



# NSTF-South32 Awards 2023-2024

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## Honouring SA's leading innovators in science, engineering and technology

THE National Science and Technology Forum (NSTF) held its prestigious annual NSTF-South32 Awards to honour and recognise outstanding South African contributions to the world of science, engineering and technology (SET).

South Africa's first science awards and dubbed the "Science Oscars", the NSTF-South32 Awards marks the largest SET and innovation awards in the country. It is a celebration of South African ingenuity and excellence through this flagship project of the NSTF. The gala evening took place on Thursday, July 11 and was live-streamed from Johannesburg and Cape Town.

The NSTF Awards was established in 1998 as a collaborative effort to recognise teams, organisations and individuals who have made exceptional efforts in their fields. Outstanding contributions to SET and innovation were awarded and celebrated in the following broad areas, under 15 categories:

- Scientific research
- Innovation and development
- Management and related activities
- Capacity development in engineering research
- Environmental sustainability and biodiversity conservation
- Science diplomacy
- Medical research
- Water research and innovation
- Data for research
- Science communication

**Special Annual Theme Award** – The NSTF theme for 2024 is the Fourth Industrial Revolution (4IR) in South Africa.

"My view is that the future is bright and exciting, if we approach it with open minds and arms. The challenges faced by the world are profound. The threats of unprecedented outbreaks, natural disasters, climate change, drought, energy and food



insecurity and soon remain priorities demanding the world's attention and the need to work collaboratively and in partnership," said Prof Jeffrey Mphahlele, NSTF chairperson.

"Collectively we are making progress. Science is at the heart of providing solutions to these myriad challenges. Amid these complexities, the NSTF continues to evolve and remain relevant. It always strives to be a moderate force that participates in public engagements and discourses with a view of shaping and influencing public policies for the benefit of society."

"The call is loud and clear – we need to build a society that looks into the future."

The NSTF is the most representative multi-stakeholder non-profit forum promoting SET and innovation. It showcases the research and development capacity of South Africa.

The excellent output of the winners supports South Africa's advancement, economic growth and the social upliftment of our people.

## 2023/2024 WINNERS

- **Lifetime Award**  
Prof Ben-Erik van Wyk, UJ
- **TW Kambule-NSTF Award: Researcher**  
Prof Patience Mthunzi-Kufa, UNISA
- **TW Kambule-NSTF Award: Emerging Researcher**  
Dr Thilose E Laphoto, Wits  
Prof Tebogo Mashifana, UJ
- **Management Award**  
Prof Bernard Slippers, UP
- **Engineering Research Capacity Development Award**  
Prof Claudia Polese, Wits  
Prof Emmanuel Iwuoha, UWC
- **NSTF-Water Research Commission (WRC) Award**  
Prof Timothy Dube, UWC
- **NSTF-SAMRC Clinician-Scientist Award**  
Dr June Fabian, Wits
- **NSTF-TIA Green Economy Award**  
Prof Linda Godfrey, NWU
- **NSTF-SDCIA Science Diplomacy for Africa Award**  
Prof Irvy (Igle) Gledhill, Wits
- **Data for Research Award**  
ulwazi Node, SAEON Open Data Platform, NRF
- **Innovation Award: Corporate Organisation**  
Nuclear Medicine Research Infrastructure NPC (NuMeK)
- **NSTF-NHFM Innovation Award: Small, Medium and Micro Enterprise**  
Jonker Sailplanes
- **Communication Award**  
Prof Jennifer Fitchett, Wits
- **Non-Governmental Organisation Award**  
OLICO Maths Education
- **Special Annual Theme Award – 4IR in SA**  
Inter-University Institute for Data Intensive Astronomy (IDIA)

## DUT – Your gateway to a brighter future

LOOKING to shape a brighter future? Look no further than the Durban University of Technology (DUT), a globally recognised institution that stands at the forefront of higher education, technological training, research, entrepreneurship and innovation. For those considering their preferred university for 2025, DUT is the perfect choice.

Situated in KwaZulu-Natal, DUT boasts seven strategically located campuses in Durban and Pietermaritzburg. The university offers six faculties covering a diverse range of disciplines, including Accounting and Informatics, Applied Sciences, Management Sciences, Engineering and the Built Environment, Health Sciences, and Arts and Design. With 20 diverse research focus areas, DUT actively promotes cutting-edge research aimed at addressing real-world challenges.

DUT's success extends beyond academic achievements, emphasising holistic development and entrepreneurship. The Faculty of Management Sciences hosts

the DUT Business School, which focuses on applied business practices, equipping future leaders with the skills to drive socio-economic transformation.

Embedded in DUT's essence is the ENVISION2030 strategy, instituted in 2020. This framework, deeply rooted in core values of transparency, honesty, integrity, respect and accountability along with the principles of fairness, professionalism, commitment, compassion and excellence, forms the foundation of the institution. The university's tagline – "CREATIVE, DISTINCTIVE, IMPACTFUL" – promises students not just an education, but a holistic experience. Those propelled by a quest for knowledge, a thirst for technological training or an entrepreneurial spirit will find DUT an unmatched pedestal. It is not just an academic establishment; it's a community committed to innovation, entrepreneurship – and above all, shaping individuals ready to leave an indelible mark on the world.

For those with an entrepreneurial spirit, DUT offers the Innobiz DUT Centre

for Entrepreneurship and Innovation. This centre provides both practical and theoretical entrepreneurial learning opportunities aimed at producing innovative, problem-solving entrepreneurs ready to make a positive impact on society.

