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NSTF-South32 Awards

... research ... tomorrow's innovation

Finalists announced: NSTF-South32 Awards 2020/2021

Recognising excellence and outstanding contributions to science, engineering and technology (SET) and innovation in South Africa
#NSTFawards2021

The [National Science and Technology Forum \(NSTF\)](#) is pleased to announce the finalists contending for the prestigious 2020/2021 NSTF-South32 Awards. This is the 23rd year of the annual [NSTF-South32 Awards](#).

The NSTF-South32 Awards: The [NSTF Awards](#) were established in 1998 as a collaborative effort with [members](#) and stakeholders to recognise outstanding contributions to science, engineering and technology (SET) and innovation by SET-related professionals, teams and organisations in South Africa. This includes experienced scientists, engineers, innovators, science communicators, engineering capacity developers, and organisational managers/leaders, as well as data and research managers.

Our partner: [South32](#) is a mining company that sponsors the annual NSTF Awards for the 6th year now.

The 'Science Oscars': The [NSTF-South32 Awards](#) are referred to as the 'Science Oscars' of South Africa. They are the largest, most comprehensive, and most sought-after national awards of their kind in the country. They were also the first science awards in South Africa.



NSTF-South32 Awards' theme: The theme for the 2020/2021 NSTF-South32 Awards is the **creative economy**. This is in recognition of the [2021 International Year of Creative Economy for Sustainable Development](#) as declared by the United Nations (UN). The 23rd

annual [Awards Gala Event](#) will not only celebrate this theme on **29 July 2021**, but also present a [special annual theme award](#) for an outstanding contribution in this area.

What's new this year?

Hybrid Awards Gala Dinners and Event: This year, the NSTF Awards Gala Event will take place as a hybrid event broadcast from two cities – Johannesburg and Cape Town. This might be a first of a kind in South Africa, building on the success of the new online [live streamed NSTF Awards Gala Event](#) introduced last year as a result of the COVID-19 pandemic. This means the [usual Gala Dinner](#) will be reintroduced with the addition of a celebration in Cape Town and broadcasting from both cities to an online audience via the [NSTF YouTube channel](#). The date for both events is scheduled to take place on **Thursday, 29 July 2021**. The Awards Gala Events will host the finalists in their respective cities, as well as announce the winners. Seating will be reserved for finalists, VIPs and sponsors, therefore limited to others. Contact [Ms Jane Mokgwatshane](#) to be placed on the waiting list.

The NSTF's vision

A transformed country where SET and innovation contribute to a high quality of life for all who live in South Africa, where the profile of SET professionals is representative of the nation's diverse population and where the education system is effective, particularly in terms of performance in SET subjects and the promotion of innovation.

Realising the vision: The NSTF-South32 Awards is the NSTF's flagship event and one among [other strategic activities](#) through which the NSTF realises this [vision](#).

[Partnerships](#) for specific awards (such as with the Water Research Commission, National Intellectual Property Management (NIPMO) and Eskom recognise contributions that have the potential to make a positive impact on South Africa, and on the world.

2020/2021 NSTF-South32 Awards finalists

It is an extraordinary honour to be an Award finalist; also given the quality of the [nominations](#) received, the fierce competition that nominees face, and continued growing interest from the community every year.

Join the [NSTF membership](#) and pioneering [partners/sponsors](#) in applauding the 2020/2021 NSTF-South32 Awards [finalists](#). These comprise individuals, teams and organisations, as applicable, who have made an **outstanding contribution to SET and innovation in South Africa** under the [categories](#) below:

- *The phrases in italics at the end of the citation of the nominee indicates that a nominee qualified as a finalist under more than one category and mentions the applicable category/ies*
- *Listed alphabetically according to the surname of nominee or name of team/organisation under each category*

