

Finalists announced: 2019/2020 NSTF-South32 Awards

Recognising excellence and outstanding contributions to science, engineering and technology (SET) and innovation in South Africa #NSTFawards2020

The <u>National Science and Technology Forum (NSTF)</u> is pleased to announce the finalists contending for the prestigious NSTF-South32 Awards. This is the 22nd year of the annual NSTF-South32 Awards.

The NSTF-South32 Awards: The <u>NSTF Awards</u> were established in 1998 as a collaborative effort with <u>members</u> 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 de-merged from BHP Billiton in 2016. It took over the co-branding sponsorship for the annual NSTF Awards, for the 5th year now, from BHP Billiton that held the co-branding sponsorship for the first 5 years.

The 'Science Oscars': The <u>NSTF-South32 Awards</u> 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 2019/2020 NSTF-South32 Awards is **Plant Health.** This is in recognition of the <u>2020 International Year of Plant Health</u> as declared by the United Nations (UN). The 22nd annual <u>Awards Gala Event</u> will celebrate this theme on **30 July 2020.**

What's new this year?

- 1. **New Awards (virtual) Gala Event:** As a result of the COVID-19 pandemic, the usual NSTF Awards Gala Dinner was reinvented into an exciting live-stream broadcast that promises to bring the recognition, honour and celebration to the deserving finalists and winners. The date for the virtual <u>Awards Event</u> is rescheduled for **Thursday, 30 July 2020.** Watch your mailbox for news on how to tune into the live broadcast of the event.
- 2. **Theme Award:** The 2020 <u>Special Annual Theme Award</u> will be made for research and development (R&D) and innovation in Plant Health. This is in recognition of the UN celebration of the '2020 International Year of Plant Health'. The year is a once in a lifetime opportunity to raise global awareness on how protecting plant health can help end hunger, reduce poverty, protect the environment, and boost economic development.
- 3. **Communication Award:** This award now also considers nominations for professional science communicators working in the field.
- 4. **New partners:** The NSTF continues with two new category partners. The Lewis Foundation as the sponsor for the <u>Green Economy Award</u>, and the National Intellectual Property Management Office (NIPMO) as the sponsor for the Small, Medium and Micro Enterprises (SMME) Award under the <u>Innovation</u> category. The NIPMO sponsorship includes prize money for the Innovation Award: SMME winner.



NSTF's 25th **anniversary:** This year marks the 25th anniversary of the <u>founding of the</u> NSTF, a milestone that the virtual Awards Gala Event will celebrate.

The beginning of the NSTF goes as far back as 1993, when the SET community united behind the drive of the pre-cursor of the NSTF, the *National Science and Technology Initiative (NSTI)* that participated in South Africa's landmark CODESA (Convention for a Democratic South Africa).

The NSTF was launched as a result as a national broadly representative stakeholder body to ensure a democratic and inclusive science system in South Africa (later known as the national system of innovation – a broader concept).

Collectively, the NSTF is the largest and most representative <u>national stakeholder body</u> in South Africa. It promotes SET and innovation through <u>public discussion and policy consultations</u>, engagement with government, media <u>communication and sharing of information</u>, <u>awarding and profiling of professionals</u>, as well as motivation and inspiration of <u>the youth</u> across the country.

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.

2019/2020 NSTF-South32 Awards finalists

It is an extraordinary honour to be an Award finalist; also given the quality of the <u>nominations</u> received, the fierce competition that nominees face, and continued growing interest from the community every year.

Join the NSTF membership and pioneering <u>partners/sponsors</u> in applauding the 2019/2020 NSTF-South32 Awards <u>finalists</u>. These comprise individuals, teams and organisations, as applicable, who have made an <u>outstanding contribution to SET and innovation in South Africa</u> under the <u>categories</u> 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 William J Bond Professor Emeritus: Department (Dept) of Biological Sciences, University of Cape Town (UCT); and Honorary Fellow: SA Environmental Observation Network
- Prof Faizal Bux Director and Professor: Institute for Water and Wastewater Technology, Durban University of Technology (DUT); Dept of Science and Innovation (DSI)/ National Research Foundation (NRF) South African Research Chair (SARChI): Wastewater Treatment, DUT; and also in the NSTF-Water Research Commission category
- Prof Raymond Durrheim DSI/NRF SARChI Chair: Exploration, Earthquake and Mining Seismology, School of Geosciences, University of the Witwatersrand (Wits)
- Prof Zacharias (Zakkie) Pretorius Research Fellow, Dept of Plant Sciences, University of the Free State; and also in the Special Annual Theme category
- Prof Michèle Ramsay Professor: Human Genetics; Director: Sidney Brenner Institute of Molecular Bioscience; and DSI/NRF SARChI Chair: Bioinformatics and Genomics of African Populations, Wits
- **Prof Marie Christine (Chrissie) Rey** Professor: Microbiology, Wits; *and also in the Special Annual Theme category*
- Prof Leslie Swartz Distinguished Professor: Dept of Psychology, Stellenbosch University
- Prof Robert J Wilkinson Honorary Professor: UCT and University College London; Director: Wellcome Institute for Infectious Disease Research, UCT; Group Leader: Francis Crick Institute, London; and Professor: Infectious Diseases, Imperial College, London
- Prof Michael Wingfield Professor: Forestry and Agricultural Biotechnology Institute; and Adviser to the Executive, University of Pretoria; and also in the Special Annual Theme category

