



S.E.T. for socio-economic growth

National Science and Technology Forum (NSTF)

eNews

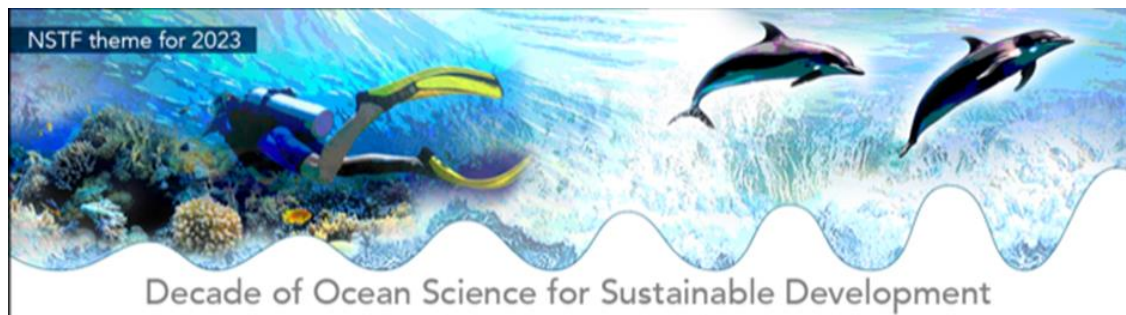
NSTF News

Nominees for the NSTF-South32 Awards announced

Nominees: The [nominees](#) for the 2022/2023 NSTF-South32 Awards for outstanding contributions in science, engineering, technology (SET) and innovation in South Africa have been announced. Adjudication took place on 8 May and the finalists will be announced soon on e-mail and the NSTF website.

25th anniversary of the NSTF Awards: This year's Silver Jubilee of the [NSTF Awards](#) will be celebrated at the Awards Gala Dinners taking place simultaneously in Cape Town and Johannesburg on **Thursday, 13 July 2023**, by live broadcast via the NSTF YouTube channel. Subscribe to the '[National Science and Technology Forum \(NSTF\)](#)' channel to join the audiences in both cities as we honour the finalists and celebrate the winners.

Today's research ... tomorrow's innovation



NSTF Discussion Forum news

The presentations delivered at the [Pitfalls of Artificial Intelligence \(AI\)](#) of 18-19 May 2023 are now available. The event took place in collaboration with [proSET](#) (Professionals in science, engineering and technology), the [professional societies sector](#) of the NSTF. Watch your mailbox for the media release summarising the salient points and outcomes.

The discussion of **South Africa's electricity crisis** is planned for 22-23 August 2023. In the meantime, consider the discussion of the '[Loadshedding and](#)

STEMulator – new mining tile

The [STEMulator](#) will soon feature a mining tile courtesy of South32. A big thank you to Dr Tania Marshall for the enthusiastic support and supply of educational content related to geology and mining. Calling all mining stakeholders to assist with information, graphics and digital animations to make this tile as appealing as possible to youngsters. [Read more.](#)

The [STEMulator.org](#) is a virtual landscape to Explore>Discover>Learn packed with animated STEM content. Take a two minute test-drive and click, click, click to see the hidden world revealed - you'll be amazed. To

[power cuts – what is really going on?](#)
held in October 2021 for some
background on the topic.

The NSTF [Science Councils and Statutory Bodies Sector](#) Committee is planning a discussion forum on how these organisations contribute to **South Africa's sustainable socio-economic growth**, on 17-18 October 2023.

Make your voice heard and join in!

Share 'n Dare: Career talks by NSTF-South32 Award winners

The NSTF's [Share 'n Dare programme](#) provides platforms for [NSTF-South32 Award winners](#) to act as role models and ambassadors for science, engineering, technology (SET), and innovation. The following career talk videos of 2022 winners are now available:

Meet hydrometallurgical engineer Prof Selo Ndlovu

Prof Selo Ndlovu, Professor: Metallurgical and Materials Engineering, University of the Witwatersrand received the Engineering Research Capacity Development Award for her work as a hydrometallurgical engineer, focused on ensuring a sustainable future supply of metals through improved processes and capacity. View the [video](#) to find out about this profession.

