



NEW TECHNOLOGY

CONFERENCE AND TRADE SHOW

Embracing the Fourth Industrial Revolution in the Minerals Industry

Driving competitiveness through people, processes and technology in a modernised environment

5-6 JUNE 2019 | THE CANVAS RIVERSANDS | FOURWAYS | SOUTH AFRICA

Final Programme

Day 1 – Wednesday 5 June 2019

07:00–08:00 **Early Morning Refreshments and Registration**

08:00–08:05 **Emergency procedures presentation**

08:05–08:15 **Welcome Address - SAIMM President**

A.S. Macfarlane, *Conference Chairperson and Co-director: Mandela Mining Precinct*

SESSION 1:

Session Chairperson: A.S. Macfarlane, *Mandela Mining Precinct*

08:15–08:45 **Keynote Address**

A. Habib, *The University of the Witwatersrand, South Africa*

08:45–09:05 **Breaking new ground: A national resource atlas for South Africa**

R. Kaufholz¹, A. Mello², and G. Güler³, ¹ESRI-South Africa, ²Vuuma, and ³Mandela Mining Precinct, South Africa

09:05–09:25 **AA & AI in mining: Introducing data-driven optimization in a conservative sector**

N. Knoblauch, *IntelliSense.io, United Kingdom*

09:25–09:45 **DRA: Digital technologies in mining**

N. Schoeman, *DRA, South Africa*

09:45–10:05 **Unlocking digital value for South African mining**

G. Mishra, *Accenture, South Africa*

10:05–10:30 **Mid-Morning Refreshments**

SESSION 2:

Session Chairperson: G. Lane, *Vuuma*

10:30–10:50 **Advanced process control and optimization of an underground mine cooling system**

L.C. Coetzee and M. Saffy, *Mintek, South Africa*

10:50–11:10 **New approaches in rock cutting and shaft sinking: A case study in potash**

T. Ahlbrecht¹, E. Neye², B. Künstle², and P. Rennkamp², ¹Deilmann Haniel GmbH and ²Herrenknecht AG, South Africa
(PRESENTED BY D. Roos, *Herrenknecht AG, South Africa*)

11:10–11:30 **Demonstration of operating mine's digital twin - MineRp VR team**

F. Megannon, *MineRp, South Africa*

11:30–11:50 **Master drilling: Technology and innovation initiatives**

H. Maree, *Master Drilling, South Africa*

11:50–12:10 **Calibrated rockfall mitigation through the use of photogrammetric modelling techniques**

R. Bush, *SRK Consulting, South Africa*

12:10–12:50 **Lunch**

SESSION 3:

Session Chairperson: M. Woodhall, *MineRP*

12:50–13:20 **Keynote Address**

G. Malherbe, *VCI International, South Africa*

13:20–13:40 **Sponsor Presentation: Advanced network platforms: Challenges and considerations**

C. Deacon, *MST Global, South Africa*

13:40–14:00 **Update on the SAMERDI real-time information management systems programme (RTIMS)**

J-J. Verhaeghe, *Mandela Mining Precinct, South Africa*

14:00–14:20 **Key components of future mining**

N. Walker, *ABB South Africa*

14:20–14:40 **Development of infield and online data collection systems**

P. Burmeister and R. Sutcliffe, *SRK Consulting, South Africa*

14:40–15:05 **Afternoon Refreshments**

15:05–15:25 **Commercialisation of South African platinum-based fuel cell technologies**

S. Blair, *HyPlat (Pty) Ltd, South Africa*

15:25–16:10 **Panel Discussion: The Impact of people in the Minerals Industry**

16:10–16:15 **Day 1 Closure**

A.S. Macfarlane, *SAIMM President*

16:15–18:15 **Conference Network Function**



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Day 2 – Thursday 6 June 2019

07:00–08:00 **Early Morning Refreshments and Registration**

08:00–08:05 **Emergency procedures presentation**

08:05–08:15 **Welcome Address**

A.S. Macfarlane, *Conference Chair Person and Co-director: Mandela Mining Precinct*

SESSION 1:

Session Chairperson, I.J. Geldenhuys, Mintek

08:15–08:45 **Keynote Address: Challenges in mining for the fourth industrial revolution**
S. van der Woude, *Minerals Council of South Africa, South Africa*

08:45–09:05 **The local 4.0 revolution is alive and well**
J. Carstens, *Memsa, South Africa*

09:05–09:25 **Should mines be using workers' personal mobile phones to drive the safety, operational and societal agenda of a mine?**
J. van Heesch and K. Anderson, *Wyzetalk,*

09:25–09:45 **Short interval control in a digital mine**
E. Strydom, *MineRP, South Africa*

09:45–10:05 **Innovation with drones covering automation and internet of things (IoT)**
W. Tucker, *Accenture, South Africa (PRESENTED BY W. Peddie, Accenture, South Africa)*

10:05–10:30 **Mid-Morning Refreshments**

SESSION 2:

Session Chairperson: C. Bergmann, Mintek

10:30–10:50 **Session Sponsor: Digital transformation: execution excellence**
M. Evans, *Partners in Performance, South Africa*

10:50–11:10 **The development of mobile applications for smart data capture in mining**
P. Naidoo, *SRK Consulting, South Africa*

11:10–11:30 **A mine of technology opportunities: performances, global threats and ways forward in the South African mining equipment industry**
S. Torreggiani and A. Andreoni, *University of London, United Kingdom*

11:30–11:50 **Digital champions: How industry leaders build integrated operations ecosystems to deliver end-to-end customer solutions**
P. Theron, *PWC, South Africa*

11:50–12:10 **New heavy mineral spiral for recovery of ultrafine chromite**
R. Molehe, *Multotec Process Equipment, South Africa*

12:10–12:40 **Lunch**

SESSION 3:

Session Chairperson: A. Mello, Vuuma

12:40–13:00 **Mining in the digital Age: Transforming your tsunami of data into insightful information**
A. Gower, *Baringa Partners, South Africa*

13:00–13:20 **GIS enabled, web-based TSF surveillance solution**
A. Louw, N. Mincione, and R. van der Colf, *SRK Consulting, South Africa*

13:20–13:40 **APM and APC –realtime control and optimization prescriptive maintenance tools for the modern day plant**
K. Brooks¹, R. Dreyer¹, and M. Westcott², *¹BluESP and ²4sight, South Africa*

13:40–14:00 **Afternoon Refreshments**

14:00–14:25 **Sponsor Presentation**
Sandvik

14:25–15:10 **Panel Discussions: What does Industrial Revolution 4.0 really mean to the minerals industry?**

15:10–15:20 **Conference Closure**
A.S. Macfarlane, *SAIMM President*