



Name	Oleksandr Prokhorov
Position, Department/Faculty	Professor, Department of Computer Science and Information Technologies / Faculty of Aircraft Control Systems
Academic Degree, Academic Title	Doctor of Technical Sciences, Professor
Email:	o.prokhorov@khai.edu
Scopus Author ID:	57220108735
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ORCID iD:	0000-0003-4680-4082
Google Scholar:	https://scholar.google.com.ua/citations?user=cToUUIUAAAAJ
ResearchGate:	https://www.researchgate.net/profile/Oleksandr-Prokhorov-2

EDUCATION:

Basic education (university, major, year of graduation):

Kharkiv Aviation Institute, Computers, complexes, systems and networks, 1998

Postgraduate/Doctoral studies:

Candidate of Technical Sciences, National Aerospace University "Kharkiv Aviation Institute", 2003

Doctor of Technical Sciences, National Aerospace University "Kharkiv Aviation Institute", 2017

Additional training, certification programs:

Professional Development Program, ISMA University of Applied Sciences (Riga, Latvia), completed a 180-hour (6 ECTS) international training and internship program. Final project: "Digital twins and predictive analytics for high-tech enterprises in the context of digital transformation". Certificate No. 1-22/81-23 (28.02.2023).

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Feb 2004 – Jul 2004	Chief of Automation Control Systems Department, «Kharkiv House of Science and Technology Ltd., Kharkiv, Ukraine
Jul 2004 – Nov 2004	Chief Engineer, UNiS trans Ltd, Kiyv, Ukraine
Dec 2004 – Sep 2008	Chief Engineer, Intella Ltd., Intelligent technologies and automated systems, Kharkiv, Ukraine
Jun 2018 – present	Co-founder & CTO, Devitis Ltd., Kiyv, Ukraine

Teaching Experience:

May 2001 – Apr 2005	Assistant, Department of Information Control Systems, National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine
May 2005 – Sep 2017	Associate Professor, Department of Information Control Systems, National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine
Sep 2017 – present	Professor, Department of Computer Science and Information Technologies (the department was renamed in 2019), National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine
Sep 2020 – May 2023	Professor, Department of Automation and Computer-Integrated Technologies, O.M. Beketov National University of Urban Economy in Kharkiv
Sep 2024 – present	Professor, Department of Information Technologies, Dnipro Technological University STEP, Dnipro, Ukraine

Experience in International or National Projects:

2012 – 2014	Executor	State budget project "Development of the theoretical foundations of logistics management of the design, production, operation and disposal of aviation equipment", National Aerospace University "Kharkiv Aviation Institute" (No 0112U000104, MES of Ukraine)
2015 – 2017	Executor	State budget project "Development of theoretical foundations of distributed intelligent management of investment projects and programs of reform and development of the machine-building complex of Ukraine", National Aerospace University "Kharkiv Aviation Institute" (Г302-8/2015-Ф, MES of Ukraine)
2015 – 2017	Executor	State budget project "Development of theoretical bases by investment projects and programs of reformation and development of machine-building complex of Ukraine", National Aerospace University "Kharkiv Aviation Institute", (No 0115U003328, MES of Ukraine)
2018 – 2020	Executor	State budget project "Information technologies in the management of the development of organizational and technical systems", National Aerospace University "Kharkiv Aviation Institute" (No 0118U003824, MES of Ukraine)
2021 – 2023	Executor	State budget project "Information technologies in management of logistics and distributed systems", National Aerospace University "Kharkiv Aviation Institute" (No 0121U111437, MES of Ukraine)
2021 – 2023	Executor	International project "Creation of an information and analytical system for monitoring and managing electrochemical protection of pipelines of the oil and gas complex of the Republic of Kazakhstan" (No AP09261098, MES of the Republic of Kazakhstan)
2025 – 2027	Responsible executor	State budget project, closed topic (No 0125U001562, MES of Ukraine)

RESEARCH ACTIVITIES:

Main Research Areas:

