

## **SANEDI sponsors Carbon Capture and Storage Special Award at science fair**

The South African National Energy Development Institute (SANEDI) has awarded its prize for Carbon Capture & Storage Special Award at the Eskom Expo for Young Scientists. A Grade 11 learner, Nyeleti Mashele from Sir Pierre Van Ryneveld High School in Kempton Park was also awarded the prize for overall Best Female Project by Eskom Expo.

The Eskom Expo for Young Scientists is a science fair whereby students have an opportunity to demonstrate their own scientific investigations and projects. Through participating at the expo, students increase their awareness of the wonders of Science, Technology, Engineering, Mathematics & Innovation (STEMI) and expand their knowledge through broadening their scientific horizons.

Nyeleti entered the Ekurhuleni regional finals in mid-August 2018 with her project - "The Carbon Eater." The innovation is aptly named, as it aims to absorb the carbon dioxide (CO<sub>2</sub>) emitted by factories during the combustion of fossil fuels, thus mitigating against climate change. The apparatus works by means of a built cylindrical tube protruding from the ground extending vertically to the top of the funnel that is used to absorb the CO<sub>2</sub> from burnt coal. The tube consists of sodium hydroxide and a vacuum which acts as a magnet for fuel gases emitted post-combustion.

"We are delighted to be awarding girls who enter the STEMI field with such innovative ideas. This is what South Africa needs if it is to keep ahead in the energy sector," explains Dr Thembakazi Mali, SANEDI's Interim CEO.

From her achievements at regionals, Nyeleti was afforded the opportunity to exhibit her project at the Eskom Expo for Young Scientists International Science Fair (ISF). The fair sees students from 35 Expo regions in the country compete against other young aspiring scientists.

Nyeleti received mentoring and guidance from SANEDI ahead of the ISF event which took place in Johannesburg from 2-5 October 2018. Successful competitors at the fair will go on to enter international science fairs.

### **Eskom honoured with award**

It was encouraging to see the number of renewable energy and energy efficiency projects at the expos that SANEDI can leverage on in terms of research and development. We salute Eskom for its countrywide efforts to promote enthusiasm amongst our youth for the possibilities that exist in the scientific world.

"In honour of its achievements, the Eskom Expo for Young Scientists International Science Fair (ISF) won the 2018 South African National Energy Association (SANEA) Energy Education Award, in association with SANEDI, on 4 September 2018. Through these awards, SANEA and SANEDI aim to celebrate and pay tribute to enthusiastic South Africans and organisations that are key role-players in the energy landscape," concludes Dr Mali.

*The South African government established SANEDI to direct, monitor and conduct applied energy research and development, demonstration and deployment as well to undertake specific measures to promote the uptake of green energy and energy efficiency in South Africa. Its mission is to use applied and energy research and resource efficiency to develop innovative, integrated solutions that will catalyse growth and prosperity to meet its vision of sustainable living for growth and prosperity in Africa.*

CAPTION

The Carbon Eater display with Ms. Nyeleti Mashele explaining the system to judges

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