CONTENTS

MINING SCIENCE

1.	Beltek M., Frolov O. Determination of the influence of the degree of	
	fracturing of the rock mass on the index of reduction of its strength	7
2.	Dychkovskyi R., Falshtynskyi V., Pererva A., Demydov M. Aspects of	
	the utilization for the technogenic terri-tory of coal enterprises	19
3.	Nalysko M., Makhinko A., Mamaienko S. Influence of initiation	
	conditions of methane-air mixture on the explosion parameters in the	
	degasation pipeline	33
4.	Romanenko A. Theoretical foundations of point cloud coordinate system	
	transformation	46
5.	Stasevich R., Ahaiev R., Stasevich O. Results of the testing of an	
	automated control system and the application of natural gas burners	58
6.	Cherniaiev O., Anisimov O., Saik P., Lozynskyi V., Adamchuk A.	
	Influence of mineral raw material processing on the qualitative and	
	quantitative indicators of crushed stone production	69
	EARTH AND PLANETARY SCIENCES	
7	Kolchev K. Mining waste as a base for the formation of technogenic	
	minerals	87
8.	Ruzina M., Tereshkova O., Zhyltsova I., Dementieva Y. Prospective	07
	assessment of the associated minerals complex in the Konksky and	
	Bilozersky iron ore districts from the Middle-Dniprean mega-block of the	
	Ukrainian Shield	101
		~
	APPLIED MECHANICS, CONSTRUCTION AND CIVIL ENGINEERIN	Ĵ
9.	Alekseyenko S., Derbaba V., Ruban V., Alekseyenko M. Educational	
	design and modelling of electro-hydraulic control system machine tool	
	motion	111
10.		
	of convergence of Fourier se-ries, poly-nomials, and method of finite	
	elements	124
11.	Derbaba V., Kozechko V., Patsera S., Voichyshen O., Kozechko V.	
	Performance indicators of cutting tools from extra hard materials	133
12.	Derbaba V., Patsera S., Bohdanov O., Ruban V., Muzychka D. Study	
	of cutting forces during turning of high-hard cast irons	143
13.	ý	
	and mechanical characteristics under high energy load	154
14.	Tymoshchuk V., Tymoshchuk Y. Mathematical modeling of the	
	geomechanical state of a manufactured rock mass under the conditions of	
	seismic loading	163
15.		
	Koshelenko I., Lutsenko I. Development of a spatial orientation model	100
	for the actuator of a mechatronic system	180

OIL AND GAS ENGINEERING AND TECHNOLOGIES

16.	Pavlychenko A., Ihnatov A., Askerov I. Issues of improving well construction processes and their environmental component	192
	ELECTRIC POWER ENGINEERING, ELECTROTECHNICS AND ELECTROMECHANICS	
17.	Rukhlov A., Lutsenko I., Rukhlova N., Koshelenko Ye., Zamkova O. Power consumption regulation of enterprises for reducing of the energy system peak loads	204
	MATERIALS SCIENCE AND INDUSTRIAL MACHINE-BUILDING	
18.	Zabolotnyi K., Panchenko O., Symonenko V. Analysis of the problems of using disc brakes in the complex of long drums of mine hoists with increased rope capacity	213
19.	Klymenko A., Sazanishvili Z. The influence of the microrelief of the metal surfaces of the substrate on the adhesive properties of meta-aramid	222
20.	Panchenko O. Integrated approach to analyzing the stress-strain state of the tubbing erector manipulator mechanism based on the SolidWorks program	230
21.	Pysmenkova T., Martínez Torán M. What engineers will Ukraine need tomorrow? Experience of Spain in the formation of the content of the training of industrial design engineers	241
22.		253
23.	Belmas I., Kolosov D., Bilous O., Tantsura H., Onyshchenko S. Stress- strain state of composite multi-layer stay rope considering breakages in reinforcing elements and nonlinear distribution of mechanical properties	
24.	Belmas I., Kolosov D., Onyshchenko S., Bilous O., Tantsura H., Chernysh P. Stress-strain state of a composite tractive element with a broken structure due to elastomer shell rheology	274
25.	Kolosov D., Dolgov O., Onyshchenko S., Bilous O., Tantsura H. Stress- strain state of a multi-layer stay rope with a cable breakage in cross-section	
	of connection to a structure	288