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| Titolo | The Hoek-Brown Failure criterion—From theory to application // by Jianping Zuo, Jiayi Shen |
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| Descrizione fisica | 1 online resource (XV, 225 p. 141 illus., 115 illus. in color.) |
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| Soggetti | Geotechnical engineering Mechanics Mechanics, Applied Engineering geology Engineering—Geology Foundations Hydraulics Geotechnical Engineering & Applied Earth Sciences Theoretical and Applied Mechanics Geoengineering, Foundations, Hydraulics |
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| Nota di contenuto | The Hoek-Brown failure criterion -- A 2-D theoretical derivation of the Hoek-Brown criterion -- A 3-D theoretical derivation of the Hoek-Brown criterion -- The Hoek-Brown brittle-ductile transition analysis -- The Hoek-Brown constant m_i -- The Geological Strength Index -- The blast damage factor D -- A gas-mechanical coupled Hoek-Brown criterion -- An UCS Model for Anisotropic Blocky Rock Masses satisfying the Hoek-Brown criterion -- Non-linear shear strength reduction method for slope stability based on the HB criterion -- Chart-Based Slope Stability Assessment Using the Generalized Hoek-Brown Criterion -- The Effects of Blast Damage Zone Thickness on Rock Slope Stability. |
| Sommario/riassunto | This book provides a comprehensive coverage of the theory and principle of the Hoek-Brown (HB) failure criterion, methods or |

guidelines for estimating the HB input parameters, and the methodology of application of the HB criterion in rock engineering projects. It aims to help researchers, engineers and research students who work in the area of rock mechanics and mining engineering. Academics can quickly obtain an overview of the state of the art of the theory and principle of the Hoek-Brown criterion by reading the book before they advance their researches on the topics related to rock failure criteria. Geotechnical engineers can select appropriate Hoek-Brown input parameters for the design and analysis of rock engineering projects with the help of the principles introduced in this book. Research students may use the book as a textbook to learn the principle of rock mechanics related to rock mass properties.
