

**Researcher profile (portfolio) form for potential research supervisors of postgraduate track participants in the Global Universities Association International Olympiad for graduate and postgraduate applicants.**

University	National Research Tomsk Polytechnic University
English language proficiency	C1
Applicant's postgraduate program	Mathematical and software support for computers, complexes and computer networks
List of research projects of a potential research supervisor (participation/leadership)	<ul style="list-style-type: none"> <li>• New communication technologies in the far right ideological platform promotion among young people: a technique for automated detection of threats based on web mining</li> <li>• Development of new online solutions for Social Mining: technology for automating stochastic radicalization process research in social networks</li> </ul>
List of possible research topics	<ul style="list-style-type: none"> <li>• Development of natural language representation and processing methods for problem-oriented systems</li> <li>• The use of natural language in the automation of weakly structured processes</li> <li>• Knowledge extraction from semi structured heterogeneous sources</li> <li>• Automation of social influence and radicalization research processes in social media</li> <li>• Development and validation of AI-methods for automating research on online radicalization process in social media</li> <li>• Multilevel system of social media data analysis using web mining and artificial intelligence methods to identify psychological, emotional, behavioral mechanisms of individual and group online radicalization</li> <li>• Technology of knowledge extraction from a large volume of semi structured information and formation of corresponding knowledge bases on the example of scientific publications data</li> </ul>
 <p>Research supervisor: Aleksei O. Savelev, Candidate of Science (Tomsk State University of Control Systems and Radioelectronics)</p>	Natural and exact sciences 1.02. Computer and Information Sciences, Informatics - Artificial Intelligence
	Supervisor's research: Social media mining, problem-oriented systems, research automation systems
	Supervisor's specific requirements: <ul style="list-style-type: none"> <li>• Python programming basics</li> <li>• basics of natural language processing</li> <li>• basics of system analysis</li> </ul>
	Supervisor's main publications: <ul style="list-style-type: none"> <li>• An Online Scan of Extreme-Right Radicalization in Social Networks(The Case of the Russian Social Network VKontakte) / A. Yu. Karpova, S. A. Kuznetsov, A. O. Savelev, A. D. Vilnin // Journal of Siberian Federal University. Humanities and Social Sciences. – 2022. – Vol. 15, No. 12. – P. 1738-1750. – DOI 10.17516/1997-1370-0948. – EDN IGVUQA.</li> <li>• Method for Detecting Far-Right Extremist Communities on Social Media / A. Karpova, A. Savelev, A. Vilnin, S. Kuznetsov // Social Sciences. – 2022. – Vol. 11, No. 5. – DOI 10.3390/socsci11050200. – EDN EFNFLP.</li> <li>• The high-level overview of social media content search engine / A. O. Savelev, A. D. Vilnin, A. Y. Kaida [et al.] //</li> </ul>

	<p>IOP Conference Series: Materials Science and Engineering : 14, Tomsk, 14–17 октября 2019 года. – Tomsk, 2021. – P. 012097. – DOI 10.1088/1757-899X/1019/1/012097. – EDN VAFBQE.</p> <ul style="list-style-type: none"> <li>• Savelev, A. Assessment approach to the interconnections of social network radical online communities based on open data analysis with the use of TF-IDF / A. Savelev, A. Kaida, A. Karpova // VIII International Scientific and Practical Conference 'Current problems of social and labour relations' (ISPC-CPSLR 2020) : Proceedings of the VIII International Scientific and Practical Conference, Makhachkala, 17–18 декабря 2020 года. Vol. 527. – Amsterdam: Atlantis Press, 2021. – P. 594-599. – DOI 10.2991/assehr.k.210322.182. – EDN EPVKIO.</li> <li>• Karpova, A. Modeling the process of school shooters radicalization (Russian case) / A. Karpova, A. Savelev, N. Maksimova // Social Sciences. – 2021. – Vol. 10, No. 12. – DOI 10.3390/socsci10120477. – EDN CIIBXL.</li> <li>• Karpova A. Y., Savelev A. O., Vilnin A. D., Chaykovskiy D. V. (2020) Studying Online Radicalization of Youth through Social Media (Interdisciplinary Approach). Monitoring of Public Opinion: Economic and Social Changes. No. 3. P. 159—181. <a href="https://doi.org/10.14515/monitoring.2020.3.1585">https://doi.org/10.14515/monitoring.2020.3.1585</a>.</li> <li>• Ultra-Right Radicalization: a Method of Automated Threat Detection with the Use of Web Mining / A. Yu. Karpova, A. O. Savelev, A. D. Vilnin, D. V. [and oth.] // VESTNIK RFFI. Gumanitarnye i obshchestvennye nauki. – 2020. – № 5(102). – С. 30-43. – DOI 10.22204/2587-8956-2020-102-05-30-43. – EDN BEZTTC. (in Russian)</li> <li>• NEW TECHNOLOGIES TO IDENTIFY ALT-RIGHT EXTREMIST COMMUNITIES IN SOCIAL MEDIA / A. Yu. Karpova, A. O. Savelev, A. D. Vilnin, D. V., Chaykovskiy // Vestnik Tomskogo gosudarstvennogo universiteta. Filosofiya. Sotsiologiya. Politologiya – Tomsk State University Journal of Philosophy, Sociology and Political Science. 2019. 52. pp. 138–146. – DOI 10.17223/1998863X/52/14. – EDN KOGCBM. (in Russian)</li> </ul> <p>Total number of publications in the last 5 years:  WoS-2  Scopus-8  RCSI-4</p>
	<p>Results of intellectual activity:</p> <p>Calendar-correlation analysis of the activity of social network communities / A.O. Savelev [et al.] // Certificate of state registration of the computer program No. 2021662860 dated 08/06/2021.</p> <p>Sociological study "Network interactions of socially active fathers: norm and deviation (analysis of social networks of specialized NGOs)" / A.O. Savelev [et al.] // Certificate of registration of the database No. 2021621866 dated 09/03/2021.</p>

	Results of the sociological study "Schoolshooting in Russia: socio-demographic data, motives, characteristics of incidents" / A.O. Savelev [et al.] // Certificate of registration of the database No. 2022621125 dated 19.05.2022.
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