Meet virologist and immunologist Dr Jinal Bhiman

A team of scientists at the Network for Genomics Surveillance in South Africa (NGS-SA) won the 2022 Data for Research Award for their ground-breaking work with SARS-CoV-2. The Co-Founders of NGS-SA are **Dr Jinal Bhiman**, Scientific Lead: Global Immunology and Immune Sequencing for Epidemic Response South Africa (GIISER-SA); and **Prof Tulio de Oliveira**, Professor: Bioinformatics, School for Data Science and Computational Thinking, Stellenbosch University. The team, which consists of virologists, scientists, bioinformaticians and clinicians was responsible for the discovery of both the Beta and Omicron variants of the virus. View the [video](#) in which Dr Bhiman talks about her work.

Please spread the word of these talks, which highlight wonderful career opportunities in STEM among young people. (STEM = science, technology, engineering and mathematics.)

SET for knowledge driven solutions!

Welcome to new members

The NSTF welcomes the following new members:

- [South African National Energy Development Institute](#) (SANEDI) under the State Owned Enterprises sector
- [Cengen \(Pty\) Ltd](#) under the Business sector
- [Red Meat Industry Services](#) (RMIS) under the Civil Society/NPOs/NGOs

contribute, contact [Ms Kgaugelo Pule](#) and help us ensure the next generation of STEM learners.

Explore>Discover>Learn



Explore > Discover > Learn

SET for life!

Bursaries available

Visit the NSTF [Bursary Directory](#) for the latest available bursaries in science, engineering and technology (SET):

- [Rumdel Cape Bursary](#) (Deadline: 31 May 2023)
- [Afrimat Bursary Programme](#) (Deadline: 28 July 2023)
- [Career Wise Bursary Programmes](#) (No deadline. Applications accepted at any time.)

Join the NSTF's existing cohort of over 120 member organisations involved in science, engineering, technology (SET) and innovation in South Africa. Visit the [Membership section](#) on the website for more information.

SET for socio-economic prosperity!



proSET (Professionals in science, engineering and technology) is a sector of the NSTF currently representing 47 professional and learned societies. This section shares news about [current members](#) and introduces new members of the [proSET sector](#).

- **Southern African Institute of Industrial Engineering Welcomes new President**

The 2023 Annual General Meeting of the [Southern African Institute of Industrial Engineering](#) (SAIIE) was held on 18 April. Members welcomed the new President of SAIIE, Prof Teresa Hattingh. She is an engineering education specialist in the Faculty of Engineering and the Built Environment at the University of Johannesburg. [Read more.](#)

- **Water reclamation and reuse guide developed**

A guideline document for South African municipal engineers was developed through a collaborative effort between the [Institute of Municipal Engineering of Southern Africa](#) (IMESA) and the [Water Research Commission](#) (WRC) in collaboration with water sector stakeholders represented by the [Water Institute of Southern Africa](#). The document presents a formal consensus position on best practices for implementing water reuse projects within the municipal environment to support the widescale adoption and increased success rate in the implementation of water reuse projects. To download the guideline [click here](#).

- **Call for abstract submissions for the 13th SACAM now open**

The South African Conference on Computational and Applied Mechanics (SACAM) is a premier international conference on Computational and Applied Mechanics on the African continent. SACAM is held every two years under the auspices of the [South African Association for Applied Mechanics](#) (SAAM) as a forum for presenting current developments in computational and applied mechanics. Participation of post graduate students is encouraged. [Click here](#) for more information and abstract submission instructions.

- **Entries invited for the 2023 SAICE National Awards**

The [South African Institution of Civil Engineering](#) (SAICE) is calling for nominations for their People and Projects Awards. The submission deadline is 31 May 2023. [Read more.](#)

- **Teacher training to improve SA learners' mathematics outcomes**

In an effort to improve mathematics education in South Africa, the [South African Mathematics Foundation](#) (SAMF) is working in partnership with the [African Institute for Mathematical Sciences' Schools Enrichment Centre](#) (AIMSSEC), to provide extensive teacher training to help improve the country's mathematics outcomes. Through partnerships like these, the SAMF hopes to close the gap between previously disadvantaged communities and others to improve entry into mathematics and science careers for learners. [Read more.](#)

- **Herbicide selection at the touch of a button**

The [South African Sugarcane Research Institute](#) (SASRI) Herbicide Selector has been updated. This is an electronic (MS Excel) version where you merely enter the weed type, weed growth stage, soil clay percentage, and whether you are dealing with a plant or ratoon crop. The application then selects appropriate weed control treatments. A printable version of the guide is available. [Read more](#).



