



S.E.T. for socio-economic growth

**National Science and Technology Forum (NSTF)**

## media release

### **Celebrating National Women's Day 2023**

#### **Honouring remarkable women in science, engineering, technology (SET) and innovation**

Every year on 9 August, South Africa (SA) unites to commemorate National Women's Day, a significant occasion that pays tribute to the historic women's march of 1956, when women protested against the carrying of pass books. This year, Women's Month takes centre stage under the theme: "Women's Socio-Economic Rights and Empowerment: Building Back Better for Women's Improved Resilience." As part of the global campaign for generation equality, South Africa joins hands with the world in the pursuit of achieving gender equality by 2030.

**Women champions in SET and innovation:** Take a moment in this month to focus on the [National Science and Technology Forum \(NSTF\)](#)'s recognition and celebration of **four exceptional female scientists of South Africa**, who were 'crowned' at the prestigious 2023 [NSTF-South32 Awards](#). These remarkable individuals have made extraordinary contributions to the fields of SET and innovation in SA and have proven themselves as leaders in their fields.

**The 'Science Oscars' of SA:** The [hybrid gala event of the NSTF-South32 Awards](#), held on Thursday 13 July 2023 in two cities (Cape Town and Johannesburg), marked the 25th anniversary of the awards recognising excellence in SA through this flagship project of the NSTF. The event showcased the brilliance and ingenuity of these outstanding women, whose work inspires and paves the way for not only young people, but also a brighter socio-economic future in SA.

**Without further ado, let's applaud the remarkable 2022/2023 NSTF-South32 women award [winners](#), who have blazed a trail in their respective fields and are leading the charge towards progress, gender equality, and a sustainable future:**

**TW Kambule-NSTF Award: Emerging Researcher**  
Prize sponsor: South African Young Academy of Science (SAYAS)



**Prof Usisipho Feleni** – Associate Professor and Thematic Area Leader: Applied Electrochemistry, Institute for Nanotechnology and Water Sustainability, University of South Africa (UNISA)

For her contribution in electrochemistry, with emphasis on electro-analytical sensors and biosensors. Her work contributes to more effective electrochemical sensing and signalling of diseases such as HIV, TB and cancer, as well as monitoring water contamination.

*“I had lost an aunt at a very young age who was taking this (HIV) medication,” she says. Now, she wants to find ways to monitor the concentration of any drug that would affect humans.*

**Engineering Research Capacity Development Awards**  
Sponsor: Eskom since 2003



**Prof Nosipho Moloto** – DSI/NRF/Nedbank SARCHI Chair in Energy Materials; and Research Professor: Inorganic Chemistry, Wits; and Deputy Director: African Research

*“We are few creatures ... in this male-dominated sector,” says Moloto. Black women engineers are thriving at Wits under the leadership of their ‘big sister’, Prof Nosipho Moloto. Her projects include creating technologies for faster wound healing and renewable energy. Globally, only 22% of materials science and engineering researchers are female, but Moloto’s ‘Nanoweb’ group of principal investigators are 83% black women, and more than half of the group’s postgraduates are female. She knows how hard it is for women to work as female engineering academics, and yet women bring different perspectives that can be very valuable. She says women can often be more meticulous, thoughtful and caring.*

Universities Alliance, Centre of Excellence in Materials, Energy and Nanotechnology, Wits

Her research can be used in the development of affordable solutions for the production of clean water, renewable and clean energy, rapid diagnostics of diseases and fast and easy to operate sensors.

**NSTF-SAMRC Clinician-Scientist Award**

Sponsor: South African Medical Research Council (SAMRC)



**Prof Salome Maswime** – obstetrician, gynaecologist and Head: Global Surgery, Dept of Medicine, University of Cape Town

*“These are simple, system issues,” says Prof Maswime, who wants to see the African community as a whole receive safe and timely surgical care, especially pregnant women. ‘Global surgery’ combines several disciplines to provide better and equitable surgical care. This is critical in Africa, where maternal mortality remains high. She says it is about how to capacitate healthcare workers looking after patients, to make better and timely decisions. Maswime turned to research to improve outcomes for mothers who undergo caesarean sections. She went on to become one of the first experts to establish global surgery as its own discipline in Africa.*

For a contribution through pioneering the field of global surgery in Africa as part of a drive for greater equity, and access to, much-needed surgical care and finding measures to reduce the maternal mortality from caesarean sections in SA.

## Data for Research Award



**Dr Helen Dallas**, as the Team Leader of the Freshwater Biodiversity Information System (FBIS), and Executive Director: Freshwater Research Centre, who built FBIS in partnership with Kartoza.

For the development of a powerful, open-access system for hosting, analysing and serving freshwater biodiversity data for SA, in order to facilitate freshwater decision-making.

**“We wanted to create a space that brought all of this information together; all of these huge and valuable data records, to be reused multiple times for different purposes,” says Dr Dallas. She says before they built FBIS, data collected by researchers and students over the years would often “get stuck on a shelf”, or in a spreadsheet on someone’s computer. “That shouldn’t be the end of the journey,” she says. Having been in this field for over 30 years, Dallas says many people had approached her informally for information about freshwater biodiversity. Many also struggled to easily find such information elsewhere, and so her team quickly realised that there is demand for a formal, easy-to-use ‘dashboard’ to access all of the scientific data we have about freshwater biodiversity in SA.**

As we celebrate National Women's Day and Women's Month, let us not only honour the past achievements of women but also look forward to a future where gender equality is a reality in every aspect of society. The triumphs of these brilliant scientists serve as a testament to the indomitable spirit of women in SA. They have a vital role in driving progress and positive change in the nation's scientific landscape. Let us unite in empowering women to continue their remarkable contributions to SET and innovation for the betterment of society and the world at large.

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## About the NSTF

The National Science and Technology Forum (NSTF), established in 1995:

- is a broadly-representative stakeholder body for all science, engineering and technology (SET) and innovation organisations in South Africa
- gathers stakeholders around burning issues of national and global interest, across the public and private sectors, including matters of public policy
- includes a network of professional societies in SET and STEM education (STEM = science, technology, engineering and mathematics) - the NSTF proSET membership sector.
- recognises, awards and profiles the outstanding contributions of individuals and groups to SET and innovation through the prestigious NSTF Awards
- runs and supports collaborative projects and youth outreach, including recognition of top performance in mathematics and science, role modelling, bursary and STEM career information
- runs and supports the STEMulator.org which attracts youth and educators to Explore>Discover>Learn the world of STEM including careers. (Established by NSTF proSET)

### For more information

[www.nstf.org.za](http://www.nstf.org.za)

E-mail: [enquiries@nstf.org.za](mailto:enquiries@nstf.org.za) / [media@nstf.org.za](mailto:media@nstf.org.za)

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