University	National University of Science and Technology MISIS
English proficiency	Sufficient for communication (oral and written) in the field of professional activity
Postgraduate program	Informatics and Computer Engineering
List of research projects	*Development and research of a complex of computational models for building a control mechanism for a family of robotic objects of the mining and transport complex* *Development of models and methods for the analysis of activities and visualization of the behavior of complex multidimensional objects* *Development of methods for constructing and functioning models of a digital platform for managing transport and technological processes in the extraction of mineral raw materials*
/ List of possible research topics	Designing and researching some algorithms for a group of autonomous transport agents control using dynamic 3D models (digital shadows) Developing the models for predicting of the dynamic processes parameters based on inductive learning mechanisms

Research supervisor:

Igor O. Temkin Doctor of Science/ Moscow State Mining University – NUST MISIS

The methods and models of intelligent control in complex socio-technical systems

Supervisor's research interests
Soft computing models in technological processes control problems
Modeling of transport and technological operations using geoinformation data
Development of predictive models for evaluation of the complex systems state based on machine learning methods

Supervisor's specific requirements:
- *Experience of independent development of computer programs*
- *Knowledge of the basics of applied mathematical statistics and data mining technologies*

Supervisor's main publications:
Over the past 5 years, 24 papers have been published
Top 5 publications
- *Temkin, I., Myaskov, A., Deryabin, S., Konov, I., Ivannikov, A. Design of a digital 3D model of transport–technological environment of open-pit mines based on the common use of telemetric and geospatial information. Sensors, 2021, 21(18), 6277, DOI: 10.3390/s21186277*
- *Sizemov, D.N., Temkin, I.O., Deryabin, S.A., Vladimirov, D.Ya. On some aspects of increasing the target productivity of unnamed mine dumo truck. Eurasian Mining, 2021, 36(2), cmp. 68–73, DOI: 10.17580/em.2021.02.15*
- *Myaskov, A., Temkin, I., Deryabin, S., Marinova, D. Factors and Objectives of Sustainable Development at the Implementation of Digital Technologies and Automated Systems in the Mining Industry. E3S Web of Conferences, 2020, 174, 04023, DOI: 10.1051/e3sconf/202017404023*
- *Temkin, I.O., Myaskov, A.V., Deryabin, S.A., Rzazade, U.A. Digital twins and modeling of the transporting-technological processes for on-line dispatch control in open pit mining. Eurasian Mining, 2020, 2020(2), cmp. 55–58, DOI: 10.17580/em.2020.02.13*

	• *Temkin I.O., Deryabin S.A., Konov I.S., Kim M.V. Possible Architecture and Some Neuro-Fuzzy Algorithms of an Intelligent Control System for Open Pit Mines Transport Facilities. Frontiers in Artificial Intelligence and Applications, 2019, vol. 320, pp. 412-420*
	Results of intellectual activity *Over the past two years, together with employees, 8 State Certificates have been received. registration of computer programs*