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 Mintek

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, RIIS, 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. Moliaa*, 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. Siilo 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
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. Makhalemle*, 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. Uhengo, 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. Nikosi, 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. Ramashawa 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—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