate DUT's contribution to national and global food innovation while creating opportunities for future generations of scientists."

The Chair focuses on four interconnected pillars: plant proteins, mycoprotein, insect protein, and advanced food design and commercialisation. "These pillars are integrated through food chemistry, processing technologies, product development, and commercialisation pathways," he explained.

His research aligns closely with South Africa's Decadal Plan priorities, particularly food security, the bioeconomy, sustainable industrialisation and inclusive economic growth. "The SARChI Chair position contributes by developing locally sourced protein ingredients, reducing dependence on imported proteins, supporting value addition to indigenous crops, and creating new opportunities within the agri-food sector. Through innovation, skills development, and industry partnerships, we aim to translate scientific discoveries into tangible socio-economic benefits," he added.

Over the next decade, Prof Amonsou aims to position South Africa as a leader in sustainable protein innovation through the development of new protein ingredients, food products and locally commercialised technologies. His vision includes creating jobs, supporting start-ups, adding value to African crops, and improving nutrition and food security in vulnerable communities.

His research is rooted in addressing challenges such as food insecurity, malnutrition and unemployment in KwaZulu-Natal, while offering solutions that can be scaled across South Africa and the continent.

Prof Amonsou said human capital development is a key focus of the SARChI Chair. "We will provide postgraduate students and postdoctoral fellows with access to state-of-the-art facilities, multidisciplinary research projects, international collaborations, industry exposure, and entrepreneurship training."

***"The SARChI Chair position will create an environment where students from diverse backgrounds can thrive through structured mentorship, research training, leadership development, and networking opportunities. I want students not only to become excellent researchers but also future leaders, innovators, and entrepreneurs who contribute meaningfully to society," he said.***

Prof Amonsou has led projects that resulted in intellectual property development, technology transfer activities, and prototype products for commercialisation. He also founded INOFID, a DUT-linked spin-off company focused on innovative food solutions.

"The Chair will strengthen this trajectory by supporting technology development, product prototyping, industry partnerships, and start-up creation, ensuring that research outcomes translate into economic and societal value," he shared.

> *By 2030, Prof Amonsou sees DUT emerging as one of Africa's leading universities in applied research and innovation, particularly in sustainable food systems, biotechnology, and alternative proteins.*



Professor Eric Oscar Amonsou

# DR KASUMBWE ADVANCES DRUG INNOVATION FOR COMPLEX DISEASES

WAHEEDA PETERS

**The urgent need for more effective and affordable treatments for diseases such as cancer, tuberculosis, malaria and diabetes motivated Durban University of Technology (DUT) researcher Dr Kabange Kasumbwe to pursue a career in medicinal chemistry and drug discovery.**

Based in DUT's Department of Biotechnology and Food Science, his research focuses on developing new therapeutic solutions using medicinal and organic chemistry, computational biology and green nanotechnology.

Dr Kasumbwe completed his academic training at DUT, progressing from an Honours degree in Biotechnology to a Master's and PhD, where his work on coumarin-based compounds led to a South African patent linked to tuberculosis treatment.

"This research led to a South African patent related to the treatment of tuberculosis, highlighting the translational and therapeutic potential of these compounds," he explained.

> *Building on this foundation, Dr Kasumbwe broadened his work beyond traditional drug development, recognising that complex diseases often require multi-target approaches. He now integrates computational modelling with laboratory research to develop more effective therapeutic solutions.*

As a postdoctoral researcher at DUT, he works at the intersection of chemistry, biology and computational science, designing multi-target drugs aimed at improving efficacy, safety and access for affected populations.

"In addition, I am increasingly integrating green nanotechnology approaches, particularly the development of environmentally sustainable nano-enabled drug delivery systems aimed at improving therapeutic efficacy while minimising environmental impact," he shared.

Among his recent scholarly achievements is the publication of the book chapter, *Cutting-Edge Molecularly Imprinted Polymer Technologies for Targeting Lung Cancer (Elsevier)*. "It explores innovative smart polymer systems for selective cancer targeting and highlights DUT's growing contribution to precision oncology and advanced biomaterials," he shared.

Over the next five to ten years, his goal is to contribute to the development of clinically relevant therapeutic candidates, particularly for the treatment of tuberculosis, cancer, and antimicrobial-resistant infections.

