Finalists announced: 2016/2017 NSTF-South32 Awards

Recognising, celebrating and rewarding excellence in science, engineering, technology and innovation by individuals, teams and organisations in South Africa

The National Science and Technology Forum (NSTF) is pleased to announce the finalists in the 10 awards competing for the highly acclaimed 2016/2017 NSTF-South32 Awards.

The NSTF-South32 Awards: The NSTF-South32 Awards is a collaborative effort to **recognise outstanding contributions to science, engineering and technology (SET) and innovation in South Africa** for researchers, teams of researchers, technologists, technicians, innovators, scientists, engineers, innovators, science communicators, research and engineering capacity builders, organisational managers/leaders, and research managers.

The NSTF-South32 Awards is referred to as the 'Science Oscars' of South Africa, as it is the largest, most comprehensive, and most sought after national awards of its kind. The NSTF Awards was also the first science awards initiated in the country in 1998.

What's new this year? This year's NSTF-South32 Awards proudly present the following new features:

- The NSTF and the Water Research Commission (WRC) forged a new partnership to launch the NSTF-WRC Award. This new award recognises **outstanding contributions to research, innovation and capacity in sustainable water management, knowledge generation and solutions** that demonstrate leadership and impact.
- The NSTF-South32 Awards for **Young Researchers** for individuals and teams for advancing the **availability, management and use of data for research**.
- The NSTF-South32 Awards is a special award for a SET and innovation contribution to or that supports **Sustainable Tourism for Development**, as the theme and in recognition of the 2017 International Year of Sustainable Tourism for Development (#IYSD17) declared by the United Nations (UN).
- The Square Kilometre Array (SKA) South Africa this year also partnered with the NSTF to launch the SKA-NSTF Outstanding Contribution to Use or Extra-Tourism in support of the #IYSD17. Read more about this further down.

The Vision of the NSTF As a transformed country where SET and innovation contribute to a high quality of life for all who live in SA, where the talents of all people are developed and used to their full potential, and where the education system is effective, particularly in terms of performance in SET subjects and promoting inclusion.

The NSTF-South32 Awards are one of the ways in which the NSTF realises this vision. Partnerships for specific awards such as that with the WRC, demonstrate how the NSTF and its partners can pool their resources to have the potential to make a positive impact on South Africa, and on the world.

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 growing interest from the community over the years.

Join the NSTF membership and its partnerships/sponsors, in applauding the 2016/2017 NSTF-South32 Award finalists. These comprise individuals, teams and organisations, as applicable, that have made **outstanding contributions to SET and innovation in South Africa** under 10 different **categories** as follows:

Listed alphabetically according to surnames or name of team/organisation under each category

Lifetime Award

(by an individual over a period of 15 years or more)

- **Bawden, Prof. Nicolas** - Director, Department of Science and Technology (DST) / National Research Foundation (NRF) Centre of Excellence in Food Security, Water Research Commission (WRC), University of Pretoria, University of Johannesburg
- **Downs, Prof. Colleen Thomas** - Professor and Chair, DST/NRF South African Research Chair Initiative in Ecosystem Health and Biodiversity in KwaZulu-Natal and the Eastern Cape, University of KwaZulu-Natal *(also in categories: Research or Engineering Capacity Development Awards and the NSTF-GreenMatter Awards)*
- **Ghana, Prof. George** - Professor, Water Quality Engineering, University of Cape Town *(also in categories: the NSTF-GreenMatter Awards and Research Leadership Awards)*
- **Patterson, Prof. Robert** - Chief Specialist and Clinical Head, Department of Obstetrics and Gynaecology, and Director, Medical Research Council Unit for Maternal and Infant Health Care Strategies, University of Pretoria
- **Midgley, Prof. Guy** - Professor, Department of Botany and Zoology, Stellenbosch University (NIS, formerly of the South African National Biodiversity Institute) *(also in category: Research Leadership Awards)*
- **Prozesky, Prof. Hellmut** - Department of Mathematical Sciences, SU
- **Rast, Prof. Frederick** - Professor and Head, Division of Electrochemistry, Department of Chemical Engineering, UCT, and Director, Research Unit, Faculty of Health Sciences, University of the Witwatersrand; and Principal Specialist and Head of Division of Electrochemistry, Council for Scientific and Industrial Research (CSIR)
- **Saayman, Prof. Melville** - Director, Tourism Research in Economic Environs and Society Unit, North-West University *(also in category: Research or Engineering Capacity Development Awards)*

