The 4th industrial revolution of underground geological mapping
M. Mpanza, University of Johannesburg

Advanced analytics and simulation modelling-Using algorithms and artificial intelligence to process data
A. Kazerouni, Rhodes University

Rethinking minerals processing with digital
M. Trimich, Metso FZE

Interactive visualization of pyrometallurgy phase diagrams
M.W. Erwee and Q.G. Reynolds, Mintek

The socio-economic effects of mechanizing and/or modernizing hard rock mines in South Africa
H.S. Gumede, Ocean Business Process Re-engineering

Analytics in mining safety through digitization
M. Broder, Simplus Innovation

Python-based machine learning tools for metallurgical data clustering
Q.G. Reynolds, M.W. Erwee, and P. Moodley, Mintek

Using Emerging 3D Technology to make mines safer
G. Ockhuizen, GadgetBoy 3D Solutions

Digital sensors, smart software and big data driving the future of environmental risk and safety in mining
H. Pienaar, Adroit

Intelligent Mining™: Leveraging eco-systems, edge analytics and 4th industrial technologies to deliver real value
E. Croser, J.A. du Plessis, and R. Jacobs, IoT.nxt

IoT disrupting fleet management systems thinking
L. Möller and H. Becker, Krypton Mining

On the slope of enlightenment – Virtual reality success stories in mining
E.A. van Wyk¹ and M.W. Prinsloo², 'Tshwane University of Technology and ²STS3D

Real time digital logbooks and business intelligence for mines
C. Viljoen, MMM Technologies

Digital operation management system: the first step towards digital transformation
K. van Nes, Hatch Digital

The role of web-based applications in mine water management
X. Adams, SRK

Digital twins – tools for realtime control and optimization and prescriptive maintenance
K. Brooks, R. Dreyer, F. Pieterse, and M. Westcott, BuEsp, 4 Sight Holdings

An integrated approach to operating and improving metallurgical processes
J.H. Zietsman, Ex-mente

From core logging to washability using artificial intelligence
M.I. Dorland and H.C. Dorland, Virtual Geomet (Pty) Ltd

Digital explosives management
V. Dhookie, Kyo Solutions

Lifting the lid on underground mining operations
A. Gardiner, Minetec Pty Ltd

Aligning corporate strategy with mine digitization
K. Ampolo, University of Queensland

Emerging technological trends and importance of open innovation in disrupting Mining Industry
G. Mishra, Transrupt

Value driven digital transformation in mining
G. Huckle, Partners in Performance

Towards Digital Transformation in Mining
P. Putter, MineRP

South African Mining Industrialization: Vision 2050 What are the prerequisites of the Fourth Industrial Revolution?
M. Smeiman, Msanda

The real value of predictive maintenance
K. Naidu, Sandvik

Remote vs Virtual monitoring for underground mine ventilation
M.P. Malthwana, University of the Witwatersrand

How a value maximisation approach combined with advance analytics and digital in the plant can make South African mining cost competitive again
G. Nei and A. Rajagopal, McKinsey & Company

Cost effective digital implementation at South African Mines: Our experiences
E.K. Leeka, T.C. van Schalkwyk, and M. Magro, Anglo American

Development of a digitalization platform to combine process insights with actionable outcomes

New drilling technology for providing real-time rock-recognition and its potential for optimizing mining and metallurgical processes
P. Piper, E. Rankhododo, K. Bro, and P. Martensson, Groundwork Consulting Rockma

Practically road mapping the technology and digital transformation in mining
C. Holtzhausen and T. Moodley, Operational Performance and Business Improvement Hatch Digital

Digitalization – What Next? – The stakeholder view
C. Holtzhausen and T. Moodley, Operational Performance and Business Improvement Hatch Digital

Using Internet-of-Things and Industry 4.0 concepts to improve end to end mineral processing in Mining
A. Haasbroek, R. Brown, J. Roux, and A. Loubser, StoneThree, MineRP

An integrated capacity utilization through appropriate combination of constraints analysis, Integrated Planning Process (IPP) and Management Practices
G. Hitashwayo, Proudfoot

The Digital Mining Value Chain: Mine Planning to Logistics Execution Reality or just another Super Hero story?
M. Smeiman, Msanda, and J. Roux, MineRP

Industry X.0 - The digital reinvention of industry
W.V. Tucker, Accenture

Tools for use in a digitized mine
R.E. Tessonford, T.P. Phahlane, and W.A.S. Fourie, Komatsu Mining Corp. Group

Dark data? The use of sensor data in process monitoring and control
M. Bauer, University of Witwatersrand

Advanced Process Control in coal beneficiation
V. Classen, Exxaro

Kumba’s technology journey to modernization of operations
B. Ntsoelengoe, Anglo American

A mine twin was born - Augmented reality
F.J. Grobler and B.H. Forbes, Graphic engineering solutions and services Pty Ltd

Digital Revolution and IoT – but has the Mining Industry already been doing Industrial IoT?
C. van Wyk, OSIsoft

Does the Mining Industry have an appreciation for the business risks associated with Cyber Security?
C. Viljoen and G. Lane, Vuuma

Defined Digital Strategies or a ‘sweet shop’ of digital solutions.
I.G. Lane and H. Sinko, Vuuma