"A key objective of my research is to advance one or two lead compounds from early-stage discovery toward preclinical development, building on my previous work, including a patented anti-tuberculosis candidate. Ultimately, I aim to strengthen the pathway from laboratory-based research to translational and therapeutic applications," said Dr Kasumbwe.

Beyond drug development, Dr Kasumbwe focuses on affordable therapies for African populations and strengthening local pharmaceutical and biotechnology sectors through collaboration, innovation and technology transfer, with the broader goal of improving health outcomes and supporting the bioeconomy.

At DUT, he advances interdisciplinary research across chemistry, biology, computational science and green nanotechnology, developing locally relevant drug candidates and sustainable delivery systems.

His work also addresses antimicrobial resistance and neglected diseases, contributing to a growing African research voice in global health.

To nurture future scientists, he introduces undergraduate students to hands-on laboratory and computational research, helping them engage in meaningful, real-world scientific work from an early stage.

Dr Kasumbwe highlighted the vision underpinning his work: "My goal is to develop therapeutic drugs that are not only scientifically robust but also accessible and relevant to the populations most affected by disease. By integrating computational tools with experimental validation, we can accelerate drug discovery while improving precision and efficiency."

He also highlighted the value of collaboration: "Scientific progress today depends on collaboration across disciplines and borders. Being part of DUT enables me to contribute to a growing network of researchers working toward innovative and sustainable healthcare solutions."

Looking ahead, Dr Kasumbwe believes DUT is well positioned to become a leader in applied and translational research, particularly in health sciences, biotechnology and drug discovery. "With continued investment in research infrastructure, talent development, and international partnerships, DUT can significantly enhance its global research footprint," he said.



Dr Kabange Kasumbwe at work in the lab.

# FROM DIALYSIS CARE TO AI, DR GOVENDER REIMAGINES KIDNEY HEALTH

WAHEEDA PETERS

**After more than a decade in private renal care, Dr Shamanie Govender is transforming frontline clinical experience into research aimed at improving kidney care in South Africa.**

Now a lecturer in the Department of Biomedical and Clinical Technology at the Durban University of Technology (DUT), her work focuses on improving the quality of life for patients with Chronic Kidney Disease (CKD) through better pain management, caregiver support, and the integration of indigenous knowledge and artificial intelligence in healthcare.

> *Her contributions include recognition in the Mail & Guardian Top 200 Young South African Graduates (2022), the Recognition Award of Excellence for Milestone Achievement in nGAP (2025), and being named DUT Alumnus of the Month in November 2025.*

"My research focuses on Nephrology, specifically Chronic Kidney Disease (CKD)... I have published in DHET-accredited journals such as the Journal of Multidisciplinary Healthcare and the Journal of Medicinal Plants for Economic Development," she explained.

Dr Govender is currently involved in multidisciplinary projects at DUT, including an AI-integrated research study combining Health and Applied Sciences, and a collaborative study exploring the experiences of multidisciplinary engagement among health science students.

Her research aims to improve the quality of life for CKD patients through better pain management, caregiver education and wellness interventions, and the exploration of South African medicinal plants as complementary therapies.

"My inspiration comes from over 10 years in clinical practice. Witnessing dialysis patients' struggles with chronic pain and high medication costs compelled me to seek solutions that are clinically effective and socio-economically accessible," she shared.

Her work aligns with DUT's ENVISION2030 goals.

***"By researching affordable, indigenous-based treatments for CKD, I contribute to improving lives and livelihoods. Participation in the Big Rocks Project ensures DUT remains a leading university of technology by developing innovative study areas that respond to the evolving digital and healthcare landscape," she said.***

A breakthrough in her doctoral research highlighted the often-overlooked psychological and socio-economic challenges faced by primary caregivers of children with CKD.

"Caregiver wellness is critical in paediatric patient treatment. My research advocates for integrated support systems to prevent caregiver burnout, which directly impacts child health outcomes," she explained.

Dr Govender plans to integrate Artificial Intelligence into Health Sciences education and develop a formal Caregiver Support Framework for families of children with chronic illnesses.

