Special Issue

Artificial Intelligence Applications in Mining and Mineral Processing

Message from the Guest Editor

This Special Issue, entitled “Artificial Intelligence Applications in Mining and Mineral Processing”, focuses on presenting research into image-based or video-based AI techniques used in mines. Our objective is to establish effective communication between AI researchers and the intelligent mining community, push forward applications of AI-driven machine vision techniques for intelligent mining, present research articles and encourage discussions centered around the utilization of artificial intelligence techniques in mining and mineral processing. In particular, this includes methods of image super-resolution reconstruction for the degraded images of mine roadways with special lighting and dust environments, unsupervised cross-view re-recognition methods for the weak characteristic personnel in the mine roadways with complex backgrounds, identification methods and lightweight recognition models for safety hazards in the key production scenes of mines, and the three-dimensional virtual reconstruction technology of mining scenes based on video content analysis and real-time control data and image-based particle shape measurement of pulverized coal.

Guest Editor

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Deadline for manuscript submissions

closed (20 October 2024)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/158527

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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