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Environmental Issues of Blasting

Applications of Artificial Intelligence Techniques

Springer

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About This Book

Blasting is an important operation in any mining or civil engineering projects for breaking hard rock. During blasting, only 25–30% explosive energy is utilized for breaking rock for desired fragmentation, throw, and formation of muck pile. Balance energy is converted into undesired environmental effect of backbreak, flyrock, air over pressure, and ground vibration. With the advancement of artificial intelligence and machine learning techniques, accuracy in prediction of environmental effects due to blasting has improved. This book covers the successful use of these techniques in predicting, minimizing, and controlling the mentioned blasting environmental issues. A critical and state-of-the-art review of the available artificial intelligence and machine learning models in solving the blasting environmental issues is provided in this book.

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