

ADAPTING THE AFRICAN MINING INDUSTRY TO CHANGING GLOBAL TRENDS TO ENSURE LONG TERM SUSTAINABILITY

21ST ANNUAL STUDENT COLLOQUIUM

21 OCTOBER 2025
MINTEK, RANDBURG, JOHANNESBURG



Final Programme

Tuesday 21 October 2025

Plenary session sponsored by Fraser Alexander 

07:30-08:30	Registrations and Early Morning Refreshments	08:55-09:25	Keynote Presentation: Sir Ian Chauke, General Manager BMF Executive Member Founder of Legacy Talk Chief Ideas Officer ESG Strategist Speaker
08:30-08:35	Safety Briefing Venue Official	09:25-09:40	Sponsor Presentation by S.M. Thema, Fraser Alexander, South Africa
08:35-08:40	Welcome and Opening Address A. Moganedi, <i>Student Colloquium Chairperson and SAIMM YPC Council, South Africa</i>	09:40-10:10	Mid-Morning Refreshments
08:40-08:55	SAIMM Presidential Address G.R. Lane, <i>SAIMM President, South Africa</i>		

Parallel Sessions

Mining – Venue: Atrium		Metallurgy – Venue: Auditorium	
Session Chairs: T. Maphosa, M. Malebe		Session Chairs: M.L. Mathopo, N. Mabena	
10:00-10:20	The economic impact of powder factor variation on drill and blasting operations at beifang mining services J. Haingura, <i>University of Namibia, Namibia</i>	10:00-10:20	Effect of heat treatment conditions on the microstructure of Ti-11Nb for biomedical application O. Marumo, <i>Vaal University of Technology, South Africa</i>
10:20-10:40	Evaluating the external dilution factor for ore-mining: Mavachab Gold Mine Namibia A. Van Zyl, <i>Namibia University of Science and Technology, Namibia</i>	10:20-10:40	Building a furnace from the ground up: A practical Metallurgical Engineering initiative F. Mampuru, <i>Vaal University of Technology, South Africa</i>
10:40-11:00	An operations planning and underground management system in underground gold mines R.M. Mazanhi, <i>University of Zimbabwe, Zimbabwe</i>	10:40-11:00	Design and fabrication of an In-House foundry laboratory sand mixer R Ramadwa, <i>Vaal University of Technology, South Africa</i>
11:00-11:20	A predictive approach towards rock fall mitigation in underground mines B.B.T. Sande, <i>Zimbabwe School of Mines, Zimbabwe</i>	11:00-11:20	Modeling the rheological behaviour of aqueous zinc oxide and dolomite suspensions under colloid science and engineering control K.L. Jazlyn Rieth, <i>Namibia University of Science and Technology, Namibia</i>
11:20-11:40	The development of a predictive maintenance system for jackhammer to optimize maintenance costs S. Matakina, <i>Zimbabwe School of Mines, Zimbabwe</i>	11:20-11:40	Magnesium-calcium separation from dolomite in chloride medium E.S. Mweuta, <i>Namibia University of Science and Technology, Namibia</i>
11:40-12:00	An automated fault detection system on the compressed air networks L.T. Vakisai, <i>Zimbabwe School of Mines, Zimbabwe</i>	11:40-12:00	Eco-friendly production of carburised iron ore pellets E. Kemp, <i>University of Pretoria, South Africa</i>
12:00-13:00	Lunch	12:00-13:00	Lunch
13:00-13:20	Optimizing the cost-effectiveness of the reclamation process for underground mining equipment through a priority-based decision matrix N.M. Kadi, <i>University of Pretoria, South Africa</i>	13:00-13:20	Producing carbon neutral reductants from charcoal fines K.Geerkens, <i>University of Pretoria, South Africa</i>
13:20-13:40	Improving tramming operations at Level 102 and 105 at Kusasalethu Gold Mine D. Mahlakwana, <i>University of Pretoria, South Africa</i>	13:20-13:40	Determination of the driving forces for optimal sintering of magnesia-chromite bricks M. Hoosen, <i>University of Pretoria, South Africa</i>
13:40-14:00	Performance evaluation of the through-the-rock locator system in underground mines N.E. Mathebula, <i>University of Pretoria, South Africa</i>	13:40-14:00	Wear behaviour of CrCoNi and VCoNi medium entropy alloys S. Masangu, <i>University of the Witwatersrand, South Africa</i>
Continuation of Metallurgy Presentations (Delegates to join the metallurgy session)		14:00-14:20	Indentation size effect of 316L stainless steel P. Sekgata, <i>University of the Witwatersrand, South Africa</i>
		14:20-14:40	Study of ore particle size and binder type in sintered pellets of chromite ore T. Makeke, <i>University of the Witwatersrand, South Africa</i>
		14:40-15:00	Comparative analysis of convex and concave cone designs in hydrocyclones: impact on separation efficiency and performance prediction A. Minnaar, <i>North-West University, South Africa</i>
		15:00-15:20	Optimizing the throughput in a wet drum magnetic separator using flow pattern analysis C van Niekerk, <i>North-West University, South Africa</i>
15:20-15:40	Afternoon Refreshments and Adjudication Process	15:20-15:40	Afternoon Refreshments and Adjudication Process
15:40-16:00	Awards Ceremony and Close of Colloquium	15:40-16:00	Awards Ceremony and Close of Colloquium