Lifetime Award

- **Prof Soraya Bardien** – Division of Molecular Biology and Human Genetics, Faculty of Health Sciences, Stellenbosch University (SU)
- **Prof Raymond Durrheim** – Chair: Department of Science and Innovation (DSI)/National Research Foundation (NRF) South African Research Chairs Initiative (SARChI), Exploration, Earthquake and Mining Seismology, School of Geosciences, University of the Witwatersrand (Wits); *also see the Data for Research category*
- **Prof Jan Eloff** – Professor: Computer Science (Research Group Cybersecurity and Big Data Science), University of Pretoria (UP); and DRS Chair: Cyber-Security, Department (Dept) of Computer Science, UP; and Deputy Dean: Research and Postgraduate Studies, Faculty of Engineering, Built Environment and Information Technology, UP
- **Prof Sabiha Essack** – Professor: Pharmaceutical Sciences and Director of Antimicrobial Research Unit, University of Kwa-Zulu Natal (UKZN); and DSI/NRF SARChI Chair: Antibiotic Resistance and One Health, UKZN
- **Prof Eileen Hoal** – Professor Emerita: Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, SU
- **Prof Frank Tanser** – Senior Faculty: Africa Health Research Institute, Nelson Mandela School of Medicine, Durban; and Honorary Professor: School of Nursing and Public Health, UKZN; and Director: Lincoln International Institute for Rural Health, University of Lincoln, United Kingdom
- **Prof Ivan Turok** – DSI/NRF SARChI Chair: University of the Free State; and Distinguished Research Fellow: Human Sciences Research Council
- **Prof Marietjie Venter** – Professor: Medical Virology; and Head: Zoonotic Arbo and Respiratory Programme, Centre for Viral Zoonoses, Dept of Medical Virology, Faculty of Health, UP

TW Kambule-NSTF Award: Researcher

- **Prof Lyn-Marié Birkholtz** – Professor: Biochemistry; and Chair: Department of Science and Innovation (DSI)/National Research Foundation (NRF) South African Research Chairs Initiative (SARChI), Sustainable Malaria Control, Department (Dept) of Biochemistry, Genetics and Microbiology, University of Pretoria (UP); and Institute for Sustainable Malaria Control, Faculty of Natural and Agricultural Sciences; and Faculty of Health Science, UP
- **Prof Anton du Plessis** – Associate Professor: Physics Dept; and Manager: X-ray Computed Tomography (CT) Scanner Facility, Stellenbosch University; and Associate Researcher: Dept of Mechanical Engineering, Nelson Mandela University
- **Dr Sharief Hendricks** – Senior Lecturer: Division of Exercise Science and Sports Medicine, Dept of Human Biology, Faculty of Health Sciences, University of Cape Town; and Visiting Fellow: Leeds Beckett University, United Kingdom
- **Prof Bruce Mellado** – Research Professor; and Senior Scientist: iThemba LABS, University of the Witwatersrand (Wits); and Co-ordinator: Technology Innovation Platform in Artificial Intelligence, iThemba LABS, Wits; and Director: Institute for Collider Particle Physics; and Co-President: Africa-Canada Artificial Intelligence Data Modelling Consortium, York University and Wits; and Assistant Professor: University of Wisconsin-Madison, United States of America; *and also in the Engineering Research Capacity Development category*

- **Prof Marcia Mkansi** – Associate Professor: Dept of Higher Education, University of South Africa; *and also in the Innovation: Corporate Organisation and the Special Annual Theme categories*
- **Dr Ashwell R Ndhlala** – Senior Researcher: Green Biotechnologies Research Centre, School of Agricultural and Environmental Sciences, University of Limpopo; *and also in the Special Annual Theme category*
- **Prof Philiswa Nosizo Nomngongo** – Associate Professor and Chair: DSI/NRF SARCHI, Nanotechnology for Water, University of Johannesburg; *and also in the Engineering Research Capacity Development category*

TW Kambule-NSTF Award: Emerging Researcher

Prize sponsor: [proSET](#) (Professionals in SET), a sector of the NSTF representing professional bodies and learned societies

