

CONTENTS

	Page
Mining	5
V. F. Dyomin, N. A. Nemova, T. V. Dyomina, Sh. B. Zeytinova. Control over geomechanical processes intended to improve a coal-and-rock mass stability	5
M. B. Nurpeisova, D. M. Kirgizbayeva, K. Kopzhasaruly. Innovative methods of the rock mass fractures survey and treatment of its results	11
Solid-state physics, mineral processing	19
O. I. Peredriy, O. V. Pakholyuk. Research of hydrophysical properties of coatings based on full aluminosiloxane polymer	19
Geotechnical and mining mechanical engineering, machine building	24
B. V. Vinogradov, D. O. Fedin. The stiffness of The Open Gearing of Tumbling Mills	24
Zh. Zh. Zhunusbekova, A. S. Kadyrov. Study of digging machine flat element loading in clay solution	30
O. O. Sdvyzhkova, D. V. Babets, K. V. Kravchenko, A. V. Smirnov. Determination of the displacement of rock mass nearby the dismantling chamber under effect of plow longwall	34
Xiongming Lai, Jianhang Su, Cheng Wang, Yong Zhang, He Huang. General most probable point based approach for reliability index computation	42
Xiang Han. Influence of Vibration Load on Elastohydrodynamic Lubrication of Texture Surface	51
E. S. Platonova, G. S. Zhetesova, V. M. Yurov, S. A. Guchenko. Anticorrosion and strengthening coatings for mining equipment	55
Electrical complexes and system	60
D. O. Kulahin. Rolling electrical complex on the basis of the criterion of minimizing the area under the curve of motion	60
T. M. Lytvynenko. Synthesis of high-voltage converter for electrotechnology	67
Power supply technologies	74
Ya. S. Paranchuk, R. Ya. Paranchuk. Neutral network system for continuous voltage monitoring in electric arc furnace	74
Environmental safety, labour protection	81
V. Ye. Kolesnik, A. V. Pavlichenko, Yu. V. Buchavy. Determination of dynamic parameters of dust emission from a coal mine fang	81
S. I. Cheberiyachko, O. O. Yavorska, V. V. Tykhonenko. Determination of insulating properties of half-masks of respirators in terms of pressure difference	88

Information technologies, systems analysis and administration	93
S. V. Panchenko, T. V. Butko, A. V. Prokhorchenko, L. O. Parkhomenko. Formation of an automated traffic capacity calculation system of rail networks for freight flows of mining and smelting enterprises.	93
Ou Ye, Zhanli Li. Similarity distance based approach for outlier detection by matrix calculation	99
Changwang Liu, Chao Yin, Yihua Lan. Improved binaryarity-collision algorithm for rfid	105
Cuijie Zhao, Wei Yao. Method of Image Denoising Based on Sparse Representation and Adaptive dictionary	110
Xiongjun Wen, Qun Zhou, Sheng Huang. A differential clustering algorithm based on elite strategy	116
Liu Ning. Ensemble classification algorithm based improved SMOTE for imbalanced data	122
Guangbin Sun, Hongqi Li, Haiying Huang. Improved K-means algorithm automatix acquisition of initial clustering center	127
Economy and management	133
O. V. Ivashchuk, L. M. Radzikhovska. The introduction of the electronic form of control measures as a means of corruption prevention in higher education	133
O. O. Maslak, K. O. Doroshkevych. Enchantment of the information component of innovation development of industry	139
Erwei Han, Huifeng Xue. Building Evaluation System of Enterprise Network Capability by Fuzzy Comprehensive Evaluation Method	145
<i>Implementation of international standards for sustainable development of industrial sector</i>	151
M. Schmidt, D. Palekhov, V. Shvetz, L. Palekhova. Partnership between technical universities for promoting knowledge about sustainability standards within the higher education curriculum	152
D. Palekhov, B. Hansmann. Functions of voluntary sustainability standards in the global value chains	157
L. Palekhova. Achieving the competitiveness through public accountability on sustainable development	162