

## CONTENT

<b>Mine aerogasdynamics, Mining thermophysics</b>	
<i>Kiryaeva T.A., Oparin V.N., Yatsenko D.A.</i> Micro and nano structure analysis of coal substance versus coal ranks.....	5
<b>Mining machinery</b>	
<i>Zakharov V.N., Linnik Yu.N., Linnik V.Yu., Zich A.</i> Effect of nonuniform loading of cutting tools on operational stability of cutter-loaders and on selection of power of motors.....	24
<i>Sevagin S.V., Verzhansky A.P.</i> Quality control in manufacture of hydraulic cylinder rods for load-haul-dumpers .....	35
<b>Geotechnology</b>	
<i>Kurenkov D.S., Fedorov G.B., Dudchenko O.L.</i> Physics of application of acoustic vibrations in stimulation of dissolution of rock salt.....	45
<i>Lisenkov A.A., Djarkaganov U.A.</i> Rating of mineral reserves based on their availability for extraction with regard the dynamics of mining operations in open pit mines .....	54
<i>Shumilova L.V.</i> Geotechnology-based technical integration strategy for territorial industrial systems .....	68
<b>Geomechanics, Rock failure</b>	
<i>Korchak P.A.</i> Geomechanical prediction of growth of brittle fracture zones in the vicinity of underground excavations in over-stress rock mass .....	85
<i>Fedorova L.L., Fedorov M.P., Kulyandin G.A., Savvin D.V.</i> Ground-penetrating radar method to study thawing of frozen rock at the laboratory scale .....	99
<b>Geoecology</b>	
<i>Kossovich E.L., Epshtein S.A., Golubeva M.D., Krasilova V.A.</i> On using cyclic nanoindentation technique to assess coals propensity to fine dust formation.....	112
<i>Makarov D.V., Svetlov A.V., Goryachev A.A., etc.</i> Tailings dust emissions caused by the climate change: A case-study of a mine in Russia's far north.....	122
<i>Slastunov S.V., Mazanik E.V., Sadov A.P., etc.</i> Pilot-scale studies into methane recovery from mined-out voids of coal mines.....	134
<b>Geoinformatics</b>	
<i>Sis Mue</i> Optimization of road traffic for smooth and efficient operation of open pit mining in Shwe Taung coal project .....	146
<i>Yakonovskaya T.B., Zhigulskaia A.I.</i> Heuristic approach to Yurevskoe peat deposit appraisal using vertical profiling data .....	157
<b>Labor protection in mining</b>	
<i>Buyanov S.I., Rumyantseva V.A.</i> Model development for physical processes in sensing device for CAD system of sonic anemometer .....	169
<b>The deposited manuscripts</b>	
<i>Gerasimov A.I.</i> Block diagrams for the design of low-voltage electrical networks of processing plants.....	34
<i>Mazhidov A.U.U., Gerasimov A.I.</i> Ensuring safety of electrical equipment of wastewater treatment plants.....	121
<i>Gerasimov A.I., Bibikov M.V.</i> Repairs and directions of technical diagnostics of asynchronous electric motors in the shops of processing plants.....	145