


University	Saint Petersburg Electrotechnical University "LETI"
Level of English language proficiency	Fluent in spoken and written English
The direction of training for which the graduate student will be accepted	Physics and Astronomy Photonics
List of research projects of a potential supervisor (participation/guidance)	2019-2022, Grant of the Russian Science Foundation: «Development of high-precision digital optical angle transducers based on application of dynamic 2D scales for strapdown inertial navigation systems metrological provision», Supervisor 2014-2016, Grant of the Russian Science Foundation: "Development of multiphysical technologies for solid-state wave microsensors for navigation and control systems of highly dynamic objects", Supervisor 2020- 2024, Grant of the Ministry of Science and Higher Education of the Russian Federation: «Fundamental studies of linear and nonlinear dynamics of spin-wave and optical phenomena aimed to their application in microwave photonics devices», Participant
List of possible research topics	Development of precision laser goniometric systems for measuring the angular position of objects kinematically unconnected to the measuring system Development of waveguide micro-optical gyroscopes using phase characteristics Development of dynamic angle-measuring system of reference directions measurement
 <p>Research supervisor: Yuri V. Filatov Doctor of Science: St.-Petersburg State Electrotechnical University, 1992, St.-Petersburg</p>	Physical and technical optics and photonics
	Supervisor's research interests: <input type="checkbox"/> Ring laser gyro physics and application, <input type="checkbox"/> Fiber optic gyro physics and application, <input type="checkbox"/> Laser method and means of displacement measurement, <input type="checkbox"/> Laser metrology.
	Research highlights (при наличии): Experimental investigations will be carried out in the up-to-date optical laboratory, equipped by modern equipment (vibroisolated tables, modern optical and opto-mechanical components, laser sources etc.). Specific equipment includes several advanced wavefront sensors, optical modulators, liquid crystal elements, flexible mirrors, computers with specialized software, various optical elements for structured light production, metasurfaces etc.). We have the extended cooperation with several foreign teams, including in particular, the teams in Germany, in China, in South Africa etc. as well as with several leading Universities and laboratories in St.-Petersburg, Moscow, Siberia etc.
	Supervisor's specific requirements: Skills in optics, optical experiment and optical engineering. Deep knowledge of undergraduate courses, such as: <input type="checkbox"/> Wave optics <input type="checkbox"/> Basics of optical resonators and lasers <input type="checkbox"/> Interferometers
	Supervisor's main publications Total amount of papers indexed by Web of Science within the last 5 years is 56, including 26 papers in peer-reviewed journals. <input type="checkbox"/> Filatov, Y.V., Sevryugin, A.A., Shalymov, E.V., Venediktov, V.Y., Frequency properties of the confocal ring cavity, Optical

	<p>Engineering, V. 54, Issue 4, 1 April 2015. Q1 - 2009-2015, 2018 (SJR).</p> <p>□ Filatov, Y.V., Nikolaev, M.S., Pavlov, P.A., Venediktov, V.Y., Noncontact measurement of angular position and angular movement by means of laser goniometer, Optical Engineering, V. 54, Issue 5, 1 May 2015. Q1 - 2009-2015, 2018 (SJR).</p> <p>□ E. Bokhman, M. Burnashev, Y. Filatov, P. Pavlov, Implementation of the dynamic laser goniometer for noncontact measurement of angular movement, Optical Engineering 55(7), 074104 (July 2016). Q1 - 2009-2015, 2018 (SJR).</p> <p>□ V.Yu. Venediktov, Yu.V. Filatov, E.V. Shalymov, Passive ring resonator micro-optical gyroscopes, Quantum Electronics 46 (5) 437 – 446 (2016).</p> <p>□ Yu.V. Filatov, A.S. Kukaev, E.V. Shalymov, V.Yu. Venediktov, Investigation of a shift of whispering-gallery modes caused by deformations and tensions, Optical Engineering 56(10), 107104 (2017). Q1 - 2009-2015, 2018 (SJR).</p>
	<p>Results of intellectual activity (при наличии)</p> <p>Patents on several new schemes of optical gyros on the base of various types of passive ring resonators</p>