It is recognised that we live in an era characterised by accelerated change, overwhelming complexities and tremendous competition, all of which result in considerable uncertainty about the future. The challenge for young professionals in this time is to create a vision for mining in Africa that will inspire confidence for the future. Young professionals must create a roadmap that describes the steps necessary to realise the vision. In setting the strategic direction to achieve the vision, these are a few of the questions that must be answered:

- What are the policies that should be developed and implemented to transform the status quo to the envisioned mining environment?
- What are the technical solutions that need to be pursued?
- What are the human capital needs that must be satisfied?
- What are the economic conditions required?

This conference will provide a platform for young professionals to interact with peers and industry thought leaders to drive the dialogue towards unlocking the future of the African minerals industry.

HOW TO REGISTER
Complete the registration form and return to anna@saimm.co.za or camielah@saimm.co.za
Take advantage of the Early Bird registration discount. Book before 2 February 2017 to qualify.

EXHIBITION/SPONSORSHIP
Sponsorship opportunities are available. Companies wishing to sponsor or exhibit should contact the Conference Co-ordinator.

WHO SHOULD ATTEND
This conference should be of value to all professionals across the entire minerals industry value chain, including:

- Exploration
- Geology
- Mining
- Mineralogy
- Geotechnical engineering
- All metallurgical fields
- SHE practitioners
- Industrial relations and community involvement
**REGISTRATION FEES** — All prices are inclusive of VAT.

Please indicate your choice by (√ tick).

<table>
<thead>
<tr>
<th>Early registration fees before 2 February 2017</th>
<th>Registration fees after 2 February 2017</th>
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<tbody>
<tr>
<td>Author</td>
<td>R6 999</td>
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<tr>
<td>SAIMM Members</td>
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<td>Non Members</td>
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<td>Students/Retired Members</td>
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<td>Students/Retired Members</td>
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**REGISTRATION ONE DAY:** R5 999.00

Delegates may also attend the conference for ONE day only. Please indicate (√ tick) which day you will be attending.

**Cancellation and transfer policy:**
Delegates unable to attend the event may send a substitute delegate in their place. Please send written details of substitution. Written cancellations must be received more than 10 working days prior to the date of the event and will be liable for 50% of the event fee. Failure to cancel, or cancellation received 10 working days or less prior to the event date, will result in liability for the full event fee.

**SOCIAL FUNCTIONS**
- Welcome cocktail party (Thursday 9 March 2017)
- Payement required for additional guests only R250 each

**PAYMENT**

Please include payment itemised as follows:

- Conference registration fee
- Social functions: Cocktail function R250 (guests)
- TOTAL R

Cheques — Please find enclosed a cheque/money order (in SA rands) payable to SAIMM or Credit Cards — Please debit (√ tick) my:

- Visa
- Mastercard
- American Express
- Diners Club

Card No. ..............................................................................................................................

CVC authorisation (last 3 digits on the back of the card) ..........................................................

Expiry date: .................................................................................................................................

Signature: ......................................................................................................................................

Please print name of cardholder: ................................................................................................

**Payment:**
Full payment is due on application for registration. Registration will be confirmed ONLY after payment is received. **PROOF OF PAYMENT** with your invoice number reflected must be sent via fax or e-mail to the Conference Co-ordinator. Delegates who have not paid will not be permitted to attend the conference.

**Our banking details are:**

Bank: Standard Bank
Branch Code: 000205
Account No: 000420974
Account Type: Cheque Account
Swift No: SBZAZAJJ

**FOR FURTHER INFORMATION CONTACT:**

Conference Co-ordinator: Camielah Jardine  E-mail: camielah@saimm.co.za  Tel: +27 11 834 1273/7  www.saimm.co.za

Would you like to become a member of SAIMM? Please indicate by (√ tick)
# Young Professionals 2017—Preliminary Programme

### Day 1–9 March 2017

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>07:00–08:30</td>
<td>Registration</td>
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<tr>
<td>08:30–08:35</td>
<td>Opening Address, S. Nhleko, Chairman YPC</td>
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<tr>
<td>08:35–08:40</td>
<td>Emergency procedures</td>
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<tr>
<td>08:40–08:50</td>
<td>Welcome, Prof. C. Musingwini, President SAIMM</td>
</tr>
<tr>
<td>08:50–09:20</td>
<td>Keynote 1—How to gain, maintain, and sustain industry confidence in your field of experience, N. Siwisa-Damasane, Richards Bay Coal Terminal</td>
</tr>
<tr>
<td>09:20–09:40</td>
<td>Multi-stakeholder collaboration to unlock the potential of deep level mining in South Africa, K.M. Letsoalo, Chamber of Mines, South Africa</td>
</tr>
<tr>
<td>09:40–10:00</td>
<td>Exploration of the South West Precursor, Finsch diamond mine, M. Matabane and T. Khati, Petra Diamonds, South Africa</td>
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<tr>
<td>10:00–10:20</td>
<td>The throughput of mining engineering students in the University of Johannesburg (2009 to 2013 Cohorts), M. Mpanza, University of Johannesburg, South Africa</td>
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<tr>
<td>10:20–10:50</td>
<td>Tea break</td>
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<tr>
<td>10:50–11:20</td>
<td>Keynote 2—Leaders of the Future – how social and technological innovation will demand fundamentally different leadership over time, D. Cook, RlIS, South Africa</td>
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<tr>
<td>11:20–11:30</td>
<td>Sponsorship presentation, Redpath Mining, South Africa</td>
</tr>
<tr>
<td>11:30–11:50</td>
<td>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</td>
</tr>
<tr>
<td>11:50–12:10</td>
<td>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</td>
</tr>
<tr>
<td>12:10–12:30</td>
<td>Purification of effluent from a rare earth elements process by chemical precipitation, C. Sehlola, Mintek, South Africa</td>
</tr>
<tr>
<td>12:30–12:50</td>
<td>Legislation and management practices in mining directed toward protecting water resources, C. Zermatten, SRK Consulting, South Africa</td>
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<tr>
<td>12:50–13:50</td>
<td>Lunch</td>
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### 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
  - **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
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  - **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, RlIS, 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
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  - **12:10–12:30** Purification of effluent from a rare earth elements process by chemical precipitation, C. Sehlola, Mintek, South Africa

### 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, 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. Sifelane, 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, South Africa
Young Professionals 2017—Preliminary Programme

Day 2—10 March 2017

07:00–08:30  Registration

08:30–08:35  Welcome  
S. Nhleko, Chairman YPC

08:35–08:40  Emergency procedures

08:40–08:50  Introduction to YPC  
T. Mmola, President 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. Makhalemle*, S. Mathebula*, N. Od iar†, 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—K. Letsaolo

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. Nyam beni, 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. Ramashau 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. Mathwana, 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—L. Schoeman

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