*"My goal is to create multidisciplinary academic programmes that break down traditional silos, fostering collaboration across Health, Applied Sciences, and Technology to solve complex societal problems," she concluded.*



Dr Shamanie Govender

# DR FANIE NDLOVU CHAMPIONS AI-DRIVEN LEARNING AT DUT

WAHEEDA PETERS

**Dr Fanie Ndlovu, DUT alumnus, technician, social entrepreneur and founder of VarsityGenie, is helping position the University as a leader in Generative AI education and Fourth Industrial Revolution (4IR) innovation.**

Based in the Faculty of Accounting and Informatics, his work is grounded in the Engineering Practice Innovation Project (EPIP) model, a hands-on approach that turns DUT's ENVISION2030 strategy into practical, real-world learning experiences.

For Dr Ndlovu, EPIP is more than a teaching framework. It is a mindset that encourages students to learn by building, reflect through doing, and solve real challenges through innovation.

*"In my role as a technician under Executive Dean Professor Oludayo Olugbara, I support and co-develop several EPIP-driven research initiatives within our specialised labs and workshop in achieving Prof Olu vision of implementing EPIP."*

"One of these is Sgila Skeem, which he co-developed with Professor Olive Stumke, a Generative AI-powered learning companion developed through the EPIP framework. It assists students in engaging with their coursework by asking questions and receiving personalised explanations based on the lecturer's notes," Dr Ndlovu highlighted.

He added: "What makes Sgila Skeem even more special is its integration of IsiZulu translation, which promotes decolonised learning and ensures that technology reflects our South African identity and values."

Another pioneering initiative is VR Stock Taking, an immersive simulation. "Instead of simply reading about stock-taking, they step into a digital warehouse, walk through aisles, scan inventory, and perform auditing tasks, thus gaining hands-on experience through immersive learning. Both projects showcase the spirit of learning through innovation, a hallmark of EPIP, where students evolve from being consumers of knowledge to becoming creators of practical solutions," he shared.

Dr Ndlovu believes digital fluency is no longer optional. "In today's digital age, DUT students must develop digital fluency - the ability to adapt, create, and apply technology meaningfully and responsibly. A key focus area is Generative AI, which is rapidly transforming how we learn, work, and communicate. Through the EPIP model, we encourage students to experiment with tools like AI, but also use them responsibly, understanding ethics, data privacy, and the importance of originality and integrity in their digital creations," he explained.

*"Our mission is not just to produce employable graduates, but entrepreneurial graduates, those who can identify opportunities, lead innovation, and create jobs rather than only seek them. This directly supports DUT's ENVISION2030 goal of producing adaptive graduates who can initiate and respond to change," said Dr Ndlovu.*

He emphasised that his daily work activates ENVISION2030 in practical ways. “Rather than sitting in a strategy document, I make it real through projects that equip students with digital and problem-solving skills they can use immediately. Through the EPIP approach, I help students turn what they learn in class into something tangible - a working system, prototype, or research concept. It’s about showing them that innovation is not theory, it’s action,” he stated.

Dr Ndlovu works with Prof Olu, Ms Ugeshni Moodley, Professor Olive Stumke and Mr Dharmesh Bhagwan to integrate technology into teaching. “Every AI model trained, every VR headset tested, and every student mentored contributes to ENVISION2030’s goal of improving lives and livelihoods,” he expressed.

Looking ahead, Dr Ndlovu said:

> *“This next phase is about turning EPIP from a faculty initiative into a university-wide movement, grounded in ENVISION2030’s vision of improving lives and livelihoods. Through shared effort, DUT continues to be a space where reflection leads to innovation, and innovation leads to impact.”*



Dr Fanie Ndlovu

# DR THOBILE ZULU'S JOURNEY OF PURPOSE AND PERSEVERANCE

SINAMILE SITHOLE

**From a rural village in KwaMaphumulo to a doctoral qualification, Dr Thobile Zulu's story is one of resilience, determination and the transformative power of education. She is the first in her family to attend university and complete a PhD, breaking generational barriers in the process.**

Dr Zulu joined the Durban University of Technology (DUT) in 2006 as an HIV/AIDS Coordinator at the Student Counselling and Health Unit, where she has spent nearly two decades advancing student wellbeing and support services.

