NSTF-South32 Awards

Nominees announced: 2019/2020 NSTF-South32 Awards

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

The National Science and Technology Forum (NSTF) is pleased to announce the group of nominees competing for the 2019/2020 NSTF-South32 Awards.

The NSTF-South32 Awards. The NSTF Awards were established in 1998 as a collaborative initiative between the South32 Foundation and the NSTF to recognise and celebrate the contribution by SET practitioners and organisations in South Africa. The Awards recognise outstanding achievers in the fields of science, engineering and technology, innovation, and organisational management, as well as data and research infrastructure.

Our partner. South32 is a mining company that has merged from BHP Billiton in 2015. It owns 12 operations across Australia, Southern Africa and South America.

The Science Stream. The NSTF-South32 Awards are referred to as the Science Stream of Awards. They are the largest, most comprehensive, and most prestigious awards programme for the South African science, engineering and technology (SET) community.

NSTF-South32 Awards' theme. The theme for the 2019/2020 NSTF-South32 Awards is Plant Health. This is in recognition of the IUCN International Year of Plant Health as declared by the United Nations (UN). The UN 17 Goals for Sustainable Development, which all 193 UN member states have committed to, underpin the UN's declaration of 2020 as the year of plant health and raising the IUCN's importance.

What's new this year?

Five years on major changes are coming to the Awards. Please, please read the Awards' Guidelines document carefully.

- **Thresh Award.** The 2020 Special Annual Thresh Award will recognise the contribution to science, engineering and technology (SET) and innovation in South Africa of the late Professor Fred Hendricks.
- **Young Scientist Awards.** These Awards recognise contributions to underpinning science and research carrying by the SET community.
- **Awards' Ceremony.** This year's Awards will be a very unique ceremony. The Lucas Foundation, the Sponsor, the Royal Society of South Africa, and the National Arts Council of South Africa (NACSA) are combining their respective annual ceremonies into one (NSTF-South32 Awards, Lucas Prize, Lecture, Medal, Exhibition). The NSTF-South32 Awards will take place on Thursday, 5 December 2019.

SF-Lucas Awards. The Lucas Prize, Lecture, Medal, Exhibition (SF-Lucas) is a joint venture between the Royal Society of South Africa and the Lucas Foundation. The SF-Lucas Awards are now brought about by the celebrated Lucas Foundation. The Lucas Foundation is a US-based, private, family foundation with offices in Britain and Switzerland. Lucas Foundation's mission is to "Inspire the next generation of scientists and engineers".

The NSTF's vision

A transformed science, where SET and innovation contribute to a high quality of life for all citizens, and where the SET community is fully representative of the South African population, and where the SET community is recognised and celebrated as a valued, participating, contributing member of the South African society.

Realising the vision. The NSTF-South32 Awards is the NSTF's flagship event and one of the most important ways in which the SET community is recognised and celebrated. The Awards' programme is also the Media Relations Committee's (MRC) flagship programme. The MRC is a sub-forum of the NSTF. The MRC's mandate is to promote the public understanding of science, innovation, corporate governance and organisational management.

2019/2020 NSTF-South32 Awards nominees

Just like SET, innovation and organisational management is underpinning the 2019/2020 NSTF-South32 Awards nominees. In the SET and innovation streams, there are 20 nominees across 10 categories. In the organisational management stream there are 5 nominees across 5 categories.

The nominees are at the end of the detailed list of the nominees indicates that a nominee has been nominated in more than one category. Nominees can be nominated for more than one award.

A Lead representative according to number of nominees or name of team/organisation under each category.