TW Kambule-NSTF Awards: Research and its outputs

(by an individual over a period of up to 15 years after award of a PhD or equivalent, predominantly in South Africa)

- **Keetman, Prof.Lisa** - Professor, Plant Pathology, Department of Microbiology and Plant Pathology, University of Pretoria *(also in category: Research or Engineering Capacity Development Awards)*
- **Langdon, Prof. Genevieve** - Professor and Deputy Head, Department of Mechanical and Mechatronic Engineering, Stellenbosch University
- **Madhee, Prof. Charles** - Professor and Vice Dean, Prof. Grabarek Studies Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg *(also in category: Research or Engineering Capacity Development Awards)*
- **Mtombeni, Prof. Tembisa** - Associate Professor, Faculty of Science, School of Physics, University of the Witwatersrand
- **Phaswana-Mafuya, Prof. Nancy (Rathina)** - Research Director, Human Sciences Research Council (HSRC), and Honorary Professor, Nelson Mandela Metropolitan University *(also in category: Data for Research Awards)*
- **Pretorius, Prof. Etheresia** - Professor, Department of Physiological Sciences, Stellenbosch University *(also in category: Research or Engineering Capacity Development Awards)*
- **Schatta, Prof. Aletta** - Unit Director, Hypertension and Cardiovascular Disease, South African Medical Research Council, and Chair of the Cardiovascular Disease Research Platform, Medical Research Council Hypertension South African Research Chairs Initiative in Early Detection and Prevention of Cardiovascular Disease in Africa, and Professor in Cardiovascular Hypertension in Africa Research Team, North-West University

TW Kambule-NSTF Awards: Emerging researchers

(by an individual - post-doctoral in a period of up to 6 years after award of a PhD or equivalent in research)

- **Akapelwa, Prof. John** - Associate Professor, Health Economics Unit, School of Public Health and Family Medicine, University of Cape Town (UCT)
- **Bradshaw, Prof. Pelis** - Associate Professor (Computing), School of Computing, College of Science, Engineering and Technology and Coordinator, Information Resource Management Programme, University of South Africa (Unisa) and Research Professor, Tshwane University of Technology (TUT)
- **Becker, Dr Thorsten** - Senior Lecturer, Department of Mechanical and Mechatronic Engineering, Stellenbosch University; and Senior Lecturer, Department of Mechanical Engineering, UCT
- **Coetzee, Dr Vivet** - Senior Lecturer, Department of Genetics, Stellenbosch University
- **Amuza, Prof. Fidelis** - Associate Professor and Head of Department, Built Environment; and Head, Unit for Lean Construction, Cape Peninsula University of Technology
- **Kenyatta, Dr Stephanie** - Senior Scientist, Biomedical Technology Research Initiative, Council for Scientific and Industrial Research (CSIR) Biomedical Technology Research Group, Modelling and Digital Infrastructure Engineering, Built Environment, CSIR
- **Mpofu, Prof. Khumbutani** - Professor and Head, Department of Industrial Engineering TUT *(also in category: Research or Engineering Capacity Development Awards)*
- **Ramchunder, Dr Rajesh** - Lecturer, Department of Geological Sciences, UCT

Management and related activities

(by an individual over the last 5-10 years)

