

Newsletter

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A message from our chairperson

Online Technical Meetings 2022

Until all levels are completely eliminated, the technical meetings will continue to be hosted online via Microsoft Teams.

These meetings will be advertised on all our social media platforms beforehand with a link to the presentations and the presentations will then be saved to our YouTube Channel if you are unable to attend and still wish to view thereafter. The 2022 calendar will be placed on the website in January 2022 and we will inform you accordingly once this is published.



Greetings to all our SACPS members during these difficult times in our industry, our country and the world. I would like to welcome all our new members that have joined since our last newsletter and we trust that you will find the society beneficial to you and look forward to your inputs, recommendations and continued membership. Remember we exist to serve you, the coal processing industry.

We are faced with a new strain of the COVID virus. On November 24, 2021, a new variant of SARS-CoV-2, B.1.1.529, was reported to the World Health Organization (WHO). This new variant was first detected in specimens collected on November 11, 2021 in Botswana and on November 14, 2021 in South Africa. Since the detection of the variant in November, coronavirus cases have skyrocketed. On Sunday, the president tested positive for the virus. The National Coronavirus Command Council is meeting this week to discuss the best response to the increasing infections and whether the country

needs to go into some sort of lockdown. Will we go back to a stricter curfew? Will we ban interprovincial travel? Will restaurants have to close early? Soon, we're going to find out what kind of a festive season we'll have this year. Vaccinating the majority of the population is the only antidote we have at present and a vaccination drive will continue in 2022 with a lot of companies now making vaccination mandatory. Until such time, we need to ensure that we do our part and contain the spread of the virus.

I would like to take this opportunity to wish you and your families a safe, healthy and peaceful festive season and look forward to further interactions in 2022.

Please follow us on Twitter, LinkedIn and Facebook, check out our website, LinkedIn and Facebook page for up to date information on events and happenings within the society and of course we appreciate feedback and suggestions from all members.

Awards

We are excited to announce that the student of the year for 2021 is Lebohang Clement Mgano.

Coal processing entails several technologies ranging from coal beneficiation to coal conversion into energy and valuable products (coal-to-liquid). Clement was involved in a Masters study that is related to coal processing technology which evaluated the intrinsic reactivity of high pressure coal gasification, where both steam and carbon dioxide were used as reagents. This work is relevant to the operation of coal-to-liquid processes as carried out at a large scale in South Africa.

Through his Masters study, which was funded by Sasol, Clement showed exceptional competency in terms of research, innovation, and development whereby he was strongly involved in the design and commissioning of the High-Pressure Fixed-Bed Reactor (HPFBR) that utilises steam at similar industrial conditions; this being the first rig in South Africa that can operate at high pressure, high temperature and using steam as reactant.

As a researcher, Clement performed exceptionally well in the year 2020 as one of the best student in the School of Chemical and Minerals Engineering with a final score of 83% for his M-dissertation, that was evaluated by both a local and an international examiner. The study entailed the complex evaluation of coal char pore development in relation to intrinsic reactivity, and models were developed to describe both phenomena.

Clement, is now enrolled in a PhD project, and his advisor says that he is certain that Clement can become one of the leading academics at NWU.

Clement will formally be awarded the Student of the Year at the next Annual Awards Dinner. We congratulate Clement on his being awarded best student of the year and wish him great success with his studies and career.



Congratulations to Ithuteng Khoza, the CTC student of the year for 2021 who will be showcased in our next newsletter.

SA Coal Prep Biennial Conference

The biennial hybrid conference took place at Graceland Casino and Country Club, Secunda from 12 to 14 October 2021. The theme was "Coal Processing and our role in the drive for cleaner coal".

The program was as follows:

Session 1	
Opening address	Refloee Maila, current chairperson of SACPS.
Keynote address 1: The Role of Coal in South Africa's Future Energy Mix	Dr. Lars Schernikau HMS Bergbau, Germany
Exciting online analyser developments	Will Robinson Realtime Instruments, Australia
Session 2	
The importance of "mundane" aspects of cyclone operation	Frikkie Enslin, Multotec
Dense medium cyclone modelling	Jeremy Bosman, Pesco
Low cut SX 10 Spiral and Optima classifier combination: Optimising a fine coal processing circuit	Christina Ramotsabi & Franco van de Venter, Multotec/Gravitas Minerals
A Gasification Technology suitable for high ash content and high ash flow temperature	Dr. Johan van Dyk GTI, Chicago, USA
Session 3	
Behaviours of coal macerals in the flotation process	Fardis Nakhaei, North-West University
Beneficiation of weathered ultrafine coal discards through advanced HIP W/O agglomeration process	Poitah Mashaba, University of Witwatersrand
Breakthrough in the calibration PGNAA analysers	Dr. Japie Viljoen, SCANMIN
Session 4	
Thickener basics and the deployment of the novel Radflow™ feedwell in a coal processing case study	Gary Whitford, Roytec
Cross Belt Sampler: Mechanical Design of the World's Largest Hammer Sampler for Bauxite Export Contractual Requirements	Willem Slabbert, Multotec
Session 5	
Design and mathematical behaviour model of a fine winnowing pilot plant	Lee-Roy Morgan, North-West University
Dry beneficiation of high ash South African coal using a newly designed wind sifter separator	Jimmy Alade, University of Witwatersrand
Sorbent assisted drying of flotation and spiral products	Ruan Erlank, DRA Projects
The Assessment of 'Torbanite' in the Ermelo Coalfield	Papali Mahooana, University of Johannesburg
Session 6	
Key Note Address No 2 - Non energy use of coal	Dr Ian Reid
The reprocessing of fine coal discard for domestic use	Prof Marco Le Roux of NWU
Preparation and characterisation of structural composites using South African Coal discard	Orevaoghene Eterigho-Ikelegbe, University of the Witwatersrand
Session 7	
Waterless solution for coal processing	Dion Lusinga, IMS Engineering
Evaluating the dry screening performance of fine coal	Guan Dreyer, North West University
Magnetite properties, their importance and measurement	Jeremy Bosman, Pesco
Session 8	
Dynamic simulation analysis on the performance of sub-frames in vibrating screens	Amin Jami, Vibramech
Multotec's recent screen media developments relevant to coal processing plants	Francois Fouche, Multotec
Session 9	
How advanced slurry wet analysis is driving cost reduction in coal slurry pumping	Shawn Thompson, Weir Minerals
Advances in fine coal beneficiation - a total value chain overview	Tebogo Kale & Franco van de Venter, Gravitas
Fully automated quality control	Bernard Coetzee, Exxaro Resources Limited, Belfast
Application of RhoVol information for coal washability analysis	Shirley Bothoko, North West University
Common slurry pump challenges in mineral processing facilities	Corne Enslin, Pump and Abrasion

The conference was registered with the Engineering Council of South Africa (ECSA), and was awarded CPD Points.

Our aim is to provide a forum for the exchange of knowledge related to coal processing by means of meetings, conferences, seminars and colloquia.

Objectives and goals of SACPS

Create forums for the exchange of knowledge related to coal processing by means of technical meetings, conferences, seminars, etc.

To further the education and understanding of coal processing by Society members and industry personnel.

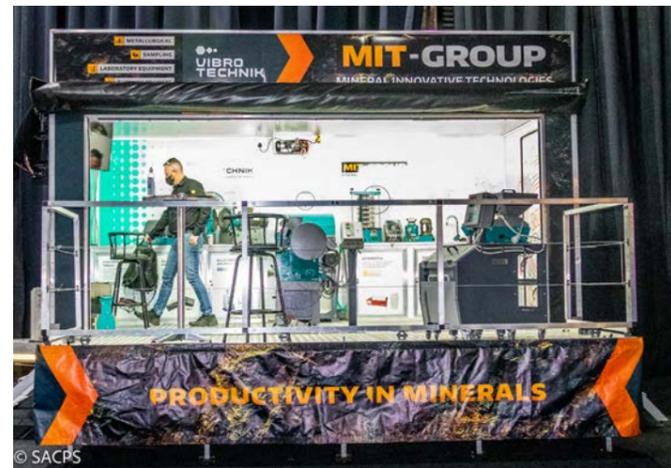
To foster co-operation with appropriate educational institutions and other similar organisations for the furtherance of coal processing knowledge.

To distribute accumulated funds to support the objectives above.

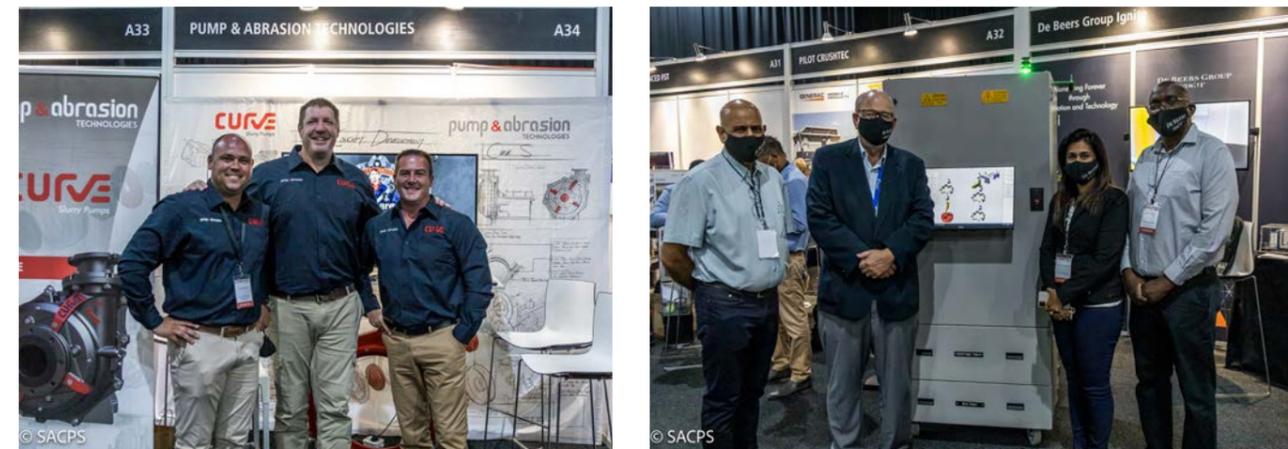
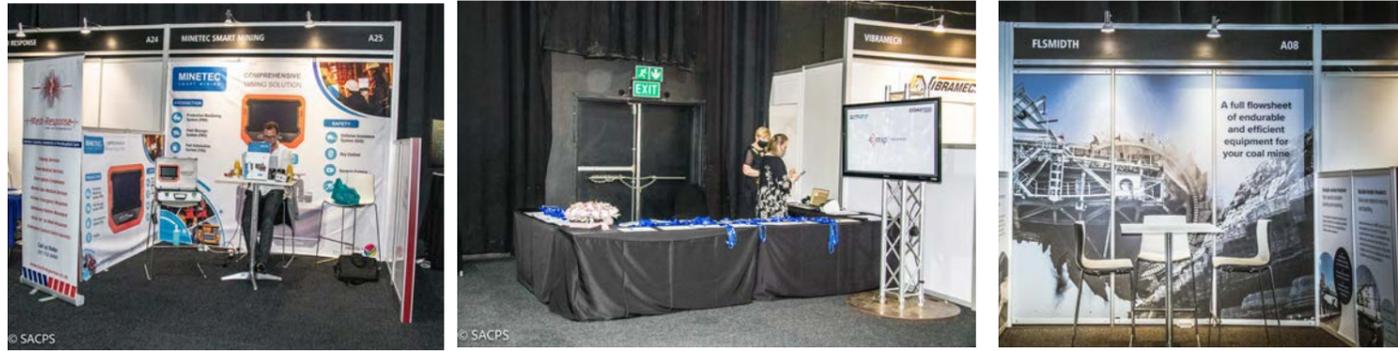
SA Coal Prep Biennial Conference



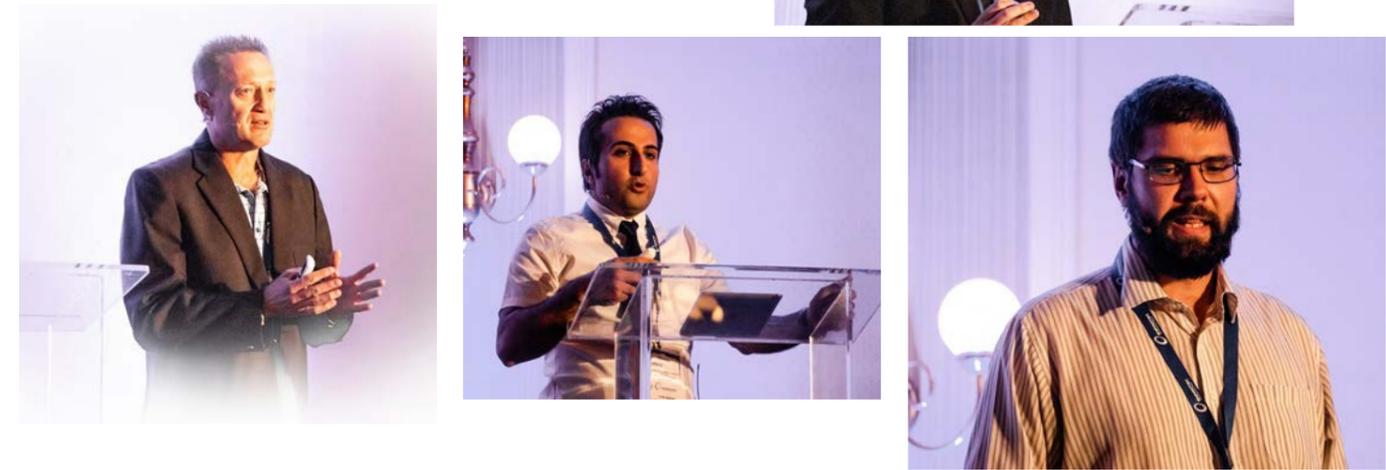
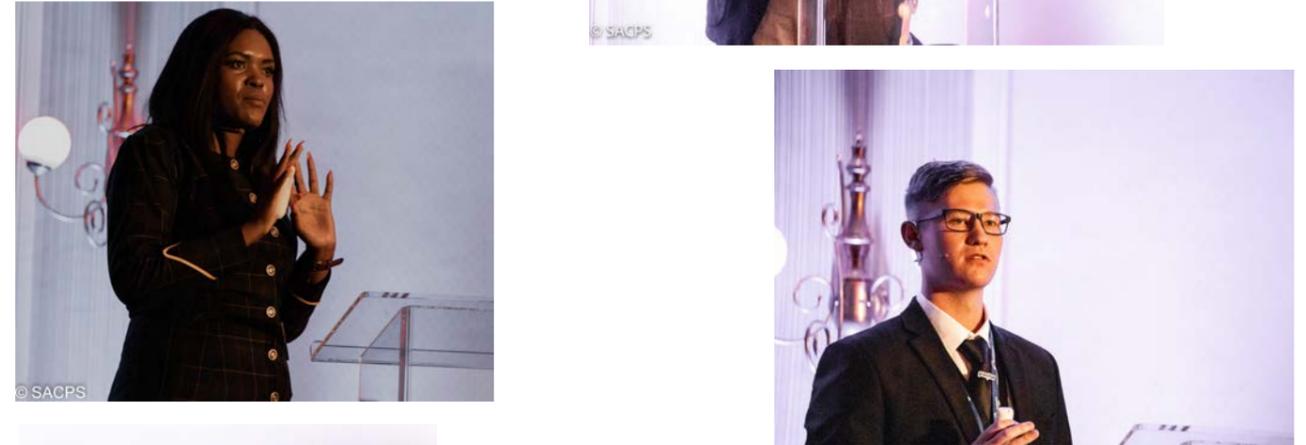
SA Coal Prep Biennial Conference



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SA Coal Prep Biennial Conference



SA Coal Prep Biennial Conference



International and Local Conference News

International Mining and Resources Conference (IMARC) 2021/22 - 31 January - 2 February 2022

The International Mining and Resources Conference (IMARC) is where global mining leaders connect with technology, finance, and the future. Please [visit](#) for more information.

International Conference on Coal Processing and Utilization - March 2022 Istanbul

Coal Processing and Utilization Conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Coal Processing and Utilization Conference. It also provides a premier interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Coal Processing and Utilization Conference. Please [visit](#) for more information.

Future of Mining Australia 2022

Future of Mining Australia will take place in Sydney on the 28th-29th March 2022. The third edition of the Future of Mining Australia covers a vast range of content spanning the entire mining life cycle, focusing on the innovations and technologies driving the industry forward with senior representation from mining companies, service providers, government, finance and research organisations. Please check out their [website](#) for more information, topics and registration.

Coal Processing Technology (CoalProTec) Conference & Exhibition - 25 - 27 April 2022

The Coal Preparation Society of America (CPSA) is bringing back the Coal Processing Technology (CoalProTec) Conference and Exhibition to Lexington, Kentucky, in the April 2022. It will be one of the first events held in the new Central Bank Center. Please [visit](#) for more information.

17th Annual Southern African Coal Conference

This industry-leading event will now be held on 4-6 May 2022, at the Westin Hotel, Cape Town. Please [visit](#) for more information.

International conference on coal resources and coal geology - May 23-24, 2022 Montreal, Canada

The conference aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Coal Resources and Coal Geology. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Coal Resources and Coal Geology. Please [visit](#) for more information.

International Conference on Coal Processing and Utilization - June 2022 San Francisco

The Coal Preparation Society of America (CPSA) is bringing back the Coal Processing Technology (CoalProTec) Conference and Exhibition to Lexington, Kentucky, in the April 2022. It will be one of the first events held in the new Central Bank Center. Please [visit](#) for more information.

The IEA Clean Coal Centre's 10th International Conference On Clean Coal Technologies - June 2022 Pittsburgh, USA

Running biennially since 2003, the CCT conference series is well established as a leading international forum for innovation in the coal sector. The event typically welcomes over 250 delegates from around 30 countries, bringing together stakeholders representing industry, academia and government for four days of talks, panel discussions, site visits, and valuable knowledge sharing. Delegates obtain the latest insight into the new technologies which can meaningfully reduce the environmental impact of coal, as well as hearing expert perspectives on regional energy policy developments and the outlook for the coal sector worldwide. Please [visit](#) for more information.

International conference on green coal mining techniques and green technologies - February 2023

The International Conference on Green Coal Mining Techniques and Green Technologies ICGCMTGT will be held on February 08-09, 2023 in Lisbon, Portugal. Please [visit](#) for more information.

XX International Coal Preparation Conference 2023 - Gold Coast

This conference will be held on the Gold Coast from 9 - 13 October 2023. To download the flyer please [visit](#) their website. More details will be shared at a later date.



Our major sponsors for 2021-2022



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