Young Scientist	**Prof Wilfred J Basson**, Professor, Department: Physics of Materials, Faculty of Science, Nelson Mandela University, Gqeberha, Eastern Cape, SA (Environmental Sensor Network)
	Prof Kabali Bali, Lecturer, Land Protection, Institute for Plant & Animal Sciences, Agricultural Research Council, Roodeplaat, Gauteng, SA (Sustainable Agricultural Systems) **Prof Sandeep Kumar**, Senior Lecturer, Agronomy, Institute for Plant & Animal Sciences, Agricultural Research Council, Roodeplaat, Gauteng, SA (Sustainable Agricultural Systems) **Prof Donald Cowan**, Director, Genome for Microbial Biology and Bioinformatics, Department of Biochemistry, Genetics and Microbiology, Pretoria, Gauteng, SA (Genomics)
	Prof Tendwa Kibet, Professor, Mathematics, University of South Africa, Pretoria, Gauteng, SA (Mathematics)
	Prof Ian Dawes, Research Professor, Department of Biochemistry, Genetics and Microbiology, University of Pretoria, Pretoria, Gauteng, SA (Genomics)
	Prof Raymond Durkin, LEARNER IMPACT Chair, Engineering Education, Department of Electrical and Electronic Engineering, University of Stellenbosch, Cape Town, SA
	Prof Jacobus Krabbe Pillay, Extraordinary Lecturer and Founder Director, Centre for Sustainable Hydrology, Department of Geography, Geoinformatics and Meteorology, University of Pretoria, Pretoria, Gauteng, SA (Water Resources)
	Prof Nicolene Engelbrecht, Senior Lecturer, Microbiology, Genetics and Molecular Health and Wellness Sciences, Cape Peninsula University of Technology, Cape Town, SA
	Prof Andrew Forbes, Professor, School of Physics, Wits
	Prof Jan Van Humbeck, Research Professor, Chair of Geology, Department of Geology, Faculty of Natural and Agricultural Sciences, University of the Free State (UFS), and Director: Rapid Prototyping Laboratory, UFS, Bloemfontein, Free State, SA
	Traditional Doctor Sphesihle V Makaula, Founder Member, Executive Committee, Traditional Medicine Research Group, Department of Management, NRF's Indigenous Knowledge Research Platform, Rhodes University, Grahamstown, Eastern Cape, SA (Traditional Medicine)
	Traditional Doctor Nhlanhla Mkhize, Traditional Medicine Practitioner (Ingoma) for the Mkhize Royal Family
	Prof Jennifer Fitchett, Senior Lecturer, Geomorphology, Department of Geography, University of Johannesburg, Auckland Park, Gauteng, SA (Geomorphology)
	Prof Jennifer Wesseler, Senior Lecturer in Microbial Ecology and Genomics, Department of Microbiology, University of Stellenbosch, Stellenbosch, Western Cape, SA (Microbial Ecology)
	Prof Maxwell Cheng, Associate Professor, Department of Chemistry, University of the Witwatersrand, and also in the Department of Chemical Engineering, University of the Witwatersrand, and also in the Department of Chemical Engineering, Cape Peninsula University of Technology, Cape Town, SA (Electrochemistry)
	Prof Christina Lucken, Lecturer, South African Medical Research Council (SAMRC), Unit on Risk and Resilience in Mental Disorders, Stellenbosch University, Cape Town, SA
	Prof Sabela Nkosinkosi Mantu, Associate Professor and Head, Department of Chemical Engineering, University of the Witwatersrand, and also in the Department of Chemical Engineering, Cape Peninsula University of Technology, Bellville, Western Cape, SA
	Prof Philip Bessarabov, DST-NRF Chair, Hydrogen Technology, Department of Chemical Engineering, Cape Peninsula University of Technology, Bellville, Western Cape, SA
	Prof Marie Emmenis-Chimuka Nu, Professor, Microbiology, Wits, and Director, Wits Research Commercialisation Office
	Prof Leslie Bunder, Distinguished Professor, Dept of Psychology, Stellenbosch University
	Prof Ashwin Chetty, Senior Lecturer, Professor: UCT and Director, Centre for Quantum Technology, University of Cape Town, Rondebosch, Western Cape, SA (Quantum Technology)
	Traditional Doctor Sphesihle V Makaula, Founder Member, Executive Committee, Traditional Medicine Research Group, Department of Management, NRF's Indigenous Knowledge Research Platform, Rhodes University, Grahamstown, Eastern Cape, SA (Traditional Medicine)
	Prof Jennifer Broadhurst, Research Director, Department Chief of Mineral Processing, Council for Geoscience, Pretoria, Gauteng, SA (Mineral Processing) **Prof Alfred Ramani**, Senior Lecturer, Department of Electrical Engineering, University of Pretoria, Pretoria, Gauteng, SA (Smart Grids) **Prof Ernest Mnkandla**, Professor, Department of Applied Information Systems, University of South Africa, Pretoria, Gauteng, SA (Applied Information Systems)
Innovation	**Prof Anthe du Preez**, Research Professor, Plant Pathology, Stellenbosch University, Stellenbosch, Western Cape, SA (Plant Pathology) **Prof Mark Laubscher**, Senior Lecturer, Department of Electrical Engineering, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Dr Terence Hubert, Lecturer: Town & Regional Planning, Wits, Faculty of Science, WIT
	Prof Sunetra Rajpal, Associate Professor, Dept of Mathematical Sciences, University of South Africa (Unisa)
	Prof Ernest Mnkandla, Professor, Department of Applied Information Systems, University of South Africa (Unisa)
	Prof Ashwin Chetty, Senior Lecturer, Professor: UCT and Director, Centre for Quantum Technology, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Dr Kabali Bali, Lecturer, Land Protection, Institute for Plant & Animal Sciences, Agricultural Research Council, Roodeplaat, Gauteng, SA (Sustainable Agricultural Systems)
	Dr Kabelo Moiseng, Senior Scientist, Mine Health Research Institute, Wits, Johannesburg
