University	Peter the Great St.Petersburg Polytechnic University
Level of English proficiency	Advanced (C1)
Educational program and field of the educational program for which the applicant will be accepted	MATHEMATICS & ARTIFICIAL INTELLIGENCE 2.5.22. Product quality management. Standardization. Organization of production. PHYSICAL SCIENCES & TECHNOLOGY 2.2.4. Measuring instruments and methods (by measurement types) COMPUTER & DATA SCIENCE 1.2.2. Mathematical modeling, numerical methods and software tools 2.3.1. Systems analysis, control and information processing 2.3.4. Management in organizational systems
List of research projects of the potential supervisor (participation/leadership)	• The model of intelligent Autonomous Hybrid Renewable Energy System based on Bayesian Network • Adaptive intelligent manufacturing control systems • Aspects of smart manufacturing via agent-based approach
List of the topics offered for the prospective scientific research	• Artificial Intelligence and Intelligent Control Systems Industrial • Cyber Physical Systems and Networks Knowledge-Base Control • Distributed Intelligence and Intelligent Control Networks.
 Research supervisor: Vyacheslav P. Shkodyrev, Doctor of Science, Professor	1.02. Computer and information sciences 1.02. ET Computer science, information systems 1.02. EP Computer science, artificial intelligence 1.02. ER Computer science, cybernetics
	Supervisor's research interests Artificial Intelligence and Intelligent Control Systems
	Research highlights • Unique research-education networks laboratory of artificial intelligence and industrial cyber-physical systems. • Close cooperation with Russian and international industry
	Supervisor's specific requirements: • Mathematical background in mathematics, neuro-informatics, programming. • Ability of software engineering in Java
	Supervisor's main publications • *Arsenjev, D., Baskakov, D., & Shkodyrev, V. (2019).* • *Distributed ledger technology and cyber-physical systems* • *multi-agent systems. concepts and trends doi:10.1007/978-3- 030-24296-1_50 Retrieved from www.scopus.com* • *Kvasnov, A. V., Shkodyrev, V. P., & Arsenyev, D. G. (2019). Method of recognition the radar emitting sources based on the naive bayesian classifier. WSEAS Transactions on Systems and Control, 14, 112-120. Retrieved from www.scopus.com* • *Shkodyrev, V. P., & Yagafarov, K. I. (2018). The approach to emergency situation prediction in dynamical systems using neural networks. Paper presented at the ACM International Conference Proceeding Series, 2018-February 27-32. doi:10.1145/3185066.3185085 Retrieved from www.scopus.com*

	• *Yang, P., Xiao, X., Zhang, M., & Vyacheslav, S. (2018). High-precision rotor position estimation for high-speed SPMSM drive based on state observer and harmonic elimination. Paper presented at the 2018 International Power Electronics Conference, IPEC-Niigata - ECCE Asia 2018, 1966-1971. doi:10.23919/IPEC.2018.8508019 Retrieved from www.scopus.com* • *Zou, X., Xiao, X., He, Q., & Vyacheslav, S. (2019). Optimal tracking control of servo motor speed based on online supplementary Q-learning. [基于在线附加Q学习的伺服电 机速度最优跟踪控制方法]] Diangong Jishu Xuebao/Transactions of China Electrotechnical Society, 34(5), 917-923. doi:10.19595/j.cnki.1000-6753.tces.L80703*