SET-related policies currently open for public comment

Keep informed and have your say!

- [National Environmental Management Act: Regulations: Procedure to be followed for Adoption of Spatial Tools or Environmental Management Instruments: Amendments](#) (Comment by 24 June 2023)
- [National Environmental Management: Waste Act: Regulations: Waste Classification and Management and National Norms and Standards for Assessment of Waste for Landfill Disposal and National Norms and Standards for Disposal of Waste to Landfill: Amendments: E](#) (Comment by 24 June 2023)
- [Regulations relating to the Labelling and Advertising of Foodstuffs](#) (Comment by 20 July 2023)

SET-related policy news

Some articles included in the section below are opinion pieces. The opinions expressed in these articles do not necessarily reflect the views of the NSTF Executive Committee, Directors, Secretariat or Members.

Agriculture

- [The importance of measuring agricultural business innovation in South Africa](#) (hsrc.ac.za)
- [The BRICS opportunity for SA agribusiness and agricultural communities](#) (agbiz.co.za)

Energy

- [Key energy plan will be developed in a year's time, says Ramaphosa](#) (polity.org.za)
- [Hydrogen key to rebuilding the South African economy](#) (dst.gov.za)
- [New energy vehicles with a low carbon footprint gaining traction in local transport industry](#) (dst.gov.za)
- [Radebe outlines additional cost of coal IPPs to consumers](#) (polity.org.za)
- [Public ownership of the electricity system must be defended](#) (mg.co.za)

Health and medicine

- [Report on SA's vaccine manufacturing capabilities](#) (wits.ac.za)
- [Our health budget is short of R11-billion](#) (bhekisisa.org)
- [The anti-HIV jab will be made in SA](#) (bhjekisisa.org)



The events posted below are correct as far as we could establish at the time of preparing this newsletter. Please check the relevant websites for changes to dates and venues.

- [Nobel Prize Summit on Countering Misinformation and Building Trust in Science](#): Washington, D.C., and virtually, free and open to the public, 24-26 May 2023
- [Human Lean 101](#): A free basic people management skills package for Industrial Engineering Practitioners, organised by SAIEE, 25 May 2023, 14:00-16:00
- *Daily Maverick's* [The Gathering: Earth Edition](#): Cape Town (and online globally) where solutions-focused discussions will look at the effect of the climate crisis and ecosystem collapse across business, security, civil society, food production and much more. 26 May 2023, 09:00-18:00
- [Food Safety Summit 2023](#): Gauteng, 30-31 May 2023
- [IST Africa Conference](#): Pretoria, 31 May - 02 June 2023
- [8th Africa Agribusiness and Science Week](#): Durban, 5-8 June 2023
- [PROTEC 40th Anniversary Fundraising Golf Day and Gala Dinner](#): Wanderers Golf Club, followed by the dinner at the neighbouring Protea Hotel Wanderers, 9 June 2023
- The inaugural [Township Economies Conference](#) and Expo, Gauteng, 13-14 June 2023
- The National Research Foundation (NRF) jointly with Nelson Mandela University will be hosting the [Sustainability Research and Innovation \(SRI2023\) congress](#) Africa satellite event to showcase the richness of African perspectives in sustainability science and innovation, Nelson Mandela University, Gqeberha, 20-22 June 2023
- [11th SA AIDS conference](#): Durban, 20-23 June 2023
- [Mine Ventilation Society of South Africa Annual Conference](#): Kempton Park, Gauteng, 22-23 June 2023
- [XXI Triple Helix Conference](#) on "Entrepreneurial and Engaged Universities for Sustainable Development - Linking education, research and innovation to achieve the SDGs and ESGs": Barcelona (Spain), 26-29 June 2023
- [Science and Technology Diplomacy Summer School](#): Barcelona, Spain, 3-7 July 2023
- [23rd Congress of the Entomological Society of Southern Africa \(ESSA23\)](#): Stellenbosch. 11-14 July 2023
- [Grassland Society of Southern Africa Congress 58](#): Rustenburg. North Wes, 24-28 July 2023
- [31st International Cartographic Conference \(ICC 2023\)](#): Cape Town, 13-18 August 2023
- [Symposium on innovative teaching practices](#), organised by The Mathematics for the Future Project: Oxford University, UK, 14-18 August 2023
- [International Association for Impact Assessment South Africa \(IAIASA\) National Congress](#): Kruger National Park, 20-25 August 2023
- [12th International Congress of Plant Pathology](#): France, 20-25 August 2023
- [2023 SAAFoST Biennial Congress and Exhibition](#): Future Foods: Smarter and More Sustainable Solutions, Cape Town, 28-30 August 2023
- [PHASA 2023](#) (Public Health Association of SA Conference): 'Transforming research translation- reimagining public health evidence, policies, and practice', Gqeberha, 10-13 September 2023