	Prof Sandeep Kumar, Senior Lecturer, Agronomy, Institute for Plant & Animal Sciences, Agricultural Research Council, Roodeplaat, Gauteng, SA (Sustainable Agricultural Systems)
	Prof Dean Ho, Associate Professor, Biomedical Engineering, Department of Biomedical Engineering, Stellenbosch University, Stellenbosch, Western Cape, SA
	Prof Jacobus Krabbe Pillay, Extraordinary Lecturer and Founder Director, Centre for Sustainable Hydrology, Department of Geography, Geoinformatics and Meteorology, University of Pretoria, Pretoria, Gauteng, SA (Water Resources)
	Prof Nicolene Engelbrecht, Senior Lecturer, Microbiology, Genetics and Molecular Health and Wellness Sciences, Cape Peninsula University of Technology, Cape Town, SA
	Prof Wilfred J Basson, Professor, Department: Physics of Materials, Faculty of Science, Nelson Mandela University, Gqeberha, Eastern Cape, SA (Environmental Sensor Network)
	Prof Kevin Naidoo, Senior Lecturer, Department of Chemistry, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Prof Ernest Mnkandla, Professor, Department of Applied Information Systems, University of South Africa, Pretoria, Gauteng, SA (Applied Information Systems)
	Prof Sunetra Rajpal, Associate Professor, Dept of Mathematical Sciences, University of South Africa (Unisa)
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	Prof Maxwell Cheng, Associate Professor, Department of Chemistry, University of the Witwatersrand, and also in the Department of Chemical Engineering, University of the Witwatersrand, and also in the Department of Chemical Engineering, Cape Peninsula University of Technology, Cape Town, SA (Electrochemistry)
	Prof Christina Lucken, Lecturer, South African Medical Research Council (SAMRC), Unit on Risk and Resilience in Mental Disorders, Stellenbosch University, Cape Town, SA
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	Prof Alfred Ramani, Senior Lecturer, Department of Electrical Engineering, University of Pretoria, Pretoria, Gauteng, SA (Smart Grids)
Management Awards	**Prof Kevin Naidoo**, Senior Lecturer, Department of Chemistry, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Prof Ernest Mnkandla, Professor, Department of Applied Information Systems, University of South Africa, Pretoria, Gauteng, SA (Applied Information Systems)
	Prof Sunetra Rajpal, Associate Professor, Dept of Mathematical Sciences, University of South Africa (Unisa)
	Dr Kabelo Moiseng, Senior Scientist, Mine Health Research Institute, Wits, Johannesburg
	Prof Jennifer Fitchett, Senior Lecturer, Geomorphology, Department of Geography, University of Johannesburg, Auckland Park, Gauteng, SA (Geomorphology)
	Prof Jennifer Wesseler, Senior Lecturer in Microbial Ecology and Genomics, Department of Microbiology, University of Stellenbosch, Stellenbosch, Western Cape, SA (Microbial Ecology)
	Prof Maxwell Cheng, Associate Professor, Department of Chemistry, University of the Witwatersrand, and also in the Department of Chemical Engineering, University of the Witwatersrand, and also in the Department of Chemical Engineering, Cape Peninsula University of Technology, Cape Town, SA (Electrochemistry)
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	Prof Sabela Nkosinkosi Mantu, Associate Professor and Head, Department of Chemical Engineering, University of the Witwatersrand, and also in the Department of Chemical Engineering, Cape Peninsula University of Technology, Bellville, Western Cape, SA
	Prof Philip Bessarabov, DST-NRF Chair, Hydrogen Technology, Department of Chemical Engineering, Cape Peninsula University of Technology, Bellville, Western Cape, SA
	Prof Marie Emmenis-Chimuka Nu, Professor, Microbiology, Wits, and Director, Wits Research Commercialisation Office
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	Prof Alfred Ramani, Senior Lecturer, Department of Electrical Engineering, University of Pretoria, Pretoria, Gauteng, SA (Smart Grids)
	Prof Ernest Mnkandla, Professor, Department of Applied Information Systems, University of South Africa, Pretoria, Gauteng, SA (Applied Information Systems)
Research Infrastructure	**Prof Kevin Naidoo**, Senior Lecturer, Department of Chemistry, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Prof Sunetra Rajpal, Associate Professor, Dept of Mathematical Sciences, University of South Africa (Unisa)
	Prof Jennifer Fitchett, Senior Lecturer, Geomorphology, Department of Geography, University of Johannesburg, Auckland Park, Gauteng, SA (Geomorphology)
	Prof Jennifer Wesseler, Senior Lecturer in Microbial Ecology and Genomics, Department of Microbiology, University of Stellenbosch, Stellenbosch, Western Cape, SA (Microbial Ecology)
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Thresh Award	**Prof Kevin Naidoo**, Senior Lecturer, Department of Chemistry, University of Cape Town (UCT), and Visiting Fellow, Leslie Bennett Neuroscience Institute, UCT
	Prof Sunetra Rajpal, Associate Professor, Dept of Mathematical Sciences, University of South Africa (Unisa)
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Abbreviations. The accreditation and selection process for the NSTF-South32 Awards is meant to be a collaborative project of independent judges. They represent six different spheres of expertise. The judges are also tasked with ensuring that the Awards are fair and that they are the nominees to whom the Awards and winners mean most. A point of interest, regarding the nominees, is the number of times they have been nominated in the past. Hence the abbreviations.

