	ZAKOLDAEV, Danil A. Candidate of Technical Science
Research interests	✓ Blockchain technologies applications to ensure cyber security ✓ Features of ensuring information and functional security of cyber-physical systems ✓ Development and improvement of modern methods of detecting and resisting network attacks
Features of the PhD program	✓ Both basic and applied research ✓ The possibility of the results approbation with industrial partners ✓ Interaction with foreign scientists and research centers ✓ Attracting graduate students to participate in research projects and experimental design works
List of the supervisor's research projects (participation/supervision)	✓ Development of experimental samples of software components for cybersecurity of information technologies made ensured (participation) ✓ Development and experimental testing of practical solutions to ensure cybersecurity of banking organizations (participation) ✓ Development of a software and hardware complex for monitoring critical objects in conditions of data uncertainty and unreliability to prevent man-made threats (supervision) ✓ Research of quantum communication networks (participation)
List of potential thesis topics	✓ Methods and algorithms for building stable distributed registries ✓ Methods and models for a comprehensive assessment of the security of cyber-physical systems ✓ Intrusion detection methods for dynamic wireless networks
Publications in the last five years	113 (Scopus / Web of Science / RSCI)
Key publications	1. Shilov I., Zakoldaev D. Multidimensional Blockchain: Construction and Security Analysis//Principles and Practice of Blockchains, 2023, pp. 39-61 2. Vorobeva A., Khisaeva G., Zakoldaev D., Kotenko I. Detection of Business Email Compromise Attacks with Writing Style Analysis//Communications in Computer and Information Science, 2022, Vol. 1544, pp. 248-262 3. Shilov I., Zakoldaev D. Multidimensional blockchain security analysis//Lecture Notes in Networks and Systems, 2022, Vol. 235, pp. 911-924 4. Shukalov A.V., Zakoldaev D.A., Zharinov I.O., Zharinov O.O. Control, computing and communication in industrial

	cyberphysical systems with feedback//Journal of Physics: Conference Series, 2021, Vol. 2094, No. 4, pp. 042036 5. Chuprov S., Viksnin I., Kim I., Marinenkov E., Usova M., Lazarev E., Melnikov T., Zakoldaev D. Reputation and Trust Approach for Security and Safety Assurance in Intersection Management System//Energies, 2019, Vol. 12, No. 23, pp. 4527
Key IPs	✓ Computer program “Module for attack detection of compromising business correspondence in emails using natural language and machine learning processing” № 2021617783 dated of 19.05.2021 Vorobyova A.A., Zakoldayev D.A., Hisaeva G.F. ✓ Computer program “A software package for analyzing the texts of telephone conversations to identify leaks of insider information in investment consulting” № 2021617812 dated of 19.05.2021 Vorobyova A.A., Zakoldayev D.A., Gerasimov V.V., Li Y.V. ✓ Computer program “Network traffic classification program for detecting network distributed “denial-of-service attacks”” № 2020613345 dated of 13.03.2020 Zakoldayev D.A., Kuznetsov A.Y., Popov I.Y., Goroshkov V.A.
Supervisor’s specific requirements	✓ Probability theory and mathematical statistics ✓ Programming (C/Python/…) ✓ Machine learning
Code of the subject area of the PhD program	1.2.4 Cybersecurity 2.3.6 Methods and Systems of Information Protection, Information Security