

CONTENT

TECHNICAL SCIENCES AND TECHNOLOGIES

Zhunisov N.M., Kazbekova G.N. Using of the capabilities of geoinformation technologies for modeling the movement of groundwater	8
Kazbekova K.K., Ismailova R.T., Belginova S.A. Statistical analysis of the employee's distribution dynamics by wage levels in Kazakhstan	18
Kalachev A.A., Rogovsky S.V., Nikulina E.V., Lutai S.S., Asangaliev E.A., Valitova N.V. The influence of the composition of forest plantations on soil moisture indicators in the conditions of the Rudny Altai	28
Kamanova S., Yermekov Ye., Li W., Ospankulova G. Mathematical modeling and experimental studies of freezing drying of blackcurrant, blueberry, strawberry, raspberry and sea-buckthorn berries	40
Kamenskikh L.V., Melkozerova L.Ya. Educational and research activities of students in mastering BIM-technologies to implement architectural and construction solutions	49
Keribayeva T.B., Toilybai O., Rysbekova A.A., Seifula G.N., Koshekov A.K., Tulaev V.V. Increasing the security of unmanned communications in the conditions of digital transformation of aviation	58
Kombaev K.K., Elemanov D.S., Kassenova A.B., Tokhtar B.A., Toktarbayeva G.M., Sypainova G.S. Structural-phase transformation of the die model with electrolyte-plasma hardening and increased wear resistance	70
Kurmangaliyev D.B., Abdulina S.A., Krykpaeva A.A., Mamyachenkov S.V. A method for extracting valuable components from copper smelter slag	80
Mursalimova E., Shaimerdenova A., Madimarova G., Kadirkulov N., Augambayev K. The use of the NDVI index in monitoring the lands of phosphorite deposits	88
Murzagalieva A.M., Rakhymberdina M.Ye., Assylkhanova Zh.A., Okasova A.D., Oralbekova A.O. Space monitoring of solid municipal waste in Ust-Kamenogorsk	96
Myrzabekova D., Muzdybayev M., Muzdybayeva A., Rudenko S., Mlynczak M., Kadyrov Zh., Baskanbayeva D. Operability modeling of the hinge assembly with the turning mechanism of the load-haul-dump machine by the finite element method	105
Naizabayeva A.A., Shvets O., Maratov A., Ersainova Zh. Improving energy efficiency by optimizing autonomous power supply systems	119
Nauryzbayev B.A., Akhmetova Zh.Zh., Pak N.I., Karipzhanova A.Zh., Adikanova S. Intelligent system for self-study of mathematics	128
Oitseva T.A., Mizernaya M.A., Kuzmina O.N. Application of unmanned aerial vehicles (UAV) when performing magnetometric work (on the example of Akbastau square)	136
Pirmanov I.A., Kuanov E.E., Alibekkyzy K., Tulaev V.V., Azamatova Zh.K., Baidildina A. Applications of digital twins in the production process of repair of aircraft equipment	145
Raiymbek A.K., Ospanova I.R., Utepbergenova L.M., Togabaev Ye.T., Shakhmov Zh.A., Abdukalikova G.M., Smagulova E.M. Monitoring of the current state of the water supply and sanitation system of Astana city	154
Rakhymberdina M.Ye., Murzagalieva A.M., Assylkhanova Zh.A., Yessenbekova A.Ye. Monitoring of the state of green spaces in Ust-Kamenogorsk by satellite images	163