- **Debba, Prof. Pravesh** - Competence Area Manager, Spatial Planning and Systems; Built Environment, Council for Scientific and Industrial Research (CSIR); and Visiting Professor, School of Statistics and Actuarial Science, University of the Witwatersrand (Wits)
- **Gardner, Dr Jeremy** - Chief Director, Research Capacity Development Centre (RDC), and Competence Area Manager: Bio-Manufacturing Technologies, CSIR
- **Mtombeni, Prof. David** - Director, Theoretical Physics and Head of School of Physics, and Deputy Director, National Institute for Theoretical Physics; and Director, Mandelstam Institute of Theoretical Physics, Wits
- **Ndlovu, Prof. Nomvelo** - Chief Director, Research Capacity in Engineering and the Built Environment, University of Johannesburg

Research or Engineering Capacity Development

(to an individual over the last 5-10 years - Eskom sponsors two awards, one for a university and one for a technikon/university of technology and the NSTF will make an award for a contribution in other disciplines)

- **Aoyi, Prof. Ochieng** - Professor and Head, Chemical Engineering; and Director of CRDM (Centre for Renewable Energy and Water), Vaal University of Technology *(also in category: NSTF-WRC Award)*
- **Chetty, Prof. Maggie** - Associate Professor, Department of Physics, University of Pretoria (UP)
- **Downs, Prof. Colleen Thomas** - Professor and Chair, Department of Zoology, and DST/NRF South African Research Chair Initiative of Research Chairs Initiative in Ecosystem Health and Biodiversity in KwaZulu-Natal and the Eastern Cape, University of KwaZulu-Natal *(also in category: Lifetime Award)*
- **Hlabangane, Prof. Diane** - Professor, Chemical Engineering and Director, Material and Process Synthesis Research Unit, University of Pretoria; and Chief Director, Research, CSIR
- **Kenton, Prof. Lisa** - Professor of Plant Pathology, Department of Microbiology and Plant Pathology; UP *(also in category: TW Kambule-NSTF Awards: Management and related activities)*
- **Mtombeni, Prof. Charles** - Vice Dean, Prof Grabarek Studies Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg *(also in category: TW Kambule-NSTF Awards: Research and its outputs)*
- **Monsoniet, Prof. Ebrahim** - Professor, School of Computer Science and Information Technology, Cape Peninsula University of Technology (CPUT); and Dean, Faculty of Science, University of the Witwatersrand
- **Mpofu, Prof. Khumbutani** - Professor and Head, Department of Industrial Engineering, Tshwane University of Technology *(also in category: TW Kambule-NSTF Awards: Management and related activities)*
- **Pretorius, Prof. Etheresia** - Professor, Department of Physiological Sciences, Stellenbosch University *(also in category: TW Kambule-NSTF Awards: Research and its outputs)*
- **Stanley, Prof. Christopher** - Professor, Mineral Resources Engineering and Process Systems Engineering Group, Department of Chemical Engineering, University of Cape Town

NSTF-GreenMatter Award: Biodiversity, conservation, environmental sustainability and a greener economy

(to an individual or an organisation - sponsored by GreenMatter)