Acronyms. One of the factors that make these awards unique is that such an initiative is not organised and run by people. The NSTF-South32 Awards organisation was an amazing & complicated with the NSTF Secretariat.

Hence, the NSTF-South32 Awards' Guidelines document contains the key acronyms in alphabetical order. Please, please read the Awards' Guidelines document carefully. Some of the Guidelines' Appendices are meant to assist the nominees and their supporters. Please, please read the Guidelines' Appendices carefully.

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Announcing Awards finalists and winners

The announcement of the NSTF-South32 Awards finalists will be made at the Awards' Ceremony on Friday, 29th July. The announcement of the winners will be given at a date and time that will be confirmed at the Awards' Ceremony on Friday, 29th July.

Awards' Ceremony & Awards' Exhibition

The Awards' Ceremony and Awards' Exhibition will be held on Thursday, 5 December 2019.

Media partners and advertising campaign

- Business Report, sponsored by The Star, Thursday, 5 December 2019
- Sponsorship
- Sponsorship
- Sponsorship

Both these campaigns are in negotiations since the winners the day after the announcement of the finalists. Please, please read the Awards' Guidelines document carefully. Please, please read the Guidelines' Appendices carefully.

Partnerships and sponsorships

Organisations or individuals who want to partner with the NSTF to utilise the Awards and Ceremony or the NSTF-South32 Awards Exhibition to promote their organisations, products or services, please contact the NSTF-South32 Awards' Coordinator, Ms Ayanda Ntsekhe, at ayanda@nstf.org.za or cell: +27 (0)11 381 0960.

Please, please read the Awards' Guidelines document carefully and all information provided to potential partners and sponsors.

About the NSTF

The NSTF is a non-profit organisation (NPO) and a non-profit company (NPC) registered in South Africa. It is governed by a multi-stakeholder, multi-sector, multi-disciplinary, 30-person Council representing the South African science, engineering and technology (SET) community.

The NSTF's vision is for a transformed, vibrant, and productive South African SET enterprise that is fully representative of the South African population, and that is recognised and celebrated as a valued, participating, contributing member of the South African society.

The NSTF's mission is to promote the interaction between the South African SET community and the South African society at large in order to promote the development of the South African SET enterprise in order to ensure that it is of the quality and of the kind that will make the greatest contribution to the socio-economic and environmental well-being of all South Africans.

The NSTF's strategic objectives are to: (1) Promote the public understanding of science, innovation, corporate governance and organisational management; (2) Promote the uptake of science, engineering and technology (SET) by all South Africans, especially the youth, women and people with disabilities; (3) Promote the development of a transformed, representative, vibrant, and productive South African SET enterprise; (4) Promote the development of South African SET policy; (5) Promote the development of South African SET strategy; (6) Promote the development of South African SET human capital; (7) Promote the development of South African SET research capacity; (8) Promote the development of South African SET research infrastructure; (9) Promote the development of South African SET research and development (R&D) management; (10) Promote the development of South African SET R&D; (11) Promote the development of South African SET R&D information; (12) Promote the development of South African SET R&D ethics; (13) Promote the development of South African SET R&D culture; (14) Promote the development of South African SET R&D impact; (15) Promote the development of South African SET R&D partnerships; (16) Promote the development of South African SET R&D networks; (17) Promote the development of South African SET R&D collaborations; (18) Promote the development of South African SET R&D leadership; (19) Promote the development of South African SET R&D management; (20) Promote the development of South African SET R&D governance; (21) Promote the development of South African SET R&D funding; (22) Promote the development of South African SET R&D stakeholders; (23) Promote the development of South African SET R&D institutions; (24) Promote the development of South African SET R&D organisations; (25) Promote the development of South African SET R&D individuals; (26) Promote the development of South African SET R&D systems; (27) Promote the development of South African SET R&D products; (28) Promote the development of South African SET R&D services; (29) Promote the development of South African SET R&D processes; (30) Promote the development of South African SET R&D procedures.

Contact details

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