TW Kambule-NSTF Award: Researcher

- Prof Jennifer Broadhurst Research Director, Department (Dept) of Chemical Engineering; Deputy-Director: Minerals to Metals, University of Cape Town (UCT); Interim Dept of Science and Innovation (DSI)/National Research Foundation (NRF) South African Research Chair (SARChI): Bioprocess Engineering, UCT; and Director: Global Challenges Research Fund, Mine Dust and Health Network
- Prof Rose Hayeshi Director and Associate Professor: DSI/North-West University (NWU) Preclinical Drug Development Platform, NWU
- Dr Sharief Hendricks Senior Lecturer: Division of Exercise Science and Sports Medicine, Dept of Human Biology, Faculty of Health Sciences, UCT; and Visiting Fellow: Leeds Beckett University, England
- Prof Victoria Jideani Professor and Leader: Cereals and Legumes Biopolymer Research for Food Security, Cape Peninsula University of Technology (CPUT)
- Prof Christine Lochner Co-Director: South African Medical Research Council Unit on Risk and Resilience in Mental Disorders, Dept of Psychiatry, Stellenbosch University
- Prof Salome Mamokome Mahlo Associate Professor and Head of Ethno-medicinal Plans Laboratory, Dept of Biodiversity and Botany, University of Limpopo (Medical University of South Africa)
- Prof Wanda Markotter DSI/NRF SARChl Chair: Infectious Diseases in Animals (Zoonoses); Director: Centre for Viral Zoonoses, Dept of Medical Virology, Faculty of Health Sciences, University of Pretoria
- Prof Vernon S Somerset Associate Professor: Environmental Chemistry, Dept of Chemistry, Faculty of Applied Sciences, CPUT
- Prof Liesl Zühlke Paediatric Cardiologist, Senior Lecturer, and Director: Children's Heart Disease Unit, Red Cross War Memorial Children's Hospital, Faculty of Health Sciences, UCT

TW Kambule-NSTF Award: Emerging Researcher

Prize sponsor: prosestionals in SET), a sector of the NSTF representing professional bodies and learned societies

- Dr Mahabubur Rahman Chowdhury Senior Lecturer: Department (Dept) of Chemical Engineering, Cape Peninsula University of Technology
- Prof Lisa C du Toit Lee Shong Associate Professor: Pharmaceutical Chemistry;
 Senior Researcher: Advanced Drug Delivery Platform Research Unit, University of the Witwatersrand (Wits)
- Dr Wynand J Goosen Post-doctoral Research Fellow: Dept of Science and Innovation (DSI)/National Research Foundation (NRF) Centre of Excellence for Biomedical TB Research, Division of Molecular Biology and Human Genetics, Dept of Biomedical Sciences, Faculty of Medicine and Health Sciences, Stellenbosch University (SU)
- Prof Pragashnie Govender Academic Leader: Research; and Associate Professor: Discipline of Occupational Therapy, School of Health Sciences, University of KwaZulu-Natal
- Dr Vhahangwele Masindi Research Scientist: Magalies Water; Principal Researcher: Council for Scientific and Industrial Research (CSIR); Research Fellow: University of South Africa; Part-time Lecturer: University of Venda; and also in the NSTF-Lewis Foundation Green Economy, NSTF-Water Research Commission, and Innovation: Corporate Organisation categories
- **Prof Philiswa Nosizo Nomngongo** Associate Professor and Chair: DSI/NRF South African Research Chair Initiative: Nanotechnology for Water, University of Johannesburg; and also in the Engineering Research Capacity Development category