- **Centre for Renewable and Sustainable Energy Studies** - Director, Prof. Johannes van Niekerk, Department of Mechanical and Mechatronic Engineering, Faculty of Engineering, Stellenbosch University (SU)
- **Climate Studies, Modelling and Environmental Health Research** - Research Group Leader, Climate Studies, Modelling and Environmental Health Research, Council for Scientific and Industrial Research (CSIR)
- **Downs, Prof. Colleen Thomas** - Professor and Chair, DST/NRF South African Research Chair Initiative of Research Chairs Initiative in Ecosystem Health and Biodiversity in KwaZulu-Natal and the Eastern Cape, University of KwaZulu-Natal *(also in category: Research or Engineering Capacity Development Awards)*
- **Hilderbrandt, Prof. Diane** - Professor, Chemical Engineering and Director, Material and Process Synthesis Research Unit, University of Pretoria; and Chief Director, Research, CSIR
- **Kenton, Prof. Lisa** - Professor of Plant Pathology, Department of Microbiology and Plant Pathology; UP *(also in category: TW Kambule-NSTF Awards: Management and related activities)*
- **Mtombeni, Prof. Charles** - Vice Dean, Prof Grabarek Studies Research and Innovation, Faculty of Engineering and the Built Environment, University of Johannesburg *(also in category: TW Kambule-NSTF Awards: Research and its outputs)*
- **Monsoniet, Prof. Ebrahim** - Professor, School of Computer Science and Information Technology, Cape Peninsula University of Technology (CPUT); and Dean, Faculty of Science, University of the Witwatersrand
- **Mpofu, Prof. Khumbutani** - Professor and Head, Department of Industrial Engineering, Tshwane University of Technology *(also in category: TW Kambule-NSTF Awards: Management and related activities)*
- **Pretorius, Prof. Etheresia** - Professor, Department of Physiological Sciences, Stellenbosch University *(also in category: TW Kambule-NSTF Awards: Research and its outputs)*
- **Stanley, Prof. Christopher** - Professor, Mineral Resources Engineering and Process Systems Engineering Group, Department of Chemical Engineering, University of Cape Town

NSTF-GreenMatter Award: Biodiversity, conservation, environmental sustainability and a greener economy

(to an individual or an organisation - sponsored by GreenMatter)

- **Aoyi, Prof. Ochieng and CRDM (Centre for Renewable Energy and Water)** - Professor and Head, Chemical Engineering; and Director of CRDM, Vaal University of Technology *(also in category: Research or Engineering Capacity Development Awards)*
- **Bosman, Ms Anspie** - Chief Executive Officer: Chillisoft (Pty) Ltd *(also in category: Lifetime Award)*
- **Cloete, Prof. Eugene - for WaterCAPACITY, BIODIS and other projects** - Vice-Rector, Research, Innovation and Postgraduate Studies, Stellenbosch University *(also in category: NSTF-WRC Award)*
- **Downs, Prof. Colleen Thomas** - Professor and Chair, Department of Zoology, and DST/NRF South African Research Chair Initiative of Research Chairs Initiative in Ecosystem Health and Biodiversity in KwaZulu-Natal and the Eastern Cape, University of KwaZulu-Natal *(also in category: Research or Engineering Capacity Development Awards)*
- **Ghana, Prof. George** - Professor of Water Quality Engineering, University of Cape Town *(also in the categories: Lifetime and NSTF-WRC Awards)*
- **Godfrey, Prof. Linda** - Principal Scientist, Waste for Development Research Group, Council for Scientific and Industrial Research (Development and Infrastructure Building); and Honorary Professor, UP, on behalf of the DST- and Extraordinary Associate Professor, SU for Environmental Sciences and Management, North-West University
- **Midgley, Prof. Guy** - Professor, Department of Botany and Zoology, SU (formerly of the South African National Biodiversity Institute) *(also in category: Lifetime Award)*

NSTF-WRC Award: Sustainable water management, knowledge generation and solutions

(to an individual or an organisation to be awarded in recognition of demonstrated leadership and impact - sponsored by the Water Research Commission)

