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abstracts

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Table of content

MINING

Determination of Methane Content at Mao Khe Coal Mine from Current Mining to -450 Level in Vietnam Van Thinh NGUYEN, Cao Khai NGUYEN, Xuan Ha TRAN, Hong Cuong NGUYEN	13
A Lasso and Elastic-Net Regularized Generalized Linear Model for Predicting Blast-Induced Air Overpressure in Open-Pit Mine BUI Xuan Nam, NGUYEN Hoang, TRAN Quang Hieu, BUI Hoang Bac, NGUYEN Dinh An, NGUYEN Quoc Long, LE Thi Thu Hoa, PHAM Van Viet	14
Estimation of Truck-Shovel Dispatching in Cao Son Open-Pit Coal Mine and the Ability in Applying Information Technology for Increasing its Efficiency PHAM Van Hoa, BUI Xuan Nam, LE Van Quyen, LE Thi Thu Hoa, PHAM Van Viet	15
Study on Relationship of Duct Leakage and Parameters of Ducts in Quang Ninh HUONG Thao Dang, VU Chi Dang	16
Study on some Solutions for Enlarging the Application Scope of the Fully Mechanized Longwall Coal Mining Technology According to Seam Dip Angle at Underground Coal Mines in Quang Ninh Coalfield Trung NGUYEN DUC, Waldemar KORZENIOWSKI, Krzysztof SKRZYPKOWSKI, Nguyen PHAM TRUNG	17
The Possibilities of Revitalization of Post-Mining Areas - the Polish and Vietnamese Examples JADWIG Zuzanna, KONALSKA Natalia, TRAN Linh	18
Experimental Research of the Supply Air Stream to Limited Space Trung VU, Marek BOROWSKI, Michal KARCH	19
Assessing the Current Status of Underground Mine Ventilation System in Thanh Cong-Cao Thang Area, Hon Gai Coal Company, Quang Ninh Region, Vietnam Cao Khai NGUYEN, Van Thinh NGUYEN	20
Study on the Possibility of Using Artificial Pillar to Replace the Coal Pillar Protecting Roadway During the Process of Exploitation in Underground Coal mines in Quang Ninh, Vietnam DINH Van Cuong, TRAN Van Thanh, NGUYEN Anh Tuan	21
The Impact of Asymmetry to the Operating Efficiency of 3 Phase Induction Motors DO Nhu Y	22
Power Quality Analysis of the Grid-Connected PV System Using Microinverter DO Nhu Y, NGO Xuan Cuong	23
Improving the Operation of Earth Fault Relays by Auto Earthing-Connection at Earth Fault Situations in 6kV Mining Grid of Quang Ninh HO Viet Bun, LE Xuan Thanh	24
Impact of Load Capacity on Voltage and Current Waveform Distortion in Mining Power Grid LE Xuan Thanh	25
Developing an Advanced Soft Computational Model for Estimating Blast-Induced Ground Vibration in Nui Beo Open-pit Coal Mine (Vietnam) Using Artificial Neural Network NGUYEN Hoang, BUI Xuan Nam, TRAN Quang Hieu, NGUYEN Quoc Long, VU Dinh Hieu, PHAM Van Hoa, LE Qui Thao, NGUYEN Phu Vu	26
Coal Resource/Reserve Potential in Quang Ninh Basin Northeastern Vietnam NGUYEN Hoang Huan, NGUYEN Tien Dung, KHUONG The Hung	27
Green Growth in Mining - the Trends of Southeast Asia and Lessons for Vietnam NGUYEN Thi Kim Ngan	28
A Case Study on the Determination of the Excavated Trench Depth in Unsaturated Soil Constructed by Trench Method Without Supporting Structures	

