Portfolio of scientific supervisors of the participants of the postgraduate track of the International Olympiad of the Global Universities Association

University	Siberian Federal University
Level of English proficiency	C1
Educational program and field of the educational program for which the applicant will be accepted	2.2 Electronics, photonics, instrumentation and communications (direction of training) 2.2.8 Methods and instruments for monitoring and researching materials, products, natural substances and the natural environment (profile educational program) 2.3 Information technology and telecommunications (direction "Information training") 2.3.1 System analysis, management and information processing, statistics (profile educational program)
List of research projects of the potential supervisor (participation/leadership)	In 2017, as part of the team, he took part in the implementation of a RFBR grant. Agreement No. 17-01-20474\17 dated June 14, 2017 with the Russian Foundation for Basic Research on the scientific project: "Project for organizing and conducting the IV international seminar Applied methods of statistical analysis. Nonparametric methods in cybernetics and systems analysis." From 2017 to 2019, he became a member of the team for the implementation of the State assignment of the Ministry of Education and Science of Russia No. 2.1676.2017/4.6. "Development and research of self-configuring hyperheuristic solutions to complex problems of non-stationary multimodal optimization using bionic algorithms." Since 2021, member of the scientific team for project No. 10-2/R&D of RN-KrasnoyarskNIPIneft LLC "Development of a neural algorithm for predicting lithology and reservoirs based on geophysical survey data of wells." In 2023, he was a member of the research team conducting research on "Autonomous system for thermal stabilization of permafrost rocks" for Gazpromneft-Zapolyarye LLC. Development of computer models of heat transfer.
List of the topics offered for the prospective scientific research	• Creation of methods and algorithms for monitoring and control of technical systems and complexes • Development of approaches and methods for monitoring the processes of production, storage, distribution of oil and petroleum products • Intelligent identification and management methods • Synthesis of guaranteed-stable adaptive control algorithms

	• Development of intelligent algorithms for interpreting geophysical data • Mathematical and computer modeling of oil and gas production facilities • Creation of new classification algorithms based on the ensemble approach
 Research supervisor: Evgeny D. Agafonov, Doctor of Science	**Computer and data science**
	Supervisor's research interests: • Development of methods and algorithms for monitoring, control and management in technical systems • Development of algorithms for identification and control of complex objects, including distributed, nonlinear and non-stationary ones • Study of decision-making procedures under conditions of uncertainty and risks • Application of machine learning, adaptive and intelligent models • Deep Learning in Signal Processing and Signal Source Localization
	Research highlights: Work in a scientific team known for its achievements and outstanding scientific results. Availability of dissertation councils in the specified specialties in Krasnoyarsk.
	Supervisor's specific requirements: • knowledge of machine learning terms and methodology; • Python/MATLAB proficiency; • experience in writing articles and presentations at conferences.
	Supervisor's main publications: 1. Lyapin, A., Shahoud, G., & Agafonov, E. (2025). A Combined Method for Localizing Two Overlapping Acoustic Sources Based on Deep Learning. *Applied Sciences*, *15*(12), 6768. https://doi.org/10.3390/app15126768 2. Shahoud, Ghiath & Agafonov, Evgeny. (2024). A combined model for localizing acoustic sources using deep learning technology. *Vestnik Tomskogo gosudarstvennogo universiteta. Upravlenie, vychislitel'naya tekhnika i informatika*. 100-111. 10.17223/19988605/68/11. 3. Antropov, Nikita & Agafonov, Evgeny & Tynchenko, Vadim & Bukhtoyarov, Vladimir & Kukartsev, Vladislav. (2022). Fixed-budget approximation of the inverse kernel matrix for identification of nonlinear dynamic processes. *Journal of Applied Engineering Science*. 20. 150-159. 10.5937/jaes0-31772.

	Results of intellectual activity: Certificate of state registration of the computer program No 2024691652 “Programming module for classification problem solution”. Certificate of state registration of the computer program No 2022619066 “Autonomous module for predicting lithology and reservoirs according to well logging data based on convolutional neural networks”. Certificate of state registration of the computer program No 2020611040 “Software system for studying the efficiency of solving complex problems of non-stationary multimodal optimization”. Certificate of state registration of the computer program No 2022619066 “Software system for solving complex problems of non-stationary multimodal optimization based on evolutionary self-configured hyperheuristics”.