- **Aoyi, Prof. Ochieng and CRDM (Centre for Renewable Energy and Water)** - Professor and Head, Chemical Engineering; and Director of CRDM, Vaal University of Technology *(also in category: Research or Engineering Capacity Development Awards)*
- **Bosman, Ms Anspie** - Chief Executive Officer: Chillisoft (Pty) Ltd *(also in category: Lifetime Award)*
- **Cloete, Prof. Eugene - for WaterCAPACITY, BIODIS and other projects** - Vice-Rector, Research, Innovation and Postgraduate Studies, Stellenbosch University *(also in category: NSTF-GreenMatter Award)*
- **Bosman, Ms Anspie** - Chief Executive Officer: Chillisoft (Pty) Ltd *(also in category: Lifetime Award)*
- **Cloete, Prof. Eugene - for WaterCAPACITY, BIODIS and other projects** - Vice-Rector, Research, Innovation and Postgraduate Studies, Stellenbosch University *(also in category: NSTF-GreenMatter Award)*
- **Dube, Prof. Nkosiphile (Mike)** - Associate Professor and Researcher, Department of Zoology, and Extraordinary Associate Professor, Rhodes University; and Principal Specialist, Water Research Commission (WRC) *(also in category: NSTF-GreenMatter Award)*
- **De Bruyn, Prof. Nicholas (Mike)** - Associate Professor and Researcher, Department of Zoology, and Extraordinary Associate Professor, SU (Rand Water Mammal Programme, Mammal Research Institute, UP) *(also in category: the NSTF-GreenMatter Award)*
- **Gamtsekelo based dynamic spectrum allocation (DS-DSA), CSIR Meraka Institute** - Team leader: Dr Fisseha Mekuria
- **Hackston Pumps (Pty) Ltd** - Chief Executive Officer: Mr Matthys Dippenaar
- **Seymour, Prof. Lukas** - Director, School of Engineering, College for Science, Engineering and Technology, University of South Africa
- **Vulamasu Development Team** - Project Leader: Prof. Lingam Pillay, Associate Professor, Department of Process Engineering, SU

Research for Innovation - Small, Medium or Micro Organisation (SMME)

(to a team or an individual)

- **Bosman, Ms Anspie** - Chief Executive Officer: Chillisoft (Pty) Ltd *(also in category: NSTF-WRC Award)*
- **Ndlovu, Mr Sizwe** - Director and Owner, Dr Rendo Prize.

Communication: Outreach and creating awareness

(to a team or individual)

- **Blumenthal, Dr Ryan** - Senior Specialist and Lecturer, Department of Forensic Medicine, University of Pretoria *(also in category: Special Annual Theme Award for Sustainable Tourism for Development)*
- **Cornell, Prof. Dirk** - Director, Sci-Bono Discovery Centre; and Chairman, Foundation (NRF) Centre of Excellence, SU (formerly Wits); and Chair, SMI team, University of the Witwatersrand - Prof. Lesley Cornell, Professor, Physical Metallurgy, and Director, DST/NRF Cluster and Director, African Materials Science and Engineering Network; Prof. Alex Dyson, Professor, Electrical Engineering, Director, Wireless Laboratory and M-Cavey Spectrum, Operations Manager
- **Du Preez, Prof. Louis** - Professor, Zoology, SAI for Environmental Sciences and Management, North-West University; and Visiting Professor, University Jaime in Castellon, Spain *(also in category: Special Annual Theme Award for Sustainable Tourism for Development)*
- **Ellis, Prof. Shane** - Chief Director, **Transforming South African Diversity and Change** - Outreach Manager: Rita Dondofema-Phiwa, DST-NRF Centre of Excellence for Invasion Biology, Stellenbosch University

Non-governmental organisation

(including technology transfer or education and training activities)

- **South Information Systems Program, South Africa** - Executive Director: Dr Vincent Shoe
- **Mobile Agri Skills Development and Training NPC** - Executive Director: Mr Ernest Mabhuza
- **Schoolnet South Africa** - Executive Director: Mbuyiseni Thomson

Special Annual Theme Award: Sustainable Tourism for Development

(to an individual or an organisation, which contributes to or supports Sustainable Tourism for Development, in recognition of #IYSD17)

- **Blumenthal, Dr Ryan** - Senior Specialist and Lecturer, Department of Forensic Medicine, University of Pretoria *(also in category: Communication)*
- **Du Preez, Prof. Louis** - Professor of Zoology, SAI for Environmental Sciences and Management, Faculty of Natural Sciences, North-West University *(also in category: Communication)*
- **Fitchett Dr Jennifer** - Lecturer in Physical Geography, School of Geography, Archaeology and Environmental Studies, University of the Witwatersrand (Wits)
- **Saayman, Prof. Melville** - Director, Tourism Research in Economic Environs and Society Unit, NWU *(also in category: Lifetime Award)*
- **Van Niekerk, Prof. Adrian** - Director, Centre for Geo-Information Science, Leader: Human in Nature, Command and Control Technology, Council for Scientific and Industrial Research

Awards Gala Dinner: The announcement of the winners will take place at the prestigious Awards gala dinner taking place on **29 June 2017** in Gauteng. The Awards gala dinner is a sold out, glamorous affair that has been held over the programme. The event is an open-ticket and glamorous affair attended by the cream of the crop of the SET community and the largest number of VIPs of any S&T event in the country. Members of the community is invited to book tables for their organisations to celebrate and reward achievement of the community. Contact Ms Mesiwe Rasakanya at the contact details below.

Youth programmes: Two NSTF Youth outreach programmes are run annually in conjunction with the NSTF-South32 Awards.

The Brilliants Programme, sponsored by the Fuchs Foundation, identifies and celebrates some of the top achievers in physical excellence and mathematics from the previous year's matric examinations. It exposes these young people to the SET community and ensures that the top achievers from all nine provinces are recognised as the future innovators of our nation.

The selected Brilliants students are then called on an educational tour every year, this year to the SKA South Africa and South African Large Telescope (SALT) sites. The tour is organised and sponsored by the SKA South Africa.

The Seven 2 Seven Programme, sponsored by the Fuchs Foundation, profiles Award winners as role models to the youth. Award winners give talks at schools and share their stories of how they overcome challenges in their youth to take up careers in SET. Thousands of South Africans are also reached through community and campus radio station awareness talks.

Media Partners and advertising campaign: The two main partnerships of the NSTF-South32 Awards, **Business Report**, distributed through The Star, and **Sunday Times Media**, are key to the success of the NSTF-South32 Awards to ensure national public recognition to the winners. Both these newspapers will carry supplements of the winners the day after the Awards Gala Dinner. Contact Ms Mesiwe Rasakanya at the contact details below if you are a media brand. Contact Ms Mimi Erasmus at the contact details below.

Partnerships and sponsorships: Organisations are invited to join hands with the NSTF to extend the reach and impact of the Awards and Youth programmes. Partnerships are available on new and existing Award categories and outreach programmes. Contact Ms Mimi Erasmus at the contact details below.

NSTF-South32 Awards' theme: The theme for the 2016/2017 NSTF-South32 Awards is **Sustainable Tourism for Development**, in recognition of #IYSD17 as declared by the UN. Awards logo Stories and videos are available on this theme.

Please forward this e-mail to colleagues, business contacts and interested persons

Send us your news

The NSTF covers all aspects of science and engineering in SET and innovation (job papers, to wind up institutions or meetings, conferences and activities of research) the broader SET community, including the Science Councils, NRF, universities, Parliament, Ministries and the parliamentary committees, and the broader S&T community.

Feedback

If you have any comments or suggestions on how we can improve the newsletter, please e-mail the NSTF Secretariat at enquiries@nstf.co.za

About the NSTF

The National Science and Technology Forum (NSTF), established in 1997, is a Statutory Environmental intermediate body for all SET and innovation (organisations in South Africa, including Government, Parliament, Ministries, Universities, etc.

The NSTF SA-wide, strategic forum for national dialogue, discussion and development of principles and proposals for SET and innovation.

The NSTF exists basically when persons interested in research and learning processes for SET and innovation, meet and interact.

Disclaimer

The NSTF has taken all practical measures to ensure that the material contained in this newsletter is correct. The NSTF reserves the rights, when changes are in clearly necessary.

Privacy

Information gathered on subscribers 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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