Now 56, she balances her professional life with family responsibilities as a wife, mother of four and grandmother of two. "Being a mother and grandmother has taught me patience, empathy and resilience, qualities that I bring into my work with students," she said.

Coming from an uneducated family, she became the first in both her immediate and extended family to earn a university degree and later a PhD. "I wanted to show my family and my community that where you come from does not limit what you can achieve," she explained.

Her academic journey began in 1992 at the former University of Natal (now the University of KwaZulu-Natal), where she studied Social Sciences. Although she initially aspired to become a Chartered Accountant, she found her calling in social sciences and went on to complete postgraduate studies in Human Resources Management, Applied Social Sciences and a Master's degree.

Her research explored access to health services for elderly people in rural communities, focusing on pensions, healthcare access and the impact of HIV. She later completed a Postgraduate Diploma in Monitoring and Evaluation at Stellenbosch University and a mentorship programme that prepared her for doctoral studies. "The mentorship programme was a turning point for me. It gave me the tools to tackle research with confidence and purpose."

In 2025, she completed her PhD at the University of South Africa (UNISA), focusing on how peer education programmes can strengthen student development in higher education. Her findings show that such programmes build confidence, leadership and communication skills while supporting inclusivity and personal growth.

Her doctoral journey was not without hardship, including the loss of close family members, but she remained committed to her goal.

> *"Every challenge I faced reminded me why I started this journey, which was to break the cycle and inspire others," she said.*

Beyond research, Dr Zulu's work at DUT addresses key student challenges including HIV, tuberculosis, gender-based violence and broader wellness and inclusion initiatives. She has also begun publishing work based on her doctoral study and hopes to contribute to higher education policy and programme development.

Looking ahead, she aims to continue growing academically, with aspirations toward a professorship. She encourages young people from rural and disadvantaged backgrounds to persevere. "If I could achieve a PhD, anyone can. You just need determination, faith and the courage to keep going," she said.



Dr Thobile Zulu

# DHET SITE VISIT BACKS DUT'S INFRASTRUCTURE PROGRESS

DR MATHEAKUENA MOHALE AND NIKIWE SUKAZI

**The Durban University of Technology (DUT) recently welcomed a Department of Higher Education and Training (DHET) delegation for a two-day infrastructure oversight visit, reaffirming the University's commitment to delivering major capital projects that support teaching, learning and student success.**

The visit formed part of the DHET's ongoing monitoring of infrastructure development across the higher education sector. Discussions focused on the progress of key projects, expenditure performance and plans to address delays affecting several developments.

Opening the engagement, Acting Deputy Vice-Chancellor: People and Operations, Dr Matheakuena Mohale, welcomed the delegation before handing proceedings to DHET representative Mr Donald Kubayi.

Mr Kubayi explained that the visit followed the Portfolio Committee's 2025 engagement with DUT and formed part of the Department's broader oversight of infrastructure investment. While noting that DUT had maintained strong expenditure performance, he said several major projects had experienced delays that required close monitoring.

Two of the University's largest infrastructure projects, DUT355 and DUT481, were temporarily halted following interventions by the Department of Employment and Labour and the eThekwini Municipality. Both projects were cleared to resume on 29 May 2026 and are now progressing, with DUT355 expected to be completed during the third quarter of 2026 and DUT481 scheduled for completion towards the end of 2027.

Mr Kubayi said the DHET is engaging National Treasury on infrastructure allocations for the 2027-2030 funding cycle. Given the limited budget available, priority will be given to ministerial projects and institutions that demonstrate sound expenditure and project delivery.

"When we look at the expenditure, we see that DUT has 100% expenditure but the two building projects had challenges. We would like to see DUT moving towards the completion of those projects," said Kubayi.

The second day of the visit included inspections of the Midlands Campus, where Acting Senior Director: Real Estate Management, Mr Sandile Chaphi, provided updates on the Indumiso Engineering Buildings and the Imbali Lodge development.

Addressing structural concerns identified in the Engineering Buildings, Mr Chaphi explained that the defects were linked to work undertaken by a contractor currently involved in arbitration with the University. A new contractor has since been appointed to complete the necessary repairs, while DUT continues working with consulting engineers to verify the structural assessments and ensure the buildings meet the required standards.