- **Dr Wynand J Goosen** – Post-doctoral Research Fellow: Department of Science and Innovation/National Research Foundation Centre of Excellence for Biomedical TB Research, Division of Molecular Biology and Human Genetics, Department (Dept) of Biomedical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University (SU)
- **Dr Laura Heathfield** – Senior Lecturer and Forensic Geneticist, University of Cape Town (UCT)
- **Dr Tiisetso E Lepphoto** – Lecturer and Researcher: School of Molecular Biology, University of the Witwatersrand (Wits)
- **Dr Michelle Lochner** – Senior Lecturer: University of the Western Cape; and Staff Scientist: South African Radio Astronomy Observatory
- **Dr Vukosi Marivate** – ABSA Chair: Data Science; and Senior Lecturer: University of Pretoria
- **Prof Salome Maswime** – Head: Global Surgery, Obstetrics and Gynaecology, UCT
- **Prof Nnamdi Nwulu** – Director: Centre for Cyber Physical Food, Energy and Water Systems; and Associate Professor: Dept of Electrical and Electronic Engineering Science, University of Johannesburg
- **Dr Boitumelo Innocent Ramatsetse** – Lecturer and Researcher: Engineering Graphics and Design, Educational Information and Engineering Technology, Wits; *and also in the Innovation: Corporate Organisation category*
- **Prof Sheetal Silal** – Associate Professor: Dept of Statistical Sciences, UCT; and Director: Modelling and Simulation Hub, Africa, Faculty of Science, UCT; and Honorary Visiting Research Fellow: Oxford University, United Kingdom
- **Dr Caitlin Uren** – Post-Doctoral Fellow: Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, SU; *and also in the Data for Research category*

Management Award

- **Dr Tegan Bristow** – Senior Lecturer and Director: Fak’ugesi African Digital Innovation Festival, School of Fine Arts, University of the Witwatersrand; *and also in the Special Annual Theme category*
- **Prof Stephanie Burton** – Professor: Biochemistry; and Professor: Future Africa; and Immediate Past Deputy Vice-Chancellor: Research and Postgraduate Education, University of Pretoria (UP)
- **Dr Ellenore Meyer** – Senior Medical Officer: Community Orientated Primary Care Research Unit, UP; *and also in the Special Annual Theme category; and see also the Non-Governmental Organisation category*

- **Prof Saurabh Sinha** – Deputy Vice-Chancellor: Research and Internationalisation; and Professor: Microelectronics, University of Johannesburg

Engineering Research Capacity Development Award

Sponsor: [Eskom](#) since 2003

- **Prof Michael Claeys** – Professor: Chemical Engineering, Catalysis Institute, University of Cape Town (UCT); and Director: Department of Science and Innovation (DSI)/National Research Foundation (NRF) Centre of Excellence in Catalysis (c*change), UCT; *and see also in the Innovation: Small, Medium and Micro Enterprise category*
- **Prof Ncholu I Manyala** – Professor: Physics; and Chair: DSI/NRF South African Research Chairs Initiative (SARChI) in Carbon Technology and Materials, University of Pretoria
- **Prof Bruce Mellado** – Research Professor and Senior Scientist: iThemba LABS, University of the Witwatersrand (Wits); and Co-ordinator: Technology Innovation Platform in Artificial Intelligence, iThemba LABS, Wits; and Director: Institute for Collider Particle Physics; and Co-President: Africa-Canada Artificial Intelligence Data Modelling Consortium, York University and Wits; and Assistant Professor: University of Wisconsin-Madison, United States of America; *and also in the TW Kambule-NSTF Researcher category*
- **Prof Philiswa Nosizo Nomngongo** – Associate Professor and Chair: DSI/NRF SARChI in Nanotechnology for Water, University of Johannesburg; *and also in the TW Kambule-NSTF Emerging Researcher category*

NSTF-Water Research Commission (WRC) Award

Sponsor: [WRC](#) since 2017

- **Prof Tamiru Abiye** – Professor: Hydrogeology, School of Geosciences, University of the Witwatersrand (Wits)
- **Prof Paul Oberholster** – Director: Centre for Environmental Management, University of the Free State
- **Reverse Osmosis/Cooling (ROC) Water Technologies** – Director and Project Co-ordinator: Prof Jannie P Maree, Department of Water and Sanitation, University of Limpopo; *and also in the Innovation: Small, Medium and Micro Enterprise category*
- **Prof Craig M Sheridan** – Director: Centre in Water Research and Development, School of Geography, Archaeology and Environmental Studies, Wits

Data for Research Award

- **Baobab Laboratory Management Information Systems** – Team Leader: Prof Alan Christoffels, Chair: Department of Science and Innovation/National Research Foundation South African Research Chairs Initiative: Bio-informatics and Human Health; and Director: South African National Bio-informatics Institute; and Director: South African Medical Research Council Bio-informatics Capacity Development Unit, University of the Western Cape
- **The National Income Dynamics Study, Coronavirus Rapid Mobile Survey Team** – Team Leader: Prof Vimal Ranchhod, University of Cape Town
- **School of Geosciences Data Collection and Storage Facility, University of the Witwatersrand** – Team Leader: Professor Raymond Durrheim; *also see the Lifetime category*