Make DUT your preferred university of choice and embark on a transformative educational journey that nurtures your potential and prepares you to make a positive impact on the world. Dare to dream big and choose DUT as your academic home for a future full of possibilities. With undergraduate and postgraduate applications currently open, aspiring scholars have a wide array of programmes to choose from, tailored to their passions and career goals.

For comprehensive information on DUT's programme offerings, admission requirements and application procedures, visit [www.dut.ac.za](http://www.dut.ac.za)

DUT ENVISION2030...  
CREATIVE. DISTINCTIVE.  
IMPACTFUL.

## UWC research team soars high

THE University of Western Cape (UWC) is delighted to extend its heartfelt congratulations to its team of researchers for achieving remarkable success at the 26th annual NSTF-South32 Awards.

"The prestigious recognition of two individual awards and one group award underscores the exceptional contributions of the University of the Western Cape's research community. Special accolades go to Professor Timothy Dube, director of the Institute for Water Studies, and Professor Emmanuel Iwuoha, SARCHI chair for nanoelectrochemistry and sensor technology, for their outstanding accomplishments. Your innovative research not only advances scientific knowledge, but also plays a pivotal role in addressing critical global challenges," said Professor José Prant, vice-chancellor: research & innovation.

Known as South Africa's "Science Oscars", the awards are the largest, most comprehensive and coveted national recognition in the field. They honour outstanding contributions to science, engineering, technology (SET) and innovation by individuals, teams and organisations across South Africa. The categories span a diverse range, including experienced scientists, engineers, clinician scientists, innovators, science communicators, engineering capacity developers, research managers and data curators. Now the awards have been expanded to include science diplomacy.

The "Science Oscars" winners from UWC are:  
• Prof Timothy Dube, director of the Institute for Water Studies, who

was honoured with the NSTF-Water Research Commission Award for his pioneering and innovative methods using satellite technology merged with machine learning (AI) to monitor water resources in semi-arid regions. His work significantly enhances ecological sustainability and community resilience.

• Prof Emmanuel Iwuoha, SARCHI chair for nanoelectrochemistry and sensor technology, who received the Engineering Research Capacity Development Award for his ground-breaking research on disease diagnostic sensor devices, lithium-ion battery/supercapacitors and solar cell technology. His leadership at UWC's SensorLab has fostered significant advancements in these critical areas.

• Inter-University Institute for Data Intensive Astronomy (IDIA), a collaborative effort between UWC, the University of Cape Town (UCT) and the University of Pretoria (UP), won the Special Annual Theme Award for their cutting-edge infrastructure and management, facilitating global collaboration in astronomy. This initiative empowers researchers to analyse complex SET data with unprecedented efficiency.

"Your dedication to excellence and innovation is a testament to how UWC is making research count in meaningful ways. Congratulations once again to all the nominees, award winners and the UWC community. Your achievements inspire us all and demonstrate the profound impact that dedicated research and innovation can have on our society and our planet."



## RECOGNISING, CELEBRATING AND REWARDING EXCELLENCE IN SCIENCE, ENGINEERING, TECHNOLOGY (SET) AND INNOVATION IN SOUTH AFRICA!

DUT congratulates all the winners of the 2023/2024 NSTF-South32 Awards, as well as the three DUT researchers who were finalists: **Dr Emmanuel Kweiner Tetteh**, **Professor Ajay Mishra**, and **Professor Saheed Sabiu**.



From left to right: Professor Saheed Sabiu, Professor Ajay Mishra, Dr Emmanuel Kweiner Tetteh.

**Dr Emmanuel Kweiner Tetteh**, a Research Fellow and Principal Investigator with the Green Engineering Research Group (GERG); **Professor Ajay Mishra**, a Professor in the Department of Chemistry; and **Professor Saheed Sabiu**, an Associate Professor in the Department of Biotechnology and Food Science, were recognised amongst other individuals or organisations for their outstanding contributions to science, engineering, technology (SET), and innovation across 14 different categories.

**Dr Tetteh and Professor Sabiu** were nominated in the TW Kambule-NSTF Award: Emerging Researcher category, which honours individuals for up to six years of research work in South Africa. Meanwhile, **Professor Mishra** was nominated in the NSTF-Water Research Commission Award category, which recognises leadership and impact in sustainable water management over the last five to 10 years.

**Professor Sabiu**, who leads the Computational and Systems Biology Research Group, focuses on bioprospecting for therapeutic targets against degenerative and microbial diseases. He expressed elation and humility upon being named a finalist, emphasising the importance of such awards in highlighting relevant research at DUT.

In 2023, **Professor Sabiu** had already received accolades at the DUT ENVISION2030 Institutional Awards, including Faculty Researcher of the Year (Gold) and Emerging Researcher of the Year.

**Professor Mishra** described the NSTF Awards as pivotal in representing scientific achievement with pride, while **Dr Tetteh** credited his nomination to his significant contributions in SET and innovation in South Africa, underscoring the recognition of his hard work and dedication.



DURBAN UNIVERSITY OF TECHNOLOGY  
INUVESI YASETHEKWINI YEZOBUCHWEPHESHE



The Deputy Vice-Chancellor, Research, Innovation, and Engagement at DUT, Professor Fulufhelo Nemahohla, extends congratulations to the finalists, highlighting their exceptional contributions and the university's commitment to impactful research and innovation.

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## UWC's Science Oscar Winners



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Become a winner and apply for postgraduate study at [www.uwc.ac.za](http://www.uwc.ac.za)