Mr Kubayi noted that the Imbali Precinct projects, including student accommodation developments, had also affected overall project performance. However, he confirmed that the municipality had approved the reallocation of funding originally intended for Imbali Lodge towards new student residences, creating opportunities for future accommodation developments.

"As I have mentioned earlier, our focus is mostly on infrastructure. I want to see the institution doing well because for the most part on the cycle,

DUT has been doing well. The primary challenges that were holding DUT back are; Imbali Precinct Project, Student Centre and the Engineering Buildings," said Kubayi.

Student accommodation remained a key focus throughout the visit. Following concerns previously raised by the Portfolio Committee, DUT has introduced a Student Residence Renovation Programme aimed at improving accommodation standards, health and safety compliance, and the overall student living experience.

Mr Kubayi encouraged the University to continue exploring interim solutions to address student housing shortages while longer-term developments are implemented.

Responding on behalf of the University, Mr Chaphi outlined options under consideration, including land subdivision and a review of DUT's campus master plan to identify suitable sites for future residence developments.

Dr Mohale added that the Executive Management Committee had recently approved a comprehensive student housing development framework that identifies multiple approaches to increasing bed capacity. These include developing available land on and around DUT campuses while strengthening collaboration with the eThekwini and Msunduzi municipalities to align future developments with municipal spatial plans.

The visit concluded with Dr Mohale and Midlands Campus Director Dr Nonhlanhla Mthiyane thanking the DHET delegation for its continued guidance and support, reaffirming DUT's commitment to delivering infrastructure that strengthens the University's academic mission and enhances the student experience.



Dr Matheakuena Mohale and Mr Donald Kubayi | Photographer: Khulasande Tshayile

# DUT RUNNERS RISE TO THE COMRADES CHALLENGE

SIMANGELE ZUMA AND THUBELIHLE DUMAKUDE

**The Durban University of Technology (DUT) community turned out in force to support staff, students and alumni who took on the 2026 Comrades Marathon on Sunday, 14 June.**

Supporters lined the route at Hillcrest, Cato Ridge, Mkondeni and the finish at Scottsville, creating a sea of DUT pride along the gruelling Up Run.

Thirty DUT runners tackled the demanding 85.8 km route from Durban to Pietermaritzburg, joining thousands of athletes from around the world. Embracing this year's theme, "Ska Fela Moya" (Don't Give Up), they demonstrated determination, resilience and the University's commitment to health, wellness and excellence.

Among the participants was DUT Chief Financial Officer, Mr Siboniso Shabalala, whose participation reflected the University's culture of encouraging staff and students to embrace personal challenges.

DUT leadership joined supporters at the Cato Ridge station, including Registrar Dr Maditsane Nkonoane, Senior Director: Human Capital Services Mr Victor Mothobi, and Council members Dr Nonhlanhla Makhanya and Mr Zakhele Gumede.

Welcoming supporters, Dr Nkonoane thanked staff and students for braving the cold to cheer on the runners.

"I would like to welcome all of you to our growing supporters' team, but most importantly to wish you well. This is a day we are all going to enjoy, and as we move forward, we are also going to build memories. We are going to do it the DUT way. We told our runners to run their race and write their story. We hope that next year, we will grow even bigger as it will be the centenary of the Comrades Marathon," he said.

First across the finish line for DUT was Mr Lindokuhle Manyoni, Road Running Coordinator and a PhD candidate in Chemical Engineering. He completed the race in an impressive 07:10:20, improving on his 2025 time of 07:23:00 and setting a new benchmark for the DUT Athletics Club.

Speaking after the race, Manyoni said that, based on the plan he developed with his coach, he was aiming for a sub seven hour finish. Unfortunately, he sustained injuries to his right leg a few weeks before the Comrades Marathon. Although he did not achieve his target, he was pleased to set a new record for the DUT Athletics Club.

"Nonetheless, I'm not focused on my results. I'm more pleased and encouraged by the club's performance, particularly Lubabalo Mbangatha and Lauren Snell Hillermann, who both delivered outstanding performances. One earned a silver medal on his first Comrades Marathon attempt, while the other obtained a Bill Rowan medal, becoming the first woman to achieve such a result in the club's colours. Most of the club members also improved on last year's times, which is something worth celebrating," said Manyoni.

