



MINTEK **Sci**

SCIENCE CONVENTION OF INNOVATORS
IN SCIENCE, TECHNOLOGY AND ENGINEERING



SAIMM
THE SOUTHERN AFRICAN INSTITUTE
OF MINING AND METALLURGY



▶ THE NEXT FRONTIER:

EMERGING SCIENTISTS DRIVING CHANGE

02 OCTOBER 2025
VENUE: MINTEK

CALL FOR ABSTRACTS

Mintek extends a warm invitation to researchers aged 35 and below from academia, industry, and research institutions to **join us at Mintek-Sci (Science Convention for Innovators)**. We invite you to be part of this vibrant gathering and contribute significantly to the advancement of mineral and metallurgical innovation.

Your expertise and insights are crucial in propelling our industry forward. By submitting abstracts aligned with the symposium themes, you will not only enrich the collective knowledge but also play a pivotal role in shaping the future of minerals and metallurgy.

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ABOUT MINTEK–SCI

Mintek is hosting its **second annual Mintek-Sci** (Science Convention of Innovators), a symposium aimed at young researchers under 35, both from Mintek and other institutions to showcase their cutting-edge work across diverse themes.

Mintek-Sci highlights Mintek's commitment to nurturing the next generation of researchers and strengthening its position as a leader in advancing science and technology in the industry. This convergence of experience and innovation is crucial in shaping the future of mineral and metallurgical advancements, providing a unique space for these emerging talents to showcase their cutting-edge work across diverse themes. **CPD points will be earned for participation.**



OBJECTIVES

- **Foster knowledge exchange** between young researchers and industry professionals, promoting mutual learning and insight-sharing.
- **Catalyse the career growth of emerging researchers** by recognising and showcasing their work to advance their professional development.
- **Drive innovation** by inspiring fresh perspectives, shaping the future of mineral and metallurgical advancements through a blend of experience and innovation.
- **Promote collaboration among emerging researchers**, fostering a mix of ideas and expertise.

THEMES



Critical Minerals

- Sustainable Extraction Techniques
- Technological Innovations in Processing
- Circular Economy in Critical Minerals



Energy

- Renewable Energy in Mining
- Fuel Cells
- Energy Storage
- Hydrogen
- Energy Efficiency
- Optimizing energy use in milling and pyrometallurgical processes.



Emerging Technologies

- Machine Learning and AI
- Process Modelling
- Process Control
- Digital Twinning



Unlocking Resources - Ways of the Future

- Sustainable Extraction from Low-Grade and Secondary Resources



Sustainability & Circular Economy

- Water treatment strategies
- Mine rehabilitation practices
- Asbestos Rehabilitation
- Sustainable water use
- Carbon emissions reduction



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WHO CAN PARTICIPATE?



Prospective presenters aged 35 and under (as at 02 October 2025) from industry, academia, and research institutions are invited to contribute to Mintek-SCi by submitting abstracts aligned with the conference themes. In the case of abstracts with multiple authors, at least **50%** of the authors must be aged 35 or under to ensure a diverse and youthful perspective in the presentations. This requirement is designed to foster a dynamic exchange of ideas and promote the involvement of emerging talents in the scientific community.

GUIDELINES

Authors may submit abstracts or standalone presentations.

- In person and virtual presentations will be accepted.
- Abstracts should **not exceed 500 words** and must include a clear title, author(s) names, affiliations, and contact details.
- Abstracts may be submitted to **minteksci@mintek.co.za**

KEY DATES

- Submission of Abstracts: **30 May 2025**
- Review Complete: **20 June 2025**
- Invitation to submit extended abstracts: **30 June 2025**
- Date of event: **02 October 2025**
- All submissions must be in English.
- Clearly provide contact information for all authors and ensure accurate email addresses for correspondence.
- Submissions should align with the symposium themes and sub-themes and articulate the significance and contributions of the proposed work.

The review process will evaluate each abstract rigorously, ensuring only the most compelling ideas rise to the forefront. We invite you to submit your contributions, which will drive meaningful change and create a lasting impact on the future of our industry. **Join us in shaping progress together!**