NGUYEN Xuan Man, DO Thi Them	29
Recovery of Clean Coal from the Contaminated Waste of Coal Mines in Quang Ninh Province NHU Thi Kim Dung, VU Thi Chinh	30
Models of the Ore Deposit Cutting by Means of Room and Pillar System with the Use of Computer-Aided Design Krzysztof SKRZYPKOWSKI, Waldemar KORZENIOWSKI	31
Geotechnical Mechanisms of Roof Fall Ahead of Face Support in Longwall Mining TIEN Dung Le, MANH Tung Bui, DUC Hung Pham, QUANG Hung Dang	32
Solution for Reduce Air Temperature in the 7.3.1. Longwall of Halam Coal Mine, Vietnam Van Thinh NGUYEN, Van Quang NGUYEN	33
Forecast of Coal Seam Methane Escape when Exploiting at Khe Cham 1 Coal Mine in Vietnam Van Thinh NGUYEN, Vu Chi DANG, Van Quang NGUYEN	34
Status and Prospects of Underground Coal Mining Technology in Vietnam Tien Dung Le, Xuan Nam Bui	35
Comparison of Vietnam and Poland Industrial Wastewater Regulation: A Study of Trang Bach Coal Mine Wastewater Treatment HA Doan Manh, MIJAŁ Waldemar, Polek Daria	36
The Use of Computer Programs to Solve Ventilation Issues in Vietnamese Coal Mines HOA Bui, Piotr ŻYCZKOWSKI, Rafał ŁUCZAK	37
Comparison of Vietnam and Poland Coal Resources & Coal Demand in the Past and How it Will Change in Future HA Doan Manh, MIJAŁ Waldemar, Polek Daria	38
Determining for an Output Capacity of Dimension Stone Exploitation from the Computer Simulations to Generate the Fracture Network in 3D: Case Study in some Dimensional Stone Quarries in Vietnam NGUYEN Anh Tuan, PHAM Van Viet, LE Van Quyen, NGUYEN Tuan Anh, LE Thi Hai	39
The Status and Prospect of Mining Technology in Vietnam Underground Coal Mines Hai DUONG DUC, Quang Dao Hong, Marian TUREK, Aleksandra KOTERAS	40
Climatic Hazard Assessment in Selected Underground Hard Coal Mines in Vietnam Quan Trung Tien, Rafał Łuczak, Piotr Życzkowski	41
Rational Grinding Circuit for Siliceous Apatite Ore Type III of Lao Cai Vietnam Luan Pham VAN, Phu Nguyen NGOC, Ha Le VIET	42
Choice of Powered Roof Support FAZOS-15/31-POz for Vang Danh Hard Coal Mine Krzysztof SKRZYPKOWSKI, Waldemar KORZENIOWSKI, Trung Nguyen DUC	43

GEOLOGY GEOPHYSICS

Origin and Closure of the Paleotethys Ocean in Indochina Jan GOLONKA, KHUONG The Hung, Michał KROBICKI, Tadeusz SŁOMKA, NGUYEN Van Giang, Aleksandra GAWĘDA	47
Structural Development of the Lao Cai Basin in Vietnam, Red River Fault Zone Piotr Jan STRZELECKI, D. P. PHAN, Antoni K. TOKARSKI, Anna ŚWIERCZEWSKA, Marta WALICZEK, Marek KRĄPIEC, N.Q. CUONG	48
Comparing Composition and Bulk-Rock Characteristics of Raw Material for Decorative Stone in Suoi Giang Area (Yen Bai) and Sa Nghia Area (Kon Tum) GIANG Nguyen Khac, Wojciech SMOLIŃSKI, Lucyna NATKANIEC-NOWAK, Magdalena DUMAŃSKA-SŁOWIK, Piotr GUNIA, BAN To Xuan, TU Le Thi Ngoc, VAN Anh Pham Thi, LIEU Le Thi Thu, SON La Mai	49
Meionitic Scapolite from Cho Don Gabbro, NE Vietnam - Constraints from Mineralogical and Geochemical Data	

Determining for an Output Capacity of Dimension Stone Exploitation from the Computer Simulations to Generate the Fracture Network in 3D: Case Study in some Dimensional Stone Quarries in Vietnam

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abstract

In dimension stone quarry exploitations such as the marble quarry, a literature review of the existing numerical modelling techniques has been carried out. According to Distinct Element Method, discontinuities have been treated as boundary conditions between blocks and, consequently, an accurate knowledge of joint distribution and orientation was required. The result of analysing data and simulating in the fracture rock environment, which is applied to a mining condition of the dimensional stone quarries. The research we introduce in the output capacity of the dimension stone quarry from the computer simulations to generate the fracture network in 3D with an aim of evaluating the size of the blocks. The results of numerical models have been used to optimize some of the technical parameters for dimensional stone extraction and ensuring stable bench in the mining operation.

Keywords: discontinuities, fracture network, modelling, dimension stone quarry



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