Among DUT's standout performances were Information Systems lecturer and first-time Comrades runner Mr Lubabalo Mbangatha, who earned a silver medal with a time of 07:18:53, and former Student Transport Manager Mr Steven Mkhize, who also secured a silver medal in 07:24:02.

Leading the DUT women was Dr Lauren Snell Hillermann, who finished in an impressive 08:30:33, improving by almost an hour on her 2025 time despite competing with an injury.

Student runner Ngceba Kenisa also impressed, finishing in 07:38:54 and improving on last year's performance, while recent Public Administration graduate Nqobile Mngadi completed the race in a commendable 09:50:02.

As the runners recover from the Ultimate Human Race, DUT celebrates their commitment, resilience and the pride with which they represented the University on one of the world's most demanding ultramarathons.








































Centre: DUT runners at the 2026 Comrades Marathon. Left: First DUT finisher, Lindokuhle Manyoni. Above: Mr Victor Mothobi, Dr Maditsane Nkonoane and Mr Siboniso Shabalala supporting the team. | Photographers: Khulasande Tshayile and S'bonelo Dlamini.

# DUT AND JAMK DEEPEN INNOVATION TIES

SAMKELO MTSHALI

**The Durban University of Technology (DUT) and Finland's JAMK University of Applied Sciences have strengthened their longstanding partnership through discussions aimed at expanding collaboration in entrepreneurship, innovation and international academic exchange.**

Hosted by the innobiz DUT Centre for Entrepreneurship and Innovation at the Indumiso Campus, the engagement explored opportunities in entrepreneurship development, student and staff mobility, research collaboration and innovation ecosystems. The visit reinforced both institutions' shared commitment to preparing graduates to thrive in an increasingly innovation-driven global economy.

> *Welcoming the delegation, DUT Ecotourism Senior Lecturer Ms Lorna McCullough highlighted entrepreneurship and innovation as central pillars of the University's ENVISION2030 strategy, noting their importance in driving institutional growth and student success.*

Leading the Finnish delegation, Dr Sunday Adewale Olayele emphasised the value of multidisciplinary collaboration in addressing complex global challenges. He commended DUT's work in entrepreneurship development and encouraged universities to embrace social entrepreneurship, innovation-led learning and stronger links between students, industry and funding opportunities.

innobiz DUT Centre Manager Ms Nontokozo Ngcobo said the visit marked another important step in strengthening the partnership between the two institutions while creating new opportunities for collaborative projects.

She noted that DUT's large and diverse student population complements JAMK's extensive international networks and innovation infrastructure, creating valuable opportunities for student exchanges, joint academic initiatives and knowledge sharing.

JAMK artificial intelligence and digital innovation specialist Mr Ouli Pekka shared insights into Finland's innovation ecosystem, explaining how technology is applied to address societal and economic challenges. He encouraged students to use the university environment to test ideas, experiment with new technologies and develop practical solutions that respond to real-world needs.

Senior Lecturer at the JAMK School of Business, Mr Jarkko Immonen, spoke about the University's entrepreneurial approach to teaching, where students are encouraged and supported to establish their own businesses while studying. He noted that several successful student-led companies have already emerged from the programme.

The partnership has already delivered tangible benefits. DUT exchange programme participant and founder of the streetwear brand Enigmatic Cotton, Mr Luyanda Majozi, reflected on his experience in Finland, saying it broadened his entrepreneurial outlook and exposed him to different approaches to innovation and business development. He added that the

experience challenged him personally and professionally while equipping him with practical insights he now applies to his business in South Africa.

Dr Xolani Mhlongo from DUT's Department of Nursing said the department is exploring ways to integrate entrepreneurship into its curriculum to help graduates create opportunities in response to unemployment challenges.

By encouraging students to develop innovative ideas with commercial potential, the department hopes to foster a stronger culture of entrepreneurship across the health sciences.

The visit reaffirmed DUT and JAMK's shared commitment to expanding international collaboration, strengthening innovation ecosystems and equipping students with the entrepreneurial skills, global perspectives and industry connections needed to succeed in a rapidly changing world.



