Name	Oleksandr Vdovitchenko
Position, Department/Faculty	Associate Professor, Software Engineering Department, Software Engineering and Business Faculty
Academic Degree	PhD in Technical Science
Email:	o.vdovitchenko@khai.edu
Scopus Author ID:	59669365200
Web of Science ResearcherID:	-
ORCID iD:	0000-0002-3144-1234
Google Scholar:	https://scholar.google.com/citations?user=qFyxlz4AAAAJ
ResearchGate:	https://www.researchgate.net/profile/Oleksandr-Vdovitchenko

EDUCATION:

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

Master's Degree in Applied Mathematics National Aerospace University "Kharkiv Aviation Institute" [01/09/2012 – 30/06/2013]

Bachelor's Degree in Applied Mathematics National Aerospace University "Kharkiv Aviation Institute" [01/09/2010 – 30/06/2012]

Junior Specialist in Programming for Electronic Computing Machines and Automated Systems Kharkiv Radio-Technical College [01/09/2006 – 30/06/2010]

Postgraduate/Doctoral studies:

PhD in Information Technologies
Ministry of Education and Science of Ukraine [28/02/2017]

Additional training, certification programs:

− Certificate of Completion in "Tech Summer for Educators: Big Data Edition", SoftServe Academy, 30 hours (2 ECTS), [August 2025]
− Certificate of Completion in "SSWU: Teachers Smart Up: Summer Edition 2025", Sigma Software University, 30 hours (1 ECTS), [21–25.07.2025]
− Certificate of Advanced Training "Big Course in AI in Education", CA "Progressive" & Ministry of Digital Transformation of Ukraine, 45 hours (1.5 ECTS), [26.05.2025 – 09.06.2025]
− Certificate of Completion in "SSWU: Teachers Smart Up: Winter Edition 2025", Sigma Software University, 30 hours (1 ECTS), [27–31.01.2025]
− Certificate of Completion in "Tech Summer for Educators: AI Edition", SoftServe Academy, 30 hours (1 ECTS), [23.07.2024 – 13.08.2024]

NATIONAL AEROSPACE UNIVERSITY «KHARKIV AVIATION INSTITUTE»

- Certificate of Completion in "SSWU: Teachers' Smart Up: Winter Edition 3.0 2024", Sigma Software University, 30 hours (1 ECTS), [22–26.01.2024]
- Certificate of Completion in "Getting Started with .NET Core Clean Architecture", Udemy, 4 hours, [March 2023]
- Certificate of Completion in "SSWU TCHR002: Teachers Smart Up: Winter Productivity", Sigma Software University, 30 hours (1 ECTS), [23–27.01.2023]

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Ph.D., Associate Professor, National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine [06/2017 – Current] Scientific research activity, teaching, curriculum development in Software Engineering.

Chief Technology Officer, Legal Tech (LegalYES), Kyiv, Ukraine [05/2024 – 05/2025] Responsible for the technical strategy and architecture of the platform that automates legal workflows. Leading the development of a scalable .NET-based system, integrating with electronic court APIs, and optimizing data processing. Management of the technical team and strategic planning.

Senior Education Mentor .NET, NIX, Kharkiv, Ukraine [05/2021 – 11/2023] Mentoring and training developers in .NET stack (ASP.NET Core, MVC, Web API). Code review, teaching OOP principles, Solution Architecture, and Database design.

Machine Learning Specialist, Medical Techniques Canada, Richmond Hill, Canada [10/2019 – 07/2020] Development of Machine Learning algorithms using Python (Keras, PyTorch). Implementation of Supervised Learning models and Object-Oriented Programming.

Assistant, National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine [11/2014 – 05/2017] Teaching assistance and research activities with a focus on Databases.

Middle .NET Developer, Telesens, Kharkiv, Ukraine [10/2013 – 11/2014] Full-stack development using .NET, C#, ASP.NET MVC, and Entity Framework. Front-end development with JavaScript, HTML, and CSS.

Junior ASP.NET Developer, FulcrumWeb, Kharkiv, Ukraine [06/2012 – 08/2013] Web application development using ASP.NET, MVC, and Entity Framework. Database management.

Experience in International or National Projects:
Wildau-Kharkiv IT Bridge, DAAD Programme "Digital Ukraine: Ensuring Academic Success in Times of Crisis" [2022-2024]

RESEARCH ACTIVITIES:

Main Research Areas:
Artificial Intelligence, Internet of Things, Green IT

Number of Publications (Scopus, WoS, others):

multiple conference proceedings and applied research outputs.

Monographs, Textbooks:
Co-author of 4 monographs, 3 of them indexed in Scopus and Web of Science databases.

