Name	Vyacheslav Duzhyi
Position, Department/Faculty	Associate Professor, Deputy Head of the Department for Educational and Methodological Work; Department of Computer Systems, Networks and Cybersecurity; Faculty of Radio-Electronics, Computer Systems and Infocommunications
Academic Degree, Academic Title	Candidate of Engineering Sciences (PhD) Docent
Email:	v.duzhy@csn.khai.edu
Scopus Author ID:	50860981600
Web of Science ResearcherID:	ABC-3153-2022
ORCID iD:	0000-0002-3383-1893
Google Scholar:	https://scholar.google.com/citations?hl=en&view_op=list_works&gmla=AJsN-F4Adp2hwyoC1SmFvnk6OuyDxt0xZb2_mJ-1U0CNSGDRMfN_VUytYK-_Fex9Og6jUE8IsZl2_f-npwcI6e8H3JfuW1sQXw&user=GDl1wugAAAAJ
ResearchGate:	https://www.researchgate.net/profile/Vyacheslav-Duzhyi?ev=hdr_xprf

EDUCATION:

Basic education (university, major, year of graduation):
National Aerospace University "Kharkiv Aviation Institute", Master of Science Degree in Radioelectronic Devices, 1985

Postgraduate/Doctoral studies:
National Aerospace University "Kharkiv Aviation Institute", Information Technologies, Candidate of Engineering Sciences

Additional training, certification programs:
Certificate Of Attainment In Modern Languages. Universal test. English. Level 2. ECL Authorised Exam Centre. October 2022.

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

[April 1985 – September 1986] – Department of Computer Systems, Networks and Cybersecurity at National Aerospace University "Kharkiv Aviation Institute", Engineer
[September 1986 – October 1989] – Department of Computer Systems, Networks and Cybersecurity

at National Aerospace University "Kharkiv Aviation Institute", Assistant
[October 1989 – March 2016] – Department of Computer Systems, Networks and Cybersecurity at National Aerospace University "Kharkiv Aviation Institute", Senior Lecturer
[April 2016 – till now] – Department of Computer Systems, Networks and Cybersecurity at National Aerospace University "Kharkiv Aviation Institute", Associate Professor

Teaching Experience:
40 years
National Aerospace University "Kharkiv Aviation Institute", 1986-1989, Assistant
National Aerospace University "Kharkiv Aviation Institute", 1989-2016, Senior Lecturer
National Aerospace University "Kharkiv Aviation Institute", 2016 – till now, Associate Professor

Experience in International or National Projects:
[2006-2014] Involved in 3 national projects
[2006-2013] Involved in 2 international projects

RESEARCH ACTIVITIES:

Main Research Areas:
Cybersecurity

Number of Publications (Scopus, WoS, others):
More than 30 scientific publishes (SCOPUS – 11, WoS – 1)
[2015-2018] Patents for a Utility Model – 8

Monographs, Textbooks:
1. V. I. Duzhyi. Information Technology To Ensure Functional Safety Of Information And Control Systems With Architecture And Technology Diversity. / ed. by V. Kharchenko. – Ministry of Education and Science of Ukraine, National Aerospace University "KhAI", 2015. – 186 p.
2. V. Sklyar, A. Volkoviy, O. Gordieiev, V. Duzhyi. Requirements to products and processes for software of safety important NPP I&C systems. Cyber Security and Safety of Nuclear Power Plant Instrumentation and Control Systems : [monograph]. – USA : IGI Global, 2020. – Chap. 4. – P. 97–131. DOI: 10.4018/978-1-7998-3277-5.ch004
3. I. Babeshko, O. Illiashenko, A. Siora, V. Sklyar, A. Panarin, E. Brezhniev, V. Duzhyi. Diversity for NPP I&C Systems Safety and Cyber Security. Cyber Security and Safety of Nuclear Power Plant Instrumentation and Control Systems : [monograph]. – USA : IGI Global, 2020. – Chap. 10. – P. 239–288. DOI: 10.4018/978-1-7998-3277-5.ch010.
4. V. Sklyar, A. Volkoviy, O. Gordieiev, V. Duzhyi. Requirements to Products and Processes for Software of Safety Important NPP I&C Systems. Research Anthology on Agile Software, Software Development, and Testing. [monograph]. – USA : IGI Global, 2021. – Vol. 1. – P. 212–246.
5. Dotsenko S. I., Moiseenko V. I., Fesenko H.V. V. I. Duzhyi. Chapter 9. Natural and artificial intelligence of cybernetic systems. Intelligent cybernetic systems: evolution of principles, theories and security technologies: [col. monograph]. / ed. by S. I. Dotsenko, V. S. Kharchenko. Ministry of Education and Science of Ukraine, National Aerospace University "KhAI". Kyiv : Yuston Publishing House LLC, 2023. P. 169–189. ISBN 978-617-7854-91-2.

Participation in Scientific Conferences:

Took part in the work of 10 scientific and technical conferences.
Scientific supervisor of applicants who participated in ICTM and PerSiK conferences.
Regularly attend the seminars Critical Computer Technologies and Systems (CriCTecS) and Dependable Information Technologies.

TEACHING ACTIVITIES:

Courses Taught:
Fundamentals of Computer Functioning
Architecture of Computers and Quantum Processors
Operating Systems

Author Courses, Academic Programs:
Fundamentals of Computer Functioning
Architecture of Computers and Quantum Processors
Operating Systems
Component-Oriented Programming
System Programming

Methodological Materials, Textbooks:
V. I. Duzhyi, V. V. Duzha. Computer Architecture. Introduction. [Electronic Resource]. Kