

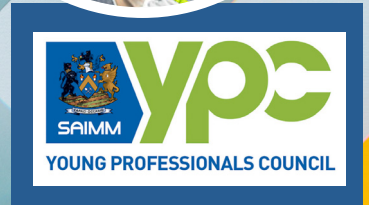


# YOUNG PROFESSIONALS MONTH 2024



## 20<sup>TH</sup> ANNUAL STUDENT COLLOQUIUM

**29 OCTOBER 2024**  
**MINTEK, RANDBURG**  
**JOHANNESBURG**



### Preliminary Programme

#### Tuesday 29 October 2024

- 07:30-08:30 **Registrations and Early Morning Refreshments**
- 08:30-08:35 **Safety Briefing**  
Venue Official
- 08:35-08:40 **Welcome and Opening Address:**  
*A. Moganedi, Student Colloquium Chairperson and SAIMM YPC Council*
- 08:40-08:55 **SAIMM Presidential Address**  
*E. Matinde, SAIMM President*
- 08:55-09:25 **Keynote Presentation: Mining Digital transformation**  
*M. Sichone, Anglo American*
- 09:25-09:55 **Keynote Presentatio:**  
*S. Reznichenko, Sight Power*
- 09:55-10:15 **Sponsor Presentation**  
*M. Thema, Fraser Alexander*
- 10:15-10:35 **Mid-Morning Refreshments**

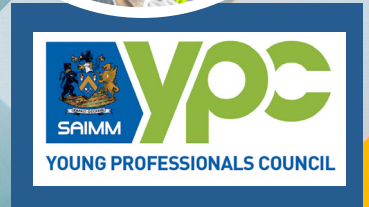


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#### Parallel Sessions

Parallel Session 1		Parallel Session 2	
Session 1: Metallurgy		Session 2: Mining	
Session Chair: K. Maluleke, SAIMM YPC Council		Session Chair: M. Thema, SAIMM YPC Council	
10:35-10:55	<b>Influence of gasifier ash grate design on solids mass flow</b> L.M. Otto, <i>North West University</i>	10:35-10:55	<b>Investigating the efficiency of mining equipment in a prime section at Kriel Colliery</b> M. Ramokgopa, <i>University of the Witwatersrand</i>
10:55-11:15	<b>Real-time estimation of sodium bentonite quality: a neural-network-based approach</b> D. Pieterse, <i>North West University</i>	10:55-11:15	<b>Investigating factors contributing to the increase in cutting picks loss at Matla Mine 2</b> S. Masuku, <i>University of the Witwatersrand</i>
11:15-11:35	<b>Effect of annealing parameters on microstructures and texture in low silicon electrical steels</b> A. Mdladlamba, <i>University of Pretoria</i>	11:15-11:35	<b>Improving first sump time</b> T. Louw, <i>University of the Witwatersrand</i>
11:35-11:55	<b>Recovery of ultra-fine chromite particles using selective flocculation</b> M. Mthombeni, <i>University of Pretoria</i>	11:35-11:55	<b>Assessment of groundwater flow dynamics for dewatering strategy development in the feasibility study of an iron ore pit mine</b> C.L. Mwinkeu, <i>Namibia University of Science and Technology</i>
11:55-12:15	<b>Microstructural control using Zener Hollomon Coupled with modified dynamic material modelling during thermomechanical processing of 2205 Duplex stainless steel</b> N.M. Silubane, <i>University of Johannesburg</i>	11:55-12:15	<b>The influence of the material of the split sets on the pull-out strength</b> T. Thole, <i>University of Pretoria</i>
12:15-13:15	<b>Lunch</b>	12:15-13:15	<b>Lunch</b>
13:15-13:35	<b>The correlation between hydro-cyclone processing parameters and coal product quality</b> S. Tshimange, <i>University of Johannesburg</i>	13:15-13:35	<b>Antenna design optimisation for through the earth communication in underground mines</b> D. Reddy, <i>University of Pretoria</i>
13:35-13:55	<b>Failure analysis of wire twister used in Consolidated Wire Industries (CWI)</b> L. Ilunga, <i>Vaal University of Technology</i>	13:35-13:55	<b>A comparison of wireless communication protocols for real-time tracking in underground mines</b> H. Sekate, <i>University of Pretoria</i>
13:55-14:15	<b>The effect of leaching kinetics on nickel laterite ore: pulp density, agitation speed and mixing ratio of reagent</b> P. Mhlongo, <i>Vaal University of Technology</i>		
14:15-14:35	<b>Characterization of titanium medical alloys, Ti6Al4V, CpTi and Ti34Nb13Zr produced from SPS</b> L. Malimabe, <i>Vaal University of Technology</i>		
14:35-14:55	<b>Leaching the Tsumeb smelter flue dust to produce purified Arsenic trioxide</b> S. Sakaria, <i>Namibia University of Science and Technology</i>		
14:55-15:15	<b>Influence of grinding environment on moringa seed oil collector performance during flotation of chalcopyrite-bornite ore blend</b> T.N. Angula, <i>Namibia University of Science and Technology</i>		