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Nota di contenuto	1. An Overview of Blasting Operations and Possible Techniques to Solve Environmental Issues of Blasting -- 2. Review of Empirical and Intelligent Techniques for Evaluating Rock Fragmentation Induced by Blasting -- 3. Applications of AI and ML Techniques to Predict Back-Break and Flyrock Distance Resulting from Blasting -- 4. Blast-Induced Air and Ground Vibrations: A Review of Soft Computing Techniques.
Sommario/riassunto	This book gives a rigorous and up-to-date study of the various AI and machine learning algorithms for resolving environmental challenges associated with blasting. Blasting is a critical activity in any mining or civil engineering project for breaking down hard rock masses. A small amount of explosive energy is only used during blasting to fracture

rock in order to achieve the appropriate fragmentation, throw, and development of muck pile. The surplus energy is transformed into unfavourable environmental effects such as back-break, flyrock, air overpressure, and ground vibration. The advancement of artificial intelligence and machine learning techniques has increased the accuracy of predicting these environmental impacts of blasting. This book discusses the effective application of these strategies in forecasting, mitigating, and regulating the aforementioned blasting environmental hazards.