

CONTENTS

Geology	5
O. M. Karpenko, V. V. Ohar, I. O. Karpenko, I. M. Bezrodna. Differentiation of Rudov Beds based on the statistical methods on geological and geophysical data	5
Mining	11
A. O. Ihnatov, Ye. A. Koroviaka, Jan Pinka, V. O. Rastsvetaiev, O. O. Dmytruk. Geological and mining-engineering peculiarities of implementation of hydromechanical drilling principles	11
A. V. Kosenko. Improvement of sub-level caving mining methods during high-grade iron ore mining	19
D. Zh. Abdeli, H. Daigle, A. S. Yskak, A. S. Dauletov, K. S. Nurbekova. Increasing the efficiency of water shut-off in oil wells using sodium silicate	26
Solid State Physics, Mineral Processing	32
V. P. Nadutyi, V. S. Kurilov, O. G. Cholyshkina, V. F. Hankeyvych. Analytical studies on constrained particle settling velocity in a water suspension of fly ash from thermal power plants	32
N. A. Drizhd, Zh. T. Dauletzhanova, N. M. Zamaliyev, A. Zh. Dauletzhanyov. Influence of technological process parameters on qualitative characteristics of coal thermolysis products	39
L. M. Vasyliev, D. L. Vasyliev, O. Ye. Nazarov, M. G. Malich, V. O. Katan. The method for determining the parameters of the diagrams of a truncated-wedge destruction of cylindrical samples of rocks	47
R. M. Strelchuk, S. M. Trokhimchuk. Mathematical modeling of the surface roughness of the grinding wheel during straightening	53
R. M. Tatsiy, O. Yu. Pazen, S. Ya. Vovk, D. V. Kharyshyn. Direct method of studying heat exchange in multilayered bodies of basic geometric forms with imperfect heat contact	60
L. I. Solonenko, S. I. Repiakh, K. I. Uzlov, I. Mamuzich, T. V. Kimstach, O. P. Bilyi. Kinetics of quartz sand and its mixtures drying by microwave radiation	68
Geotechnical and Mining Mechanical Engineering, Machine Building	78
S. V. Pilipenko, V. U. Grigorenko, V. A. Kozechko, O. O. Bohdanov. A deformation mode in a cold rolling condition to provide the necessary texture of the Ti-3Al-2.5V alloy	78
B. V. Vinogradov, D. O. Fedin, V. I. Samusia, D. L. Kolosov. Dynamic loads in self-aligning gear transmissions of heavy loaded machines	84
I. Kahoul, S. Yahyaoui, Y. Mehidi, Y. Khadri. Shallow tunnel face stability analysis using finite elements	91
N. M. Fidrovska, O. V. Chernyshenko, I. A. Perevoznyk. Experimental study on an overhead crane passing a rail track joint	98
Electrical Complexes and Systems	103
V. P. Nerubatskyi, O. A. Plakhtii, D. V. Tugay, D. A. Hordiienko. Method for optimization of switching frequency in frequency converters	103
Power Supply Technologies	111
Ya. V. Batsala, I. V. Hlad, I. I. Yaremak, O. I. Kiianiuk. Mathematical model for forecasting the process of electric power generation by photoelectric stations	111
A. V. Rusanov, V. V. Solovey, M. M. Zipunnikov. Improvement of the membrane-free electrolysis process of hydrogen and oxygen production	117
Environmental Safety, Labour Protection	123
E. M. Hulida, I. V. Pasnak, O. E. Vasylieva, I. O. Movchan. Providing the environmental safety by increasing the efficiency of firefighting in unsheltered timber warehouses	123
O. Datsii, N. Datsii, O. Zborovska, L. Ivashova, M. Cherkashyna, K. Ingram. Financing of environmental programs for industrial waste management in times of crisis	130

Information Technologies, Systems Analysis and Administration	137
Zh. K. Mendakulov, S. Morosi, A. Martinelli, K. Zh. Isabaev. Investigation of the possibility of reducing errors in determining the coordinates of objects indoors by multi-frequency method	137
 Economy and Management	145
I. Zelisko, O. Sosnovska, L. Oliinyk, V. Stefkivskyy, I. Manaienko. Company business process optimization as an imperative of its economic security	145
N. Kalyuzhna, A. Khodzhaian, I. Baron. Identification of globalization threats to the economic sovereignty of countries with transition economies	154
O. Kuklin, R. Pustoviit, N. Azmuk, V. Gunko, N. Moisieieva. Institutional and socio-economic factors of the educational trend in Ukraine in the context of European integration	165
B. V. Derevianko, O. V. Rozhenko, T. V. Khalilova, V. M. Hrudnytskyi, O. S. Podskrebko. Strategic enterprise management based on the modeling of its economic security	171
V. V. Prokhorova, Kh. Ya. Zalutska, Yu. V. Us. Formation of motivational mechanism in strategic management of a diversified enterprise	177
V. V. Chumak, O. O. Khan, I. V. Bryhadyr, K. V. Kysylova. Protection of the subsoil of the continental shelf of Ukraine by international and national instrumentalities	186
T. Tsygankova, O. Yatsenko, O. Mozgovyy, T. Didukh, L. Patsola. Mobilization of innovative and resource factors for development of national outsourcing IT companies	191
Olena Tkachenko, Iryna Kulaga, Larysa Kozlovska, Oleh Shvidanenko, Tetiana Busarieva. The impact of knowledge components on the world competitiveness	198
G. Nugymanova, M. Nurgaliyeva, Zh. Zhanbirov, V. Naumov, I. Taran. Choosing a servicing company's strategy while interacting with freight owners at the road transport market	204

“Naukovyi Visnyk Natsionalnoho Hirnychoho Universytetu” is included in the Category A of the “List of Scientific Professional Editions of Ukraine” on geological and economic sciences (Order of Ministry of Education and Science of Ukraine No. 612 dated May, 7, 2019) and technical sciences (Order of Ministry of Education and Science of Ukraine No. 975 dated July 11, 2019)