- Prof Benita Olivier Personal Professor: Research and Postgraduate Coordinator, Physiotherapy Dept; and Research Director: Wits Institute for Sports and Health, Wits
- Prof Richard Walls Associate Professor: Fire Engineering Research Unit, SU
- Dr Jacqueline Wormersley Senior Scientist: Dept of Psychiatry, SU

Management Award

- Professor Judith Kinnaird Associate Professor and Director: Economic Geology Research Unit; Co-Director: Department of Science and Innovation (DSI), Centre of Excellence (CIMERA) for the Study of Mineral and Energy Deposits, School of Geosciences, University of the Witwatersrand
- Mr Navin Singh Co-Director: Mandela Mining Precinct, Johannesburg
- Prof Frederik (Frik) van Niekerk Professor: Nuclear Engineering; Professor:
 Energy, Unit for Energy and Technology, Contracts Director: DSI Hydrogen
 Infrastructure Centre of Competence; previously Vice-Rector responsible for
 Technology and Innovation, North-West University; and Director: Viridis Ipsum (Pty) Ltd

Engineering Research Capacity Development Award

Sponsored by **Eskom** since 2003

- Prof Walter W Focke Director: Institute of Applied Materials, Department (Dept) of Chemical Engineering, University of Pretoria (UP)
- Prof Daniël G Hattingh Professor in Mechanical Engineering, Nelson Mandela University
- Prof Josua P Meyer Professor and Head: Dept of Mechanical and Aeronautical Engineering; and Chair: School of Engineering, Built Environment and Information Technology, UP
- Prof Philiswa Nosizo Nomngongo Associate Professor and Chair: Dept of Science and Innovation/National Research Foundation South African Research Chair Initiative: Nanotechnology for Water, University of Johannesburg; and also in the Emerging Researcher category
- **Dr Abimbola Olukemi Windapo** Associate Professor: Dept of Construction Economics and Management, University of Cape Town

NSTF-Lewis Foundation Green Economy Award

Sponsored by The Lewis Foundation since 2019

- Prof M J (Thinus) Booysen Associate Professor: Faculty of Engineering,
 Stellenbosch University (SU); and also in the NSTF-Water Research Commission (WRC) category
- Prof Leslie Brown Professor and Head: Applied Behavioural Ecology and Ecosystem Research Unit, University of South Africa (Unisa)
- Prof Kerstin Krüger Associate Professor: Department (Dept) of Zoology and Entomology, University of Pretoria; and also in the Special Annual Theme category
- Dr Vhahangwele Masindi Research Scientist: Magalies Water; Principal Researcher: Council for Scientific and Industrial Research; Research Fellow: University of South Africa; Part-time Lecturer: University of Venda; and also in the NSTF-Lewis Foundation Green Economy, NSTF-WRC, and Innovation: Corporate Organisation categories
- Sharksafe (Pty) Ltd CEO and Co-Inventor: Prof Conrad Matthee, Dept of Botany and Zoology, SU
- Prof Johannes L (Wikus) van Niekerk Director: Centre for Renewable and Sustainable Studies and Dean: Engineering, SU

NSTF-Water Research Commission (WRC) Award

Sponsored by the WRC since 2017

- Prof M J (Thinus) Booysen Associate Professor: Faculty of Engineering,
 Stellenbosch University (SU); and also in the NSTF-Lewis Foundation Green Economy category
- Prof Faizal Bux Director and Professor: Institute for Water and Wastewater Technology, Durban University of Technology (DUT), Department (Dept) of Science and Innovation/National Research Foundation South African Research Chair Initiative: Wastewater Treatment, DUT; and also in the Lifetime category
- Dr Vhahangwele Masindi Research Scientist: Magalies Water; Principal Researcher: Council for Scientific and Industrial Research (CSIR); Research Fellow: University of South Africa; Part-time Lecturer: University of Venda; and also in the NSTF-Lewis Foundation Green Economy, NSTF-Water Research Commission, and Innovation: Corporate Organisation categories
- Prof Paul Oberholster Director: Centre for Environmental Management, University of the Free State
- Dr Abraham Singels Principal Agronomist: South African Sugarcane Research Institute; Extraordinary Professor: Faculty of Natural and Agricultural Sciences, Dept of Plant Production and Soil Sciences, University of Pretoria; Honorary Associate Professor: College of Agriculture, Engineering and Science, School of Agricultural, Earth and Environmental Sciences, University of KwaZulu Natal; and also in the Special Annual Theme category

