

University	Peter the Great St.Petersburg Polytechnic University
Level of English proficiency	B1 (Pre-Intermediate)
Educational program and field of the educational program for which the applicant will be accepted	ENGINEERING & TECHNOLOGY 2.1.13. Radio engineering, including television systems and devices
List of research projects of the potential supervisor (participation/leadership)	1. Methods for digital design of micro- and nanoelectronic component base for wireless infocommunication systems (participant). 2. Development of microelectronic IP blocks of the monitoring system for high-temperature objects (participant) 3. Microelectronic thermoelectric generator (participant).
List of the topics offered for the prospective scientific research	<ul style="list-style-type: none"> MEMS sensors design Energy harvesting systems design
 <p>Research supervisor: Vera V. Loboda Doctor of Solid-State Physics (PhD), Associate Professor</p>	2.02. <i>Electrical eng, electronic eng</i>
	Supervisor's research interests MEMS sensors and energy harvesting systems design based on advanced materials and technologies for low power application like IoT, medical, monitoring systems
	Research highlights computer simulation of sensitive elements of microelectronics devices using special software; theoretical understanding of the results; knowledge of the main trends in the development of microelectronics
	Supervisor's specific requirements: Technical education, hard knowledge in mathematics, electrical engineering, solid state physics, simulation and optimization methods and modern software for microelectronic design.
	Supervisor's main publications 13 publications in the last 5 years
	1. Lipovskii A. A. et al. An Integrated Photoelasticity-Based Approach for the Reconstruction of Stress Profiles and Optical Anisotropy of GRIN Lenses // <i>Photonics</i> . – MDPI, 2023. – T. 10. – №. 11. – C. 1221. 2. Shirinov, G.M., Donaev, S.B., Umirzakov, B.Y., Loboda, V.V. Emission, optical and electrical properties of GaInP/GaP nanofilms // <i>St. Petersburg State Polytechnical University Journal. Physics and Mathematics</i> . 2023. Vol. 16. No. 2 3. Bekpulatov, I.R., Loboda, V.V., Normuradov, M.T., Donaev, B.D., Turapov, I K. Formation of Mn4Si films by magnetron sputtering and a wide range of their thermoelectric properties // <i>St. Petersburg State Polytechnical University Journal. Physics and Mathematics</i> . 2023. Vol. 16. No. 2. 4. Tretyakov, A.A., Kapralova, V.M., Loboda, V.V., Sapurina, I.Yu., Sudar, N.T. INFLUENCE OF TEMPERATURE ON THERMOELECTRIC EFFECT IN THE COMPOSITE MATERIAL BASED ON CARBON NANOTUBES AND POLYANILINE // <i>St. Petersburg State Polytechnical University</i>

	<p>Journal: Physics and Mathematics, 2022, 15(3) 5. Korotkov A. S., Loboda V. V. Thermoelectricity: From history to modernity through the CASS activity //IEEE Circuits and Systems Magazine. – 2021. – T. 21. – №. 3. – C. 57-65.</p>
	<p>Results of intellectual activity 2 state registration certificates of the computer program for the last 5 years</p>