Artificial Intelligence, Machine Learning, Simulation Modeling, Multi-agent Systems, Industrial Automation, Digital Twins, Internet of Things, Cloud Technologies, AR/VR

Number of Publications (Scopus, WoS, others):

Total publications: 160

Indexed in Scopus – 36

Indexed in WoS – 10

Patents (Utility Model) - 2

Copyright certificates (Computer Programs) – 7

Others – 115

Monographs, Textbooks:

Monographs – 3

Textbooks – 11

Participation in Scientific Conferences:

Participation in more than 15 international scientific conferences during 2020–2025:

2025 – International Scientific and Practical Conference “Modern Information Technologies and Artificial Intelligent Systems” (MIT@AIS-2025), Ukraine.

2025 – XXII International Scientific and Practical Conference “Project Management in the Development of Society”, Ukraine.

2025 – XXVII International Youth Forum “Radioelectronics and Youth in the 21st Century”, Ukraine.

2024 – XXI International Scientific and Practical Conference “Project Management in the Development of Society”, Ukraine.

2023 – VIII International Scientific and Technical Conference “Computer Modeling and Optimization of Complex Systems”, Ukraine.

2023 – XXXIII All-Ukrainian Conference “New Technologies in Mechanical Engineering”, Ukraine.

2022 – IEEE Smart Information Systems and Technologies (SIST), Kazakhstan.

2022 – International Conference on Smart Technologies in Urban Engineering (STUE), Ukraine.

2022 – IEEE 16th International Conference on Advanced Trends in Radioelectronics, Telecommunications and Computer Engineering (TCSET), Ukraine.

2022 – XX International Scientific and Practical Conference “Project Management in the Development of Society”, Ukraine.

2020 – 2nd IEEE International Conference on Advanced Trends in Information Theory (ATIT), Ukraine.

2020 – IEEE 15th International Scientific and Technical Conference on Computer Sciences and Information Technologies (CSIT), Ukraine.

2020 – IEEE 15th International Conference on Advanced Trends in Radioelectronics, Telecommunications and Computer Engineering (TCSET), Ukraine.

2020 – Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE), Ukraine.

2020 – 3rd International Workshop on Augmented Reality in Education (AREdu), Ukraine.

2020 – 8th Workshop on Cloud Technologies in Education (CTE), Ukraine.

TEACHING ACTIVITIES:

Courses Taught:

1. Creating Artificial Intelligence Systems and Machine Learning (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
2. Industrial Automation, Embedded Real-time Systems and the Internet of Things (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
3. Machine Learning in Python (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
4. Integrated Automated Control Systems (Master), National Aerospace University "Kharkiv Aviation Institute"
5. Current State and Trends in Computer Science (PhD), National Aerospace University "Kharkiv Aviation Institute"
6. Artificial Intelligence and Machine Learning in Scientific Research (PhD), National Aerospace University "Kharkiv Aviation Institute"
7. Creating Modern Distributed Systems based on the Internet of Things (PhD), National Aerospace University "Kharkiv Aviation Institute"
8. Intelligent Data Analysis (Bachelor), Dnipro Technological University STEP
9. Artificial Intelligence Methods and Systems (Bachelor), Dnipro Technological University STEP

Author Courses, Academic Programs:

1. Creating Artificial Intelligence Systems and Machine Learning (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
2. Industrial Automation, Embedded Real-time Systems and the Internet of Things (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
3. Machine Learning in Python (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
4. Integrated Automated Control Systems (Master), National Aerospace University "Kharkiv Aviation Institute"
5. Current State and Trends in Computer Science (PhD), National Aerospace University "Kharkiv Aviation Institute"
6. Artificial Intelligence and Machine Learning in Scientific Research (PhD), National Aerospace University "Kharkiv Aviation Institute"
7. Creating Modern Distributed Systems based on the Internet of Things (PhD), National Aerospace University "Kharkiv Aviation Institute"
8. Intelligent Data Analysis (Bachelor), Dnipro Technological University STEP
9. Artificial Intelligence Methods and Systems (Bachelor), Dnipro Technological University STEP
10. Theory of decision-making (Bachelor), National Aerospace University "Kharkiv Aviation Institute"
11. Distributed systems of information processing and control (Master), National Aerospace University "Kharkiv Aviation Institute"
12. Design of Software and Hardware Complexes based on PLC (Bachelor), O.M. Beketov National University of Urban Economy in Kharkiv
13. Computer-aided Design Systems (Bachelor), O.M. Beketov National University of Urban Economy in Kharkiv
14. Programming of Automation Systems of Complex Technological Objects (Master), O.M. Beketov National University of Urban Economy in Kharkiv