Data for Research Award

- South African Population Research Infrastructure Network (SAPRIN) Co-Directors: Prof Mark Collinson and Dr Kobus Herbst, University of the Witwatersrand Rural Campus, Mpumalanga
- Stellenbosch University Computed Tomography (CT) facility Team Team
 Leader: Prof Anton du Plessis; Associate Professor: Physics Department; Manager: X ray CT Scanner Facility, Stellenbosch University

Innovation Award: Corporate Organisation

- Prof Luke Chimuka Professor and Research Group Leader: Environmental Analytical Chemistry, University of the Witwatersrand
- Green Team: Council for Scientific and Industrial Research (CSIR) jointly with industry partners: Clive Teubes Aromatics, Biodx (Pty) Ltd, Puris (Pty) Ltd and ConnectME – Team Leader: Dr Lucia Steenkamp; Principal Researcher: Biosciences, Chemical Cluster, CSIR
- Dr Vhahangwele Masindi Research Scientist: Magalies Water; Principal Researcher: CSIR; Research Fellow: University of South Africa; Part-time Lecturer: University of Venda; and also in the NSTF-Lewis Foundation Green Economy, NSTF-Water Research Commission, and Innovation: Corporate Organisation categories
- Dr Tozama Qwebani-Ogunleye Project Manager and Researcher: Institute of Traditional Knowledge and Traditional Medicine-Dihlare, Vaal University of Technology
- The Smart Spectrum Sharing Team Team Leader and Chief Research Scientist: Dr Fisseha Mekuria, CSIR

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

Sponsored by the <u>National Intellectual Property Management Office</u> (NIPMO) since 2019

- Material Technology Solutions (Pty) Ltd Head Scientist Research and Development: Dr Goddeti Siva Mohan Reddy
- Memeza Shout (Pty) Ltd Director: Ms Thulile Mthethwa

Communication Award

- Prof Christopher Henshilwood Distinguished Professor and Chair: South African Department (Dept) of Science and Innovation/National Research Foundation Research Chair Initiative in Modern Human Origins, Evolutionary Studies Institute, University of the Witwatersrand; Director: Research Council of Norway Centre of Excellence, Centre for Early Sapiens Behaviour, 2017-2026 University of Bergen; Professor: African Prehistory, Department of Archaeology, History, Cultural Studies and Religion, University of Bergen, Norway
- **Dr Rehana Malgas-Enus** Senior Lecturer and Researcher: Nanotechnology, Dept of Chemistry and Polymer Science, Stellenbosch University
- **Prof Jeanine Marnewick** Research Chair: Biotechnology and Director: Applied Microbial and Health Biotechnology Institute, Cape Peninsula University of Technology
- Dr Steven Mufamadi Managing Director: Nabio Consulting (Pty) Ltd
- North-West University (NWU) "Teachers Without Borders" Project Team Leader: Prof Josef de Beer, Research Professor, NWU
- Prof Carolina Odman Associate Professor and Associate Director: Development and Outreach, Inter-University Institute of Data Intensive Astronomy, University of the Western Cape
- Vuwani Science Resource Centre Co-Ordinator: Dr Nnditshedzeni Eric Maluta, Head of Dept Physics, University of Venda

Non-Governmental Organisation (NGO) Award

- Federation for a Sustainable Environment CEO and Team Leader: Ms Mariette Liefferink
- **Mothong African Heritage** Founder Member, Executive Director and Overseer: Traditional Doctor Ephraim C Mabena

Special Annual Theme Award: Plant Health

- Prof Ian Dubery Research Professor: Department (Dept) of Biochemistry; Director: Centre for Plant Metabolomics, University of Johannesburg
- Prof Kerstin Krüger Associate Professor: Dept of Zoology and Entomology, University of Pretoria (UP); and also in the NSTF-Lewis Foundation Green Economy category
- Prof Zacharias (Zakkie) Pretorius Research Fellow: Dept of Plant Sciences,
 University of the Free State; and also in the Lifetime category
- **Prof Marie Christine (Chrissie) Rey** Professor: Microbiology, University of the Witwatersrand; *and also in the Lifetime category*
- Dr Abraham Singels Principal Agronomist: South African Sugarcane Research Institute; Extraordinary Professor: Faculty of Natural and Agricultural Sciences, Dept of Plant Production and Soil Sciences, UP; Honorary Associate Professor: College of Agriculture, Engineering and Science, School of Agricultural Earth and Environmental Sciences, University of KwaZulu-Natal; and also in the NSTF-Water Research Commission category

 Prof Michael Wingfield – Professor: Forestry and Agricultural Biotechnology Institute and Adviser to the Executive, UP; and also in the Lifetime category

Adjudication: The accreditation and selection process for the NSTF-South32 Awards are made by an adjudication panel of independent judges. They represent <u>six different sectors</u> of the NSTF membership. This adjudication panel, in conjunction with the <u>Award partners</u>, review the nominations to select the finalists and winners each year. A panel of experts, appointed by the <u>NSTF Executive Committee</u>, 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 <u>Youth</u> outreach programmes are run annually in conjunction with the NSTF Awards.