The innobiz DUT staff, led by Ms Nontokozo Ngcobo, alongside the visiting delegation from JAMK, Finland | Photographer: Khonzinkosi Magcaba

# DUT STUDENTS SHINE AT CHINESE BRIDGE COMPETITION

RUIYA MA / DUT CONFUCIUS INSTITUTE

**Durban University of Technology (DUT) students from the Confucius Institute have achieved a historic double victory at the 25th "Chinese Bridge" Chinese Proficiency Competition for Foreign College Students, South African Regional Final, held at the University of the Western Cape on 14 May 2026.**

The competition, themed "One World, One Family," showcased the linguistic talent and personal journeys of participants from across South Africa, with DUT students taking first and second place.

First Prize winner, Sixolise Tshobonga, impressed judges with her speech *Dancing Towards a Chinese Dream*, sharing how a Mid-Autumn Festival performance by Beijing Dance Academy students inspired her passion for Mandarin and led to lasting cross-cultural connections. She will now represent South Africa in the global finals in China.

Second Prize winner, Aphile Ngcobo, highlighted the social impact of language learning through his experience studying "Juncao Technology" at Fujian Agriculture and Forestry University. He has since begun cultivating mushrooms locally using the method, with a focus on poverty alleviation and community empowerment.

This year's competition marked the 25th anniversary of the "Chinese Bridge" initiative and a decade since Mandarin was introduced into South Africa's national curriculum. More than 50 applicants were narrowed down to 22 finalists from seven Confucius Institutes nationwide.

In a video address, Chinese Ambassador to South Africa His Excellency Wu Peng described the competition as a "Triple Bridge" connecting language, culture and friendship, encouraging students to serve as ambassadors of China–South Africa relations.

University of the Western Cape Rector and Vice-Chancellor Professor Robert Balfour told attendees that learning Mandarin transforms China from "a distant country" into "a very close neighbour," adding that language serves as "a bridge into insight, a bridge into inclusion, a bridge into understanding."

> *DUT's success aligns with its ENVISION2030 strategy, reinforcing internationalisation and cultural exchange while preparing students to engage meaningfully in a globally connected world.*




DUT winners at the 25th "Chinese Bridge" Chinese Proficiency Competition for Foreign College Students.

# STRENGTHENING TIES WITH TOP FEEDER SCHOOL, PHAMBILI HIGH

PHIWAYINKOSI SIBIYA

**The Durban University of Technology (DUT) Student Recruitment Unit visited Phambili High School in Umbilo in June to engage Grade 12 learners on study opportunities, career pathways and the university application process.**

The visit also recognised Phambili High School as DUT's second-highest feeder school for the 2026 academic year, reflecting the strong and growing relationship between the school and the University.

Building on a successful engagement in 2025, the recruitment team returned to encourage learners to pursue higher education and make informed career choices, following increased applications and registrations in STEM programmes at DUT.

DUT Student Recruitment Officer Mr Michael Zulu outlined the application process through the Central Applications Office (CAO), while also providing an overview of available programmes and entry requirements across disciplines.

Learners received prospectuses and were encouraged to focus on achieving strong academic results to secure access to higher education opportunities.

Third-year Bachelor of Health Sciences in Environmental Health student Ms Aphiwe Khanyile motivated learners to remain focused, persevere through challenges and stay committed to their academic goals.

Phambili High School Deputy Principal Ms Zandile Langa thanked DUT for recognising the school's performance, noting its 91.4% matric pass rate in 2025 and its position as a leading feeder school. "This year at Phambili High School, we aim to become the leading feeder school to DUT. We have 561 learners who are committed to achieving strong academic results and reaching their full potential," said Langa.



Educator Ms Taniq Khuzwayo said the engagement gave learners direct access to accurate information about higher education and future career pathways.

Learner Lusanda Phakathi, Grade 12C, said the session was motivating and helped her better understand her options, adding that she now intends to apply for admission in 2027.

"DUT representatives explained everything clearly and helped us understand the opportunities available at the University. The session was informative, engaging and inspiring," she said.

The visit forms part of DUT's ongoing commitment to strengthening feeder school relationships and supporting learners as they prepare for higher education and future careers.








Learners from Phambili High School engage with representatives from DUT's Student Recruitment Unit during an information-sharing session aimed at promoting higher education opportunities and academic excellence | Photographer: S'bonelo Dlamini


BLOCK C
LECTURE THEATRES




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