

MODERN INNOVATIONS IN MINING

PARTICIPATE IN THE 2026 SME MEDIA CONTEST:



UNDERGROUND ROBOTICS



Underground mapping with terrestrial and aerial robotics. Bringing these two approaches together could develop better ways to inspect mine structures and predict safety threats.

[Ohio, USA](#)

Photo: Richard Bishop



HEAVY MACHINERY



Sunset over the mining operations at Antamina, with a majestic haul truck framed beneath the sky and the towering mountains of the Andes.

[San Marcos, Ancash, Perú](#)

Photo: Mishell Stephany Fernandez Flores



DRONE TECHNOLOGY



A panoramic view captured by a drone, showcasing the vastness and detail of the mining environment. This highlights the scope and precision of modern mining operations, a testament to how technology broadens our perspective on the future.

[Newmont Yanacocha Mine, Cajamarca, Perú](#)

Photo: Marco Esau Portal Valdivia



MINERAL PROCESSING



Thickeners play a crucial role in mineral processing by concentrating slurry, reducing water content, and optimizing tailings management, making them essential to the efficiency and sustainability of copper extraction operations.

[Freeport Morenci Copper Mine, Morenci, Arizona, USA](#)

Photo: Chandima Subasinghe



TAILINGS MANAGEMENT



Exploring underground together: Ensuring sustainable and innovative tailings storage solutions through advanced geotechnical design and a commitment to environmental safety for long-term mine stability and compliance.

[Franklin, TN, USA](#)

Photo: Venkata Aneesh Kona