- The NSTF <u>Brilliants Programme</u> identifies and celebrates the top achievers in physical science and mathematics (with 90% or more for these subjects) from the previous year's matric examinations, who are also studying in the sciences, engineering and/or medicine. It exposes these young people to the SET community. Eighteen students (a man and a woman from each province) are recognised as potential future leaders and innovators.
- "As we look ahead into the next century, leaders will be those who empower others." –
 Bill Gates. The NSTF <u>Share 'n Dare Programme</u> is a role modelling project linked to
 the NSTF-South32 Awards. Award winners share their knowledge and experiences in
 the SET field at science centres, schools and universities across the country. They
 inspire and encourage the youth to take up <u>careers in SET</u>. Thousands of South
 Africans are also reached through community and campus radio station awareness
 talks.

Honouring the Awards finalists and announcing the Awards winners

As a result of the COVID-19 pandemic, the announcement of the winners will take place through a live-streamed Gala Event on **Thursday**, **30 July 2020**, 19:00 to 20:30.

Attending the 'Science Oscars'

The patron of the NSTF Awards has always been the Minister of Science and Technology. Now that the Ministry is joined with Higher Education, the Minister of Higher Education, Science and Technology, Dr Blade Nzimande, is the patron. He confirmed his attendance and will deliver the keynote address as part of the Awards Gala Event. The virtual event can be watched by anyone in the world and the reach of this Awards Gala Event will be much wider than ever. Those who have never been invited to attend the NSTF-South32 Awards have an opportunity to enjoy the excitement of the evening with us.

Fundraising: Since the Awards initiative is a fund-raising event for the activities of the NSTF as a non-profit company, the NSTF kindly appeals to members and stakeholders to donate to the causes of NSTF.

Why uphold the NSTF: The National Science and Technology Forum (NSTF), since its formation in 1995, is a consultative forum for influencing the formulation and delivery of science, engineering, technology (SET) and innovation public policy in South Africa.

Besides the NSTF Awards and its associated youth programmes, the NSTF:

- Hosts platforms for networking and <u>debate on current SET issues</u>, and in doing so promote collaboration and opportunities for policy feedback to government
- Engages with government on SET-related policy on behalf of the SET community
- Provides information monthly by gathering and distributing a wide variety of SETrelated news to update stakeholders and the public on the latest developments in South Africa and highlight matters of concern and importance to the community
- Engages the media on the outcomes of consultations and discussions for publication and publicity to inform the general public and influence stakeholders
- Keeps the SET conversation going through the voice of the NSTF Executive Director by expressing opinion on current matters or of concern to the community

The professionals involved in the <u>member organisations</u> have the opportunity to share their insights and experience on NSTF platforms. All projects are typically collaborative in nature and national in their reach.

Donations: The usual costs for attendance of recent past <u>Awards Gala Dinners</u> were R20,000.00 (excl VAT) per table seating 10 guests of the organisation's choice OR R2,200.00 (excl VAT) per seat.

The usual contribution of your organisation as a donation would be most valuable to sustain not only this national Awards effort, but also the non-profit activities of the NSTF, although any amount of donation would be honoured, and much appreciated. Donors will be recognised in the Who's Who booklet, in the Awards Gala Event recording and in the NSTF newsletter.

Contact Wilna Eksteen at awards@nstf.org.za for more information.

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:

- <u>Business Report</u>, 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 Awards Gala Event (Friday, 31 July 2020). Unique advertising opportunities are available for your brand. Contact Ms Wilna Eksteen at enquiries@nstf.org.za or call +27 (0)12 841-4995.

Partnerships and sponsorships

Organisations are invited to join hands with the NSTF to widen the reach and impact of the NSTF-South32 Awards and youth programmes. Partnerships are available on new and existing award categories and the youth outreach programmes. Contact Ms Wilna Eksteen at enquiries@nstf.co.za or call +27 (0)12 841-3987/4995.

Please forward this email to your colleagues, business contacts and all interested persons to notice the Awards Finalists and promote the 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

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

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.

Registration details submitted to the NSTF will be treated confidentially and will only be used by NSTF to

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