- **The South African Human Genetics Database** – Dr Caitlin Uren, Post-Doctoral Fellow: Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, Stellenbosch University; *and also in the TW Kambule-NSTF Emerging Researcher category*

Innovation Award: Corporate Organisation

- **Innovus Technology Transfer Office Team, Stellenbosch University** – Team Leader and Head: Dr M Madelein Kleyn, Technology Transfer, Innovus, Stellenbosch University
- **Prof Marcia Mkansi** – Associate Professor: Department of Higher Education, University of South Africa; *and also in the TW Kambule-NSTF Researcher and the Special Annual Theme categories*
- **Dr Boitumelo Innocent Ramatsetse** – Lecturer and Researcher: Engineering Graphics and Design, Educational Information and Engineering Technology, University of the Witwatersrand (Wits); *and also in the TW Kambule-NSTF Emerging Researcher category*
- **The Biomimicry Diagnostic Verification Controls Team** – Chief Executive Officer: Prof Bavesh Kana, Department of Science and Innovation/National Research Foundation Centre of Excellence for Biomedical TB Research, Wits

Innovation Award: Small, Medium and Micro Enterprise (SMME)

Sponsor: [National Intellectual Property Management Office \(NIPMO\)](#) since 2019

- **Cape Catalytix (Pty) Ltd** – Chief Executive Officer (CEO): Dr Rein Weber; *and see also the Engineering Research Capacity Development category*
- **Diagnostic Aptamer Technologies-Aminotek (DATA) (Pty) Ltd** and **Amasu Technologies (Pty) Ltd** – Team Leaders: Drs Ashley Pretorius and Jared Mackenzie
- **Heartwood Sustainable Industries (Pty) Ltd** partnered with **Materials Scientist** – Dr G Siva Mohan Reddy
- **Reverse Osmosis/Cooling (ROC) Water Technologies (Pty) Ltd** – Director and Project Co-ordinator: Prof Jannie P Maree, Department of Water and Sanitation, University of Limpopo; *and also in the NSTF-Water Research Commission category*
- **The Stellenbosch Nanofiber Company (Pty) Ltd** – CEO: Dr Anton Smit

Communication Award

- **Ask Afrika (Pty) Ltd** – A research team of 81 individuals including statisticians, analysts and interviewers, Team Leader: Ms Andrea Rademeyer
- **Dr Daniel Cunnama** – Science Engagement Astronomer: South African Astronomical Observatory (SAAO); *and also in the Special Annual Theme category*
- **Prof Tessa Marcus** – Emeritus Professor: Community Oriented Primary Care Research Unit, University of Pretoria
- **Prof Carolina Ödman** – Associate Professor and Associate Director: Development and Outreach, Inter-University Institute of Data Intensive Astronomy, University of the Western Cape
- **The Cosmic Savannah** – Drs Jacinta Delhaize and Daniel Cunnama, producers and hosts of The Cosmic Savannah podcast, SAAO and University of Cape Town

Non-Governmental Organisation (NGO) Award

- **Mobile Applications Laboratory (mLab)** – Chief Executive Officer (CEO): Ms Nicoli Koorbanally
- **Outlook Foundation** – Team Leader and CEO: Mr Segomotoso E Kelefetswe
- **Sci-Enza Science Centre, University of Pretoria** – Team Leader and Manager: Ms Puleng Tsie
- **Tebelo: Informal Settlement Health Project – Team Leader: Dr Ellenore Meyer**, Senior Medical Officer: Community Orientated Primary Care Research Unit, University of Pretoria; *and see also in the Management and the Special Annual Theme categories*
- **Young Engineers and Scientists of Africa (YESA)** – Owner: Dr Ron Beyers