Participation in Scientific Conferences:
Regular participant (over 10) and speaker at international and national scientific conferences on artificial intelligence, Green IT

TEACHING ACTIVITIES:

Courses Taught:
Programming in Python, Fundamentals of Internet of Things, Software for Internet of Things, Web Development: PHP, 3D Graphics and Development in Unity, Intellectual Property

Author Courses, Academic Programs:
Author of the courses: Programming in Python, Fundamentals of Internet of Things, Software for Internet of Things, Web Development: PHP, 3D Graphics and Development in Unity, Intellectual Property
Developer of academic content for the courses: Programming in Python, Fundamentals of Internet of Things, Software for Internet of Things, Web Development: PHP, 3D Graphics and Development in Unity, Intellectual Property

Methodological Materials, Textbooks:
Co-author of textbooks in the field of software engineering and development
Developed electronic resources and video materials for hybrid and online teaching (LMS: Google ClassRoom, Moodle)

GRANTS AND PROJECTS:

Participation in International and National Projects:
- Software development technology for innovative special and dual-purpose systems (ДР No. 0124U001426) [2024 – Current]
- "Software development technologies for Internet of Things ecosystem platforms and cloud services" (ДР No. 0121U109086) [2021 – 2023]
- "Methodology of sustainable development and information technologies of green computing and communications" (ДР No. 0115U000996) [2018 – 2021]
- "Creation of methodological foundations for the integration of production decision-making support systems into a single knowledge space at aerospace enterprises" (ДР No. 0115U000997) [2015 – 2017].
- "Theoretical foundations, methods and information technologies for the development of software and hardware complexes of critical application in conditions of resource constraints" (ДР No. 0112U001058) [2012 – 2015]

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:
Second place in the competition of professional skills "Icarus Khai" in the nomination "Young Scientific and Pedagogical Worker" [2017].

Membership in Professional Associations:
Member of the public organization "UNIT" (Ukrainian Scientific IT Society) [2019].

INTERNATIONAL ACTIVITIES:

Cooperation with Foreign Universities:
With Technical University of Applied Sciences Wildau in the project "Wildau-Kharkiv IT Bridge, DAAD Programme "Digital Ukraine: Ensuring Academic Success in Times of Crisis" [2021-2024]

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

- Vdovitchenko O, Rudenok D. Method of Adaptive Content Generation in Mobile Applications Based on Personalized Deep Learning Models. Aerospace Technic and Technology. 2025; (6) :09 URL: https://doi.org/10.32620/aktt.2025.6.09 DOI: 10.32620/aktt.2025.6.09
- Vdovitchenko O, Chuglazov A. Model of Integrating a Virtual Reality System into the Architecture of E-commerce Platforms to Increase Sales Conversion. Aerospace Technic and Technology. 2025; (6) :10 URL: https://doi.org/10.32620/aktt.2025.6.10 DOI: 10.32620/aktt.2025.6.10
- Sytnik O, Vdovitchenko O. Mathematical Structures and Tools for Anthropocentric Dispatching in Higher Education Institutions. Problems of Informatization: Proceedings of the 13th International Scientific and Technical Conference. 2025; 1 :37
- Sytnik O, Vdovitchenko O. Mathematical Structures and Tools for Anthropocentric Dispatching in Higher Education Institutions. Open Information and Computer Integrated Technologies. 2025; 105 :212-226 DOI: 10.32620/oikit.2025.105.17
- Kirilenko O, Kuznetsova Y, Vdovitchenko O. Problems of Training University Teachers for the Implementation of Distance Learning. Bulletin of Bohdan Khmelnytsky National University of Cherkasy. Series: Pedagogical Sciences. 2019; 3 :150-156 URL: https://doi.org/10.31651/2524-2660-2019-3-150-156 DOI: 10.31651/2524-2660-2019-3-150-156

Books, Chapters in Collective Monographs:
- Kuznetsova Y., Kolomytsev A., Somochkin M., Vdovitchenko O. Serverless and Containerization Models and Methods in Challenger Banks Software. In book: Integrated Computer Technologies in Mechanical Engineering - 2020, Eds. Nechyporuk M. and etc. // Lecture Notes in Networks and Systems. – Switzerland: Springer, Vol. 188. P. 177–187 (2021) DOI: 10.1007/978-3-030-66717-7_15
- Turkin I., Vdovitchenko O. Model and Methods of Human-Centered Personal Computers Adaptive Power Control. In book: Green IT Engineering: Social, Business and Industrial Applications, Eds. Kharchenko V. and etc. // Studies in Systems, Decision and Control. – Switzerland: Springer, Vol. 171. P. 323–348 (2019) DOI: 10.1007/978-3-030-00253-4_14
- Turkin I., Vdovitchenko O. Energy-Efficient Scheduling for Portable Computers as Bi-Criteria Optimization Problem. In book: Green IT Engineering: Concepts, Models, Complex Systems

Architectures // Studies in Systems, Decision and Control. – Switzerland: Springer International Publishing, Vol. 74. P. 87–100 (2017) DOI: 10.1007/978-3-319-55595-9_5

– Kharchenko V., Ponochovnyi Yu., Bazhanov A., Vdovitchenko O. and etc. Green IT Engineering. In 2 volumes. Vol. 2: Systems, Industry, Society. – Kharkiv: National Aerospace University "Kharkiv Aviation Institute". (2014)

Links to Citation Database Profiles:
SCOPUS: https://www.scopus.com/authid/detail.uri?authorId= 59669365200
Google Scholar https://scholar.google.com.ua/citations?hl=uk&user=qFyxIz4AAAAJ
ORCiD https://orcid.org/0000-0002-3144-1234
ResearchGate https://www.researchgate.net/profile/Oleksandr-Vdovitchenko

ADDITIONAL INFORMATION:

Language Proficiency:
Ukrainian, English, Bulgarian

IT Skills:
C#, .NET Core, ASP.NET (MVC, Web API), Entity Framework, Python (PyTorch, Keras, Pandas), PHP (Symfony), JavaScript (Vue.js), SQL, Git, OOP, Solution Architecture, Agile Methodologies.