- [50th IAH Worldwide Groundwater Congress](#) of the International Association of Hydrogeologists: Cape Town, 18-22 September 2023
- [9th African Engineering Week and 7th Africa Engineering Conference](#): Pretoria, 25-28 September 2023
- [8th All Africa Conference on Animal Agriculture](#): Botswana, 26-28 September 2023
- [Colloquium of African Geology \(CAG29\)](#): Namibia, 26-29 September 2023
- [SA Innovation Summit 2023](#): Cape Town, 27-28 September 2023. Theme: "Africa's Innovation Frontier". [Pre-registration](#) is now open.
- [69th Association of Municipal Electricity Utilities of Southern Africa \(AMEU\) Convention](#): Pretoria, 1-4 October 2023
- [International Conference on Industrial Engineering, Systems Engineering and Engineering Management \(ISEM2023\)](#): Western Cape, 2-4 October 2023. The [call for workshops/tutorials](#) has been extended.
- [19th biennial International Conference on Accelerator and Large Experimental Physics Control Systems \(ICALEPCS\) 2023](#): Cape Town, 9-13 October 2023. Hosted by the South African Radio Astronomy Observatory (SARAO), the conference will be preceded by workshops on 7 and 8 October 2023.
- [1st IWA Non-Sewered Sanitation Conference](#): Johannesburg, 15-18 October 2023
- [IMESA Conference 2023](#): Gqeberha, 25-27 October 2023
- [53rd Congress of the Southern African Society of Plant Pathology](#): Golden Gate National Park, Free State, 21-25 January 2024



Some articles included in the section below are opinion pieces. The opinions expressed in these articles do not necessarily reflect the views of the NSTF Executive Committee, Directors, Secretariat or Members.

Science Councils and Statutory Bodies

- **CSIR:** [CSIR and key energy stakeholders launch Microgrid Centre of Excellence](#) (engineerit.co.za)
- **ASSAf:** [ASSAf Update on the Code of Conduct for Research to Stakeholders](#) (assaf.org.za)
- The Academy of Science of South Africa (ASSAf) in partnership with the Department of Science and Innovation (DSI) invites you to submit [applications](#) to participate at the [8th BRICS Young Scientist Forum](#). The Forum will be held from 31 July - 2 August 2023 in the North-West Province, South Africa.
- **HSRC:** [Conference call for papers: Global dynamics of coal mining and just transition to hydrogen energy in South Africa and the continent](#). Deadline: 15 June 2023. (hsrc.ac.za)
- **NRF:** [ORTARChI inspires research chairs programme in Tanzania](#) (nrf.ac.za)
- **SANSA:** [The South African National Space Agency's FREE National Water Quantity Information Service "Mzansi Amanzi"](#) (sansa.org.za)
- **SAMRC:** [SAMRC scientists ranked amongst the best in South Africa and globally in the field of Microbiology](#) (samrc.ac.za)

Higher Education Institutions

- [Mangosuthu University of Technology honours globally renowned scientist and SAMRC president at graduation](#) (samrc.ac.za)

- [UCT to host new Wellcome-funded Discovery Research Platform for Infection](http://uct.ac.za) (uct.ac.za)
- [Havenga Prize in life sciences awarded to SU microbiologist Prof Gideon Wolfaardt](http://sun.ac.za) (sun.ac.za)
- [FMHS psychiatrist recognised for pioneering schizophrenia research](http://sun.ac.za) (sun.ac.za)
- [Prospective innovators inspired at World Intellectual Property Day celebrations](http://mandela.ac.za) (mandela.ac.za)
- [Mandela University participates in world-first digital twin of the ocean project](http://mandela.ac.za) (mandela.ac.za)
- [UWC Lab to Help Understand Microplastics for Better Ecosystem](http://uwc.ac.za) (uwc.ac.za)
- [The Institute for Microbial Biotechnology and Metagenomics joins the multi-national BlueRemediomics project](http://uwc.ac.za) (uwc.ac.za)