Special Annual Theme Award: Creative Economy for Sustainable Development

- **Dr Tegan Bristow** – Senior Lecturer and Director: Fak’ugesi African Digital Innovation Festival, School of Fine Arts, University of the Witwatersrand; *and also in the Management category*
- **Dr Daniel Cunnama** – Science Engagement Astronomer: South African Astronomical Observatory; *and also in the Communication category*
- **Dr Ellenore Meyer** – Senior Medical Officer: Community Orientated Primary Care Research Unit, University of Pretoria; *and also in the Management category; and see also the Non-Governmental Organisation category*
- **Prof Marcia Mkansi** – Associate Professor: Department of Higher Education, University of South Africa (based on the TW Kambule-NSTF Researcher nomination); *and also in the TW Kambule-NSTF Researcher and the Innovation: Corporate Organisation categories*
- **Dr Ashwell R Ndhala** – Senior Researcher: Green Biotechnologies Research Centre, School of Agricultural and Environmental Sciences, University of Limpopo; *and also in the TW Kambule-NSTF Researcher category*

Adjudication: The accreditation and selection process for the NSTF-South32 Awards are made by an adjudication panel of independent judges. They represent [six different sectors](#) of the NSTF membership. This adjudication panel, in conjunction with the [Award partners](#), review the nominations to select the finalists and winners each year. A panel of experts, appointed by the [NSTF Executive Committee](#), also assists the panel by reviewing and validating the final selections.

Youth programmes: One of the features that make these awards unique is that youth outreach is an integral part of the awards. Two NSTF [Youth](#) outreach programmes are run annually in conjunction with the NSTF Awards.

- The NSTF [Brilliant Programme](#) identifies and celebrates the top achievers in physical science and mathematics from the previous year’s matric examinations, who are studying in STEM related courses (the sciences, engineering, medicine, etc). It exposes these young people to the SET community. Eighteen first year students (a young man and a woman from each province) are recognised as possible future leaders and innovators. The programme is sponsored for the last year by the [Carl & Emily Fuchs Foundation](#). [The Lewis Foundation](#) this year sponsors the [Brilliant Tour](#) to a Wilderness School to discover the true value of the biodiversity of the natural world and our place within it, and to motivate and nurture Africa’s future conservation champions.
- The NSTF [Share ‘n Dare Programme](#) is an output of the NSTF-South32 Awards that profiles [award winners](#) as youth role models. Award winners share

their experience and knowledge with thousands of young people at science centres and universities across the country. During the COVID-19 lockdown in 2020, NSTF continued youth outreach by means of [videos](#) that were produced and circulated to schools to reach thousands of learners during Life Orientation classes. They encourage the youth to take up [careers in SET](#). Thousands of South Africans are also reached through [community and campus radio station](#) awareness talks.

Honouring the Awards finalists and announcing the Awards winners

All finalists will be hosted in either Johannesburg or Cape Town, as mentioned above under 'What is new this year'. The announcement of the [winners](#) will take place at these events and online on the evening of 29 July 2021. Save the date and watch your mailbox for further news.

Attending the 'Science Oscars'

The patron of the Awards, the Minister of Higher Education, Science and Innovation, Dr Blade Nzimande has been invited to preside over the presentation of awards taking place on 29 July 2021. All finalists together with the sponsors will be invited to attend. The rest of the community will watch the live-streamed event via the NSTF [YouTube platform](#). Watch your mailbox for news about the Awards Gala Event.

Media partners and advertising campaign

There are two media partners of the NSTF Awards to ensure national public recognition of the winners, as well as to facilitate the communication of science to the broader public. They are:

- [Business Report](#), carried by The Star, Pretoria News, Cape Times, and The Mercury newspapers
- [Mail & Guardian](#)

Both these newspapers carry [supplements](#) about the winners the day after the announcement of the winners. Unique advertising opportunities are available for your brand. Contact [Ms Wilna Eksteen](#) to put you in contact with the media partners.

Please forward this email to your colleagues, business contacts and all interested persons to promote the [who's who of SET and innovation in South Africa!](#)

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, which seeks to influence policy formulation and delivery.

The NSTF Awards are unique in SA, recognising the outstanding contributions of individuals and groups to SET and innovation.

The science bursaries page provides information on bursaries and bursary providers for science, engineering and related studies.

STEMulator.org attracts learners and students to the exciting world of science, technology, engineering and mathematics (STEM). It provides a virtual world full of stimulating content to excite and inform the youth, including STEM career guidance. Established under the auspices of the NSTF proSET membership sector (Professionals in *science, engineering and technology*).

Disclaimer

The NSTF has taken all practical measures to ensure that the material contained in this newsletter is correct. The NSTF reserves the right to make changes as it deems necessary.

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.

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Non Profit Company Registration Number: 2007/029165/08

NPO Registration Number: 92042