

Young Professionals 2017—Preliminary Programme

Day 1–9 March 2017

07:00–08:30 **Registration**

08:30–08:35 **Opening Address**

S. Nhleko, *Chairperson of the Organising Committee of the YPC Conference*

08:35–08:40 **Emergency procedures**

08:40–08:50 **Welcome**

Prof. C. Musingwini, *President SAIMM*

Session 1—N. Nxumalo Sponsored by



08:50–09:20 **Keynote 1—How to gain, maintain, and sustain industry confidence in your field of experience**

N. Siwisa-Damasane, *Richards Bay Coal Terminal, South Africa*

09:20–09:40 **Multi-stakeholder collaboration to unlock the potential of deep level mining in South Africa**

K.M. Letsoalo, *Chamber of Mines, South Africa*

09:40–10:00 **Exploration of the South West Precursor, Finsch diamond mine**

M. Matabane and T. Khati, *Petra Diamonds, South Africa*

10:00–10:20 **The throughput of mining engineering students in the University of Johannesburg (2009 to 2013 Cohorts)**

M. Mpanza, *University of Johannesburg, South Africa*

10:20–10:50 **Tea break**

Session 2—T. Mmola

10:50–11:20 **Keynote 2—Leaders of the Future – how social and technological innovation will demand fundamentally different leadership over time**

D. Cook, *RHIS, South Africa*

11:20–11:30 **Sponsorship presentation**

Redpath Mining, South Africa

11:30–11:50 **Challenging the status quo in the mining industry to alleviate unemployment, slow economic growth, and poverty in sub-Saharan Africa**

H.S. Nepembea and P. Phelo, *University of Johannesburg, South Africa*

11:50–12:10 **The impact of South Africa's 'use it or lose it' principles on the platinum sector**

J. Scholtz and P. Bredell, *University of Pretoria, South Africa*

12:10–12:30 **Purification of effluent from a rare earth elements process by chemical precipitation**

C. Sehlola, *Mintek, South Africa*

12:30–12:50 **Legislation and management practices in mining directed toward protecting water resources**

C. Zermatten, *SRK Consulting, South Africa*

12:50–13:50 **Lunch**

Session 3—N. Tshiongo

13:50–14:10 **The impacts of Section 54 stoppages on staff morale**

M. Mpanza, P. Nelwamondo, and N. Ndiweni, *University of Johannesburg, South Africa*

14:10–14:30 **Identification of cost factors relating to mining incidents**

E.P. Preis and R.C.W. Webber-Youngman, *University of Pretoria, South Africa*

14:30–14:50 **Graduate unemployment in the South African mining sector**

T. Mmola, M. Mpanza, and P. Nelwamondo, *University of Johannesburg, South Africa*

14:50–15:10 **The application of process mineralogy on a tailings sample from a beach placer deposit containing rare earth elements (REE)**

A. Moilaa*, D. Chettya*, and S. Ndlovu†, *Mintek, South Africa**, *University of the Witwatersrand, South Africa†*

15:10–15:40 **Tea break**

Session 4—W. Banda

15:40–16:00 **Time to invest towards mineral beneficiation in South Africa**

G. Mathebula, *University of Pretoria, South Africa*

16:00–16:20 **Effect of various parameters on uranium leach kinetics**

B. Sililo and D. Groot, *Namibia University of Science and Technology, Namibia*

16:20–16:40 **The effect of magnesia and alumina crucible wear on the smelting characteristics of titaniferous magnetite**

M.P. Maphutha, M. Ramaili, M.B. Sitefane, and X.C. Goso, *Mintek, South Africa*

16:40–17:00 **Accurate measurement of polarization potentials during electrodeposition of nickel metal from sulphate electrolytes**

L. Schoeman and K.C. Sole, *University of Pretoria, South Africa*

17:00–19:00 **Networking Function**

Keynote 3—Engineers of the future

G. Lane, *Vuuma Collaborations, South Africa*

Young Professionals 2017—Preliminary Programme

Day 2—10 March 2017

07:00–08:30 **Registration**

08:30–08:35 **Welcome**

S. Nhleko, *Chairperson of the Organising Committee of the YPC Conference*

08:35–08:40 **Emergency procedures**

08:40–08:50 **Introduction to YPC**

T. Mmola, *Chairperson YPC*

Session 5—S. Nhleko

08:50–09:20 **Keynote 4—Personal development: Importance of career planning and personal skills development**

T. Makgala, *Goldfields, South Africa*

09:20–09:40 **Review of Mintek's experience on sorting Witwatersrand ore samples using the Rados XRF sorter**

N. Makhalemele*, S. Mathebula*, N. Odiar†, and D. Grimbeek†, *Mintek, South Africa**, *Rados, South Africa†*

09:40–10:00 **Removal of nitrates from plant process solution**

F.D.L. Uahengo, S. Amunyela, and D. Groot, *Namibia University of Science and Technology, Namibia*

10:00–10:20 **Product development of a high chrome white cast iron to yield consistent physical and mechanical properties**

K.C. Mashele and S.T. Mavhungu, *University of Johannesburg, South Africa*

10:20–10:50 **Tea break**

Session 6—L. Schoeman

10:50–11:00 **SAMCODES—professional reporting practices for the future**

T. Marshall, *Explorations Limited, South Africa*

11:00–11:20 **A comparative study of vanadium recovery from titaniferous magnetite using salt, sulphate, and soda ash roast-leach processes**

S. Nkosi, P. Dire, N. Nyambeni, and X.C. Goso, *Mintek, South Africa*

11:20–11:40 **A critical evaluation of innovative initiatives for improving energy efficiency of truck and shovel systems**

P.E. Ramashaua and S. Uludag, *University of Pretoria, South Africa*

11:40–12:00 **Increasing mine life and making uneconomical projects viable with Aachen™ technology**

E.R.M. Mariba, *Maelgwyn Mineral Services Africa (Pty) Ltd, South Africa*

12:00–12:20 **Design considerations for critical coal measurement points: towards accurate reconciliation for integrated mine planning**

M. Tetteh and F. Cawood, *University of the Witwatersrand, South Africa*

12:20–12:40 **Digital technology in South African mining**

M.P. Matlhwana, *University of the Witwatersrand, South Africa*

12:40–13:00 **Development of an algorithm for stope boundary optimization for underground mines**

A.S. Nhleko and C. Musingwini, *University of the Witwatersrand, South Africa*

13:00–14:00 **Lunch**

Session 7—K. Letsoalo

14:00–14:20 **Face-bursting imminent in deeper South African platinum mines?**

B.C. Okhuis* and J.W.L. Hanekom†, *University of Pretoria, South Africa**, *Middindi Consulting, South Africa†*

14:20–14:40 **A project management approach for a mining stope**

P. Nelwamondo and D. Kruger, *University of Johannesburg, South Africa*

14:40–15:00 **The application of opencast pillar mining for the secondary extraction of pillars from previously mined bord-and-pillar operations**

P.L. Ngwenyama and W.W. de Graaf, *University of Pretoria, South Africa*

15:00–15:20 **Void filling and water sealing in the Kalahari manganese field**

I. Serepa* and N.C. Steenkamp†, *Advisian, South Africa**, *WorleyParsons Group, South Africa†*

15:20–15:40 **A technology map to facilitate the process of mine modernization throughout the mining cycle**

J. Jacobs and R.C.W. Webber-Youngman, *University of Pretoria, South Africa*

15:40–15:50 **Tea break**

15:50–16:00 **Close of Conference**