4IR and information technologies

- [45% of Executives say ChatGPT has prompted an increase in AI investment](http://engineerit.co.za) (engineerit.co.za)
- [ChatGPT is the push higher education needs to rethink assessment](http://theconversation.com) (theconversation.com)

Agriculture

- [Indigenous crops a critical piece of South Africa's nutrition security puzzle](http://hsrc.ac.za) (hsrc.ac.za)
- [Revolutionising wheat: Developing cultivars that maintain their quality in heat and drought](http://ufs.ac.za) (ufs.ac.za)
- [Farmers in South Africa face power cuts and a weak rand - but a number of factors are working in their favour too](http://theconversation.com) (theconversation.com)

Biology

- [New species of medicinal mushroom identified](http://nature.com) (nature.com)

Energy

- [Three trends in the mining industry driven by rolling blackouts](http://bizcommunity.com) (bizcommunity.com)

Environment and Climate change

- [Shedding light on Southern Ocean's climate change story at TEDxJohannesburg countdown](http://csir.co.za) (csir.co.za)
- [NRF climate researcher wins international prize for climate research](http://nrf.ac.za) (nrf.ac.za)
- [Time to share knowledge, maximise sustainability opportunities](http://uct.ac.za) (uct.ac.za)
- [Meet the couriers behind proteas' miniature ecosystem](http://nature.com) (nature.com)
- [Cape Town's caracals have metal pollutants in their blood – an environmental red flag](http://theconversation.com) (theconversation.com)
- [Microbes discovered that can digest plastics at low temperatures](http://theguardian.com) (theguardian.com)

Health and Medicine

- [South Africa partners with Australia on mRNA vaccines](http://samrc.ac.za) (samrc.ac.za)
- [As technology advances, the laws surrounding human tissue use need to be reviewed](http://uj.ac.za) (uj.ac.za)

Paleontology and Archaeology

- [New study challenges the age of oldest cave at Cradle of Humankind](http://dailymaverick.co.za) (dailymaverick.co.za)

Science communication

- [The changing landscape of science journalism in South Africa](#) (nrf.ac.za)
- [UP information science expert and Associate Professor Marlene Holmner, sheds light on the importance of girls pursuing careers in STEM and ICT](#) (up.ac.za)

Space science and astronomy

- [Discovery of eight super-hot stars with Southern African Large Telescope](#) (nrf.ac.za)
- [Star swallows planet in first glimpse of Earth's probable end](#) (mg.co.za)
- [South African Gravity Society Revived at KZN Conference](#) (ukzn.ac.za)



- [Dr Patience Mthunzi-Kufa of the CSIR appointed as the Deputy Chairperson of the new Advisory Council on National Orders](#) (csir.co.za)
- [Tribute by the NRF to the late Dr Daniel Adams](#) (nrf.ac.za)
- [Mark New receives Frontiers Planet Prize](#) (dst.gov.za)
- [International innovation title for UCT engineers' greywater solution](#) (uct.ac.za)

Opportunities

- [2023 FNF GreenPitch Challenge](#): GreenCape, in partnership with the [Friedrich Naumann Foundation](#) (FNF), invite innovators and entrepreneurs with economically viable green economy innovation business ideas to enter the 2023 FNF GreenPitch Challenge. Deadline: 8 June 2023.
- [2023 South African Women in Science Awards \(SAWiSA\): Call for nominations](#). Deadline: 19 June 2023.

Let's talk science

[Let's Talk Science](#) is a new show on Viu, presented by Thuli Khanyile, NSTF-South32 Awards Adjudicator over a number of years, and lecturer and PhD candidate at the University of the Witwatersrand. Season One of Thuli's show focuses on hypertension and is already on the Viu platform. Season Two will be available on 20 May and Season Three on 2 June. These shows have been uploaded onto Viu's premium package, which costs R69 per month.

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.
- recognise, award and profile 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

E-mail: enquiries@nstf.org.za

Disclaimer

The NSTF has taken all practical measures to ensure that the material contained in this newsletter is correct.

Privacy

Registration details submitted to the NSTF will be treated confidentially and will only be used by NSTF to communicate with its members and subscribers, as required by the South African Protection of Personal Information Act.

Non Profit Company Registration Number: 2007/029165/08

NPO Registration Number: 92042

Donations Tax exempt