



EVOLUTION OF THE 4IR MINING SEMINAR

Discover the future of mining

2025

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The South African Colliery
Managers Association



Association of Managers
of South Africa





A Journey Towards the Future of Mining

Since its inception in 2019, the 4IRinMining Seminar has been at the forefront of advancing the conversation around the Fourth Industrial Revolution (4IR) and its integration into the South African mining industry. This seminar was the brainchild of Bokang Kelepa and Baletsema Mining & Technology Services, with the vision of breaking down silos between government, academia, mining companies, and unions to ensure that South Africa is well-prepared for the technological transformations brought by 4IR.



The Beginning

2019



A Journey Towards the Future of Mining

The inaugural 4IRinMining Seminar was held in partnership with the University of South Africa (UNISA), with the goal of fostering collaboration among all key stakeholders in the mining industry.

This event brought together world-renowned experts like Prof Serkan Saydam (University of New South Wales), Dr Mbuyu Sumbwanyambe (UNISA), and Elad Abbo (Israel Aerospace Industries) to discuss how 4IR technologies could revolutionise mining operations.

The seminar was a resounding success, marking a significant milestone in South Africa's journey toward integrating 4IR technologies into its mining practices. Unfortunately, the COVID-19 pandemic in 2020 led to a temporary pause, with no seminars held in 2020, 2021, or 2022.

Returning Stronger

2023

In 2023, the seminar made its much-anticipated return, this time in collaboration with Full Potential. The theme focused on 4IR Technology and Innovation: What does this mean for our union leaders in the mining sector?

This seminar aimed to empower union leaders with the knowledge to navigate the complex impacts of technology and innovation on labour and mining operations. It provided a platform for real-time engagement between unions, regulators, academia, mining executives, and corporate leaders. Attendees recognised the event's importance in fostering continued dialogue on how 4IR is reshaping the mining industry.

A DAY OF LEARNING

2024



Held on **7 November 2024** at the **University of Johannesburg** and in partnership with **SAPMA, AMSA and MPSA**, this seminar was a landmark event themed **A Day of Learning**.

Key highlights included:

- **Dr. Gargi Mishra's** keynote on Re-imagining mines with AI and Digital Innovation, emphasizing that 4IR is about possibilities, not just tools.
- Insights from mining giants like **Goldfields and Tharisa Minerals**.
- Academic contributions from **UJ and Wits** on integrating AI into mining curricula.
- **Michael Bruno of Nerospec** demystified AI's accessibility and practical value for all levels of the mining workforce.

Bokang Kelepa, the founder, reminded attendees:

"The whole point is for **people to learn and go implement**... I may be the founder, but there's so much that I learn and take away."

Kelepa quoted Alvin Toffler, saying:

"The illiterate of the **21st century** won't be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

The program **included panel discussions, case studies, and cutting-edge innovations from OEMs**, bridging the gap between labour, technology, and policy.



Introducing 2025: Re-Investing Mining

This year's theme, "Re-Investing Mining – Building Competent, Sustainable Mines of the Future", calls the sector to reimagine how we invest in people, partnerships, innovation, and planet-conscious practices. As the industry faces escalating ESG demands, workforce competency gaps, and technological disruption, the 2025 seminar aims to:

- Rethink how capital and technology investments deliver inclusive and lasting value.
- Equip leaders and workers with future-ready skills for sustainable operations.
- Promote digitisation and automation that aligns with local job creation and empowerment.
- Cultivate resilience through strategic reinvestment in African mining ecosystems.
- Champion cross-sector collaboration for circular, regenerative mining practices.

This two-day seminar at Wits University (24–25 July 2025) offers a unique blend of thought leadership, training, innovation, and policy dialogue.



4IRinMining Summit 2025

Why You Should Attend

Whether you're a mining executive, union leader, policymaker, technology provider, academic, or student, this seminar is your opportunity to:

- Gain firsthand insight into AI, IoT, robotics, ESG integration, and next-gen operational strategies.
 - Hear from global experts, OEMs, and innovators at the forefront of mining transformation.
 - Engage in interactive panels and real-time solution-building sessions.
 - Explore product showcases and case studies from across the continent.
 - Build cross-sector networks to shape South Africa and Africa's mining future
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Who Should Attend?



Mining and Exploration Companies



Original Equipment Manufacturers (OEMs) and Tech Startups



Trade Unions and Labour Leaders



University Researchers and Students



ESG Specialists and Policy Makers



Investment and Sustainability Stakeholders



Register Now

Secure your spot for **Africa's premier seminar**
on the **future of mining**:



24 – 25 July 2025

WITS University | L101 WITS School of
Education Education Campus |
Parktown | Johannesburg

www.4irinmining.com

HOW TO REGISTER

Join the movement
transforming mining.

Don't miss out on this powerful day of learning and engagement!
Register today to book your spot: www.4irinmining.com



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