

News

NACA conference 2021 - Evidence-based pathways to clean air in South Africa

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The Annual Conference of the National Association for Clean Air (NACA), with the theme of “Evidence-based pathways to clean air in South Africa”, was held from 6 to 8 October 2021. The conference followed the Department of Forestry, Fisheries and the Environment’s (DFFE), Air Quality Governance Lekgotla. Even though the NACA conference had to be presented virtually (online) for the second year in a row, a complete programme of scientific presentations and technical sessions was offered. In addition, a session of 3 minute talks (or 3MTs) was presented for the first time this year and will become a permanent part of the programme for future conferences.

Keynote addresses during the conference included topics such as the development of cost-effective air quality strategies, key findings and implications for Southern Africa from the IPCC AR6, the World Bank’s Pollution Management and Environmental Program, and Flue Gas Desulphurisation (FDG) technology. In terms of the programme, sessions on air quality and human health, urban and industrial air quality, monitoring, air quality modelling, and air quality validation and uncertainty guaranteed that every interest was piqued during the three-day conference.

Three well-attended workshops also took place. The first, a multi-stakeholder workshop hosted by the DFFE and NACA, was focused on low-cost sensor technologies in ambient air quality monitoring. A technical session on mine dust and gold tailings was sponsored by Global Challenges Research Fund (GRF) Mine Dust and Health Network, and a technical session on source apportionment was hosted by Eskom and the North-West University.

The conference was attended by just over 90 paid members and sponsored access by the Mine Dust and Health Network to 65 undergraduate and honours levels students from the University of the Witwatersrand, North-West University, University of Limpopo, University of Cape Town, and the University of Johannesburg.

Feedback from conference attendees was positive. More than 70% felt that the conference was adequately marketed, only 8.7% felt otherwise. 95% believed the conference website was professional and informative. 87% felt they had easy access to the virtual conference. More than 90% were happy with the conference program and 95% believed the talks were engaging and applicable to the NACA community. All three the technical sessions, including the low-cost monitoring, mine dust and health, and the source apportionment sessions were positively received with more than 80% of participants ranking it as interesting and engaging. 68% of participants said that future conferences should include a virtual component.

The NACA awards were this year sponsored by Eskom & SACNASP and presented by NACA President, Ms Gabi Mkhathshwa. These awards are used to recognise and reward outstanding contributions towards the cause of clean air. Nominations for awards are considered annually. After adjudication by the NACA Awards Committee, 2021 awards were presented at the NACA Annual Conference. The first award was a posthumous award to Mr Benton Pillay, a former president of NACA. Benton Pillay was a true atmospheric scientist in heart and soul and was very

passionate about air quality management. The second award went to Mr Louis Kleynhans an Environmental Manager of Ergo Mining, responsible for the environmental management of 85 separate dormant, active and closed tailings facilities, covering approximately 3 500 Ha stretching from Roodepoort in the west to Nigel in the east. The third and final award was to a Director and Principal at Airshed Planning Professionals, Dr Lucian Burger. Over the past three decades Lucian has been actively involved in the development of atmospheric dispersion modelling and its applications, air pollution compliance assessments, health risk assessments, mitigation measures, development of air quality management plans, meteorological and air quality monitoring programmes, strategy and policy development, training, and expert witnessing.

Over and above the NACA awards, the conference gave out conference awards to the following:

Best Scientific paper

Bianca Wernecke: South African Medical Research Council

Fuel use, Air pollution and Health in two South African low-income communities located in the Highveld Priority Area

Authors: Wernecke, B., Mathee, A., Abdelatif, N., Seocharan, I., Rajen Naidoo, R., Jafta, N., Ramcharan, K., Phaswana, S., Pauw, C., Howard, A., Smith, H., Ndala, L., Herbst, D., McCourt, B., Wright, C.

Best Scientific paper Runner up

Farina Lindeque: University of Limpopo

Air Pollution in South African Twitterverse: Exploring user awareness over the past decade

Authors: Lindeque, F., Klopper, D., Botha, I., Burger, R., Piketh, S.

Best Student paper

Coenraad Meyer: North-West University

The influence of coal pellet properties on its emissions and thermal performance in a semi-continuous coal stove

Authors: Meyer, C.W., Neomagus, H.W.J.P., Piketh, S.J., Bunt, J.R., Conradie, F.H., Annegarn, H.J., Pemberton-Pigott, C.

Best Student paper Runner up

Faith February: University of Cape Town

Observations of Aerosol size distributions during marine and continental air masses in Simon's Town and False Bay

Authors: February, F., Altieri, K., Van Eijk, A., Piazzola, J.

Best 3 Minute Talk (3MT)

Liezl Bredenkamp: North-West University

What is the background concentration of Mercury in ambient air over South African interior?

Best 3 Minute Talk (3MT) Runner up

Zamahlase Sibisi: North-West University

Characterisation of ambient air quality within an urban settlement using in-situ measurements: A case study for Soweto and Gauteng

3 minute Talk (3MT) Honourable mention

Faith February: University of Cape Town

What is the effect of aerosol loading on air quality in Simon's Town?