Methodological Materials, Textbooks:

1. Guidelines on Educational and Scientific Training of Doctor of Philosophy Degree Applicants in Specialty 122 "Computer Science" / Ministry of Education and Science of Ukraine, National Aerospace University "Kharkiv Aviation Institute"; compilers: O. Fedorovich, O. Prokhorov. – Kharkiv: KhAI, 2024. – 76 p.
2. Fedorovich O., Prokhorov O. Methodology for Master's Diploma Project Implementation: Textbook / National Aerospace University "Kharkiv Aviation Institute". – Kharkiv: KhAI, 2019. – 111 p.

GRANTS AND PROJECTS:

Participation in International and National Projects:

1. Participation in the DAAD programme "Digital Ukraine: Ensuring academic success in times of crisis" (2022–2023), lecturer in the Wildau-Kharkiv IT Bridge projects.
2. Participant of Staff Training Week, Riga Technical University (Latvia), 2021.

Grants, Scholarships, Academic Mobility Programs:

2010 – 2011	Scholarship holder of the Cabinet of Ministers of Ukraine for young scientists
2022	Certificate No. 57653041045, lecturer in the Wildau-Kharkiv IT Bridge of the DAAD programme "Digital Ukraine: Ensuring academic success in times of crisis (2022)", winter semester 2022
2023	Certificate No. 57653041142, participant of Wildau-Kharkiv IT Bridge II in the DAAD programme "Digital Ukraine: Ensuring academic success in times of crisis (2023)", summer semester 2023
2023	Professional Development Program, ISMA University of Applied Sciences (Riga, Latvia), 180-hour (6 ECTS) international training and internship. Final project: "Digital twins and predictive analytics for high-tech enterprises in the context of digital transformation". Certificate No. 1-22/81-23 (28.02.2023)

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:

None

Distinctions, Awards, Prizes:

2010 – 2011	Scholarship holder of the Cabinet of Ministers of Ukraine for Young Scientists
2012	Winner of the Science Park Competition "Radioelectronics and Informatics of the 21st Century" in the categories "Information and Control Systems", "Automated Systems of Information Collection, Processing and Transmission, Control and Management of Processes", and "Intelligent Information Technologies"
2013	1st place in "Best Project in the Field of Software and Hardware Complexes of Automation Systems and Robotics"; 3rd place in "Best Project in the Field of Mobile Applications" and "Best Project in the Field of Cloud Computing", Competition of Innovative

	Projects "IT-Kharkiv", within the program to support entrepreneurship in Kharkiv and development of the Regional ICT Cluster
2016	1st place in the "Ikari-KHAI" competition of professional skills, nomination Fundamental Disciplines Teacher
2018	Certificate of Appreciation from the Kharkiv Mayor
2023	2nd place in the "Ikari-KHAI" competition of professional skills, nomination Best Scientist
2024	Certificate of Appreciation from the Ministry of Education and Science of Ukraine

Membership in Professional Associations:

2022 – present	Member of the Specialized Academic Council D64.062.01, National Aerospace University "Kharkiv Aviation Institute"
2022 – present	Member of the Specialized Academic Council D64.050.20, National Technical University "Kharkiv Polytechnic Institute"
2020 – 2024	Member of the Sector of Professional Pre-Higher Education, Scientific and Methodological Council of the Ministry of Education and Science of Ukraine
2021 – present	Member of the PO Ukrainian Scientific and Educational IT Society

INTERNATIONAL ACTIVITIES:

Internships:

None

Cooperation with Foreign Universities:

1. Tripartite Agreement on PhD Training between South Kazakhstan University named after M. Auezov (Republic of Kazakhstan), Associate Professor A. Khusanov (Kazakhstan), and Professor O. Prokhorov (Ukraine). Purpose: Collaboration in the training of PhD student D.A. Turdybekova in the educational program 8D07180 – Technological Machines and Equipment, in accordance with the legislation and regulations of both countries. Objective: Development of international cooperation in education and scientific research. 2022.

Teaching/Lecturing Abroad:

1. Winter 2022 – Technische Hochschule Wildau, Germany – Lecturer in the DAAD programme "Digital Ukraine: Ensuring academic success in times of crisis"
2. Summer 2023 – Technische Hochschule Wildau, Germany – Lecturer in the DAAD programme "Digital Ukraine: Ensuring academic success in times of crisis"

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. S. Kiyko, E. Druzhinin, O. Prokhorov, V. Ivanov, B. Haidabrus, J. Grabis Logistics control of the resources flow in energy-saving projects: case study for metallurgical industry. Acta logistica - International Scientific Journal about Logistics, Vol. 7, 2020, Iss. 1, pp. 49-60.

<https://doi.org/10.22306/al.v7i1.159>

2. Y. Pronchakov, O. Prokhorov, O. Fedorovich Concept of High-Tech Enterprise Development Management in the Context of Digital Transformation. Computation. 2022. – Vol. 10, iss. 7. – P. 1–19. <https://doi.org/10.3390/computation10070118>
3. O. Prokhorov, V. Prokhorov, A. Khussanov, Z. Khussanov, B. Kaldybayeva, D. Turdybekova Complete Integrated Automation of the Electrochemical Corrosion Protection System of Pipelines Based on IoT and Big Data Analytics. Computation. – 2022. – Vol. 10, iss. 7. – P. 1–17. <https://doi.org/10.3390/computation10070123>
4. Fedorovich, O., Lukhanin, M., Prokhorov, O., Slomchynskiy, O., Hubka, O., Leshchenko, Y. Simulation of arms distribution strategies by combat zones to create military parity of forces. Radioelectronic and Computer Systems, 2023, (4), 209-220. <https://doi.org/10.32620/reks.2023.4.15>
5. Fedorovych, O., Prokhorov, O., Pronchakov, Y., Popov, A., Momot, M. Modeling of the relocation of high-tech enterprises for the release of innovative products. Radioelectronic and Computer Systems, 2023, (2), 180-192. <https://doi.org/10.32620/reks.2023.2.15>
6. Prokhorov, O., Prokhorov, V., Khussanov, A., Khussanov, Z., Kaldybayeva, B., Turdybekova, D. Optimization of the cathodic protection system for the main pipelines. Radioelectronic and Computer Systems, 2023, no. 3, pp. 187-203. <https://doi.org/10.32620/reks.2023.3.15>
7. O. Prokhorov, V. Prokhorov, A. Tevyashev, A. Khussanov, Z. Khussanov, D. Turdybekova A method for importance and risk assessment of main pipeline facilities. Eastern-European Journal of Enterprise Technologies – 2023. – Vol. 4. no. 3(124). – P. 33–44. <https://doi.org/10.15587/1729-4061.2023.285862>
8. O. Fedorovich, M. Lukhanin, O. Prokhorov, Y. Pronchakov, O. Leshchenko, V. Fedorovich Modeling of logistics of war reserve stockpiling for successful combat operations. Radioelectronic and computer systems. – 2023. – Vol. 1, iss. 15. – P. 183–196. <https://doi.org/10.32620/reks.2023.1.15>
9. Fedorovich, O., Krytskyi, D., Lukhanin, M., Prokhorov, O., & Leshchenko, Y. (2025). Modeling of strike drone missions for conducting wave attacks in conditions of enemy anti-drone actions. Radioelectronic and Computer Systems, 2025(1), 29-43. <https://doi.org/10.32620/reks.2025.1.02>
10. Prokhorov, O., Shymko, D., Kuzminska, O., Chukhray, A., Shatalov, O., & Kholodniak, O. (2025). A system for generating chatbots to support learning in the field of exact sciences using generative artificial intelligence models. Radioelectronic and Computer Systems, 2025(2), 22–45. <https://doi.org/10.32620/reks.2025.2.02>

Books, Chapters in Collective Monographs:

1. Methods and models of military logistics research for effective combat operations in the conflict zone / Fedorovich O., Pronchakov Y., Prokhorov O., Kosenko V., Lutai L. // Information systems in project and program management: Collective monograph edited by I. Linde. European University Press. Riga: ISMA, 2023. pp. 67-149. <http://dx.doi.org/10.30837/MMP.2022.067>
2. Fedorovich O.E., Rubin E.E., Prokhorov A.V. Models and Methods of Information Technology for the Study of Management Processes in Oil and Petroleum Logistics. Monograph. Kharkiv: KhAI, 2016. – 268 pp.
3. Fedorovich O.E., Nechiporuk N.V., Druzhinin E.A., Prokhorov A.V. Information Technologies for Organizational Management of Complex Sociotechnical Systems. Monograph. Kharkiv: KhAI, 2004. – 295 pp.



Links to Citation Database Profiles:

<https://www.scopus.com/authid/detail.uri?authorId=57220108735>

<https://www.webofscience.com/wos/author/record/N-7938-2018>

<https://scholar.google.com/citations?user=cToUUIUAAAAJ>

ADDITIONAL INFORMATION:

Language Proficiency:

Language	Proficiency Level	Certification / Notes
Ukrainian	Native	
English	Upper-Intermediate (B2)	Certificate KJ-A 23/05/202, issued by Wyższa Szkoła Lingwistyczna w Częstochowie, 20.05.2023

IT Skills:

Category	Skills / Tools	Level / Experience	Notes / Context
Programming	C/C++, C#, Java, Python, JS	Advanced	Courses, research, and large-scale industrial projects
Databases	MS SQL, MySQL, PostgreSQL, MongoDB	Advanced	Research and applied projects
Simulation / Modeling	MATLAB Simulink, AnyLogic	Advanced	Courses, research, and industrial projects
AI & ML	TensorFlow, Keras, PyTorch, scikit-learn, YOLO, OpenCV, LLM OpenAI	Advanced	AI/ML, object detection, predictive analytics
Industrial Automation & IoT	PLC programming, IEC 61131, SCADA systems, Raspberry Pi, BeagleBone Black, Arduino, IoT protocols, LoRaWAN	Advanced	Robotics, IoT, industrial automation courses and projects
Distributed & Embedded Systems	Real-time systems, Embedded systems, IoT platforms, Node.js	Advanced	Courses, research, and industrial applications
Cloud Platforms & IoT Services	MS Azure, MS Azure IoT Hub, Google Cloud IoT, AI cloud platforms	Intermediate	IoT and AI solutions, research
Data Analysis & Visualization	Pandas, NumPy, Matplotlib, Seaborn, Tableau	Advanced	Research, course projects, scientific publications
Software & Hardware Design	CAD software, PLC-based systems, integrated automated control systems	Advanced	Courses, research, and applied industrial projects
Tools & Collaboration	Node-RED, Git, GitHub, Docker	Advanced	AI/IoT projects, collaborative development

Social and Community Activities:

1. Organizer and regular host of webinars aimed at career guidance, promotion of science, and modern information technologies among youth.
2. Responsible for administration of department pages and channels on social media (Facebook,

Instagram, Telegram, YouTube, TikTok).

3. Project lead of the alumni interview media project PROstori
<https://www.youtube.com/playlist?list=PLNM09A3PQZKFfmrKhy5jrhxfFbtPNxuyh>.
4. Video editing and content creation for webinars, events, diploma defenses, and other for social media platforms.
5. Social media promotion.
6. Chair of the organizing committee for the annual High School IT Championship – KhAI IT Cup, 2017–2021.
7. Participation in faculty and university career guidance activities, including offsite events, interactive exhibitions, and open days.