Special Issue

Advanced Technology for Mine Disaster Monitoring and Prevention

Message from the Guest Editors

The monitoring and prevention of mining disasters primarily relies on intelligent monitoring, early warning, and prevention technologies for different types of disasters such as coal and gas outbursts, rock burst, roof caving, high-stress water inrush, gas explosions, surface subsidence, and tailings dam breaches. Traditional monitoring systems and empirical prevention and control methods are no longer able to cope. Therefore, this Special Issue aims to provide a platform for global researchers to engage in broader scientific and technological discussions on monitoring and early warning technologies as well as prevention and control systems for deep mining disasters. The discussion topics include, but are not limited to, the evolution mechanism of deep mining disasters, monitoring and early warning of deep mining disasters, and the prevention and control of deep mining.

Keywords: intelligent monitoring; disaster warning system; artificial intelligence prediction; smart mining; disaster prevention and control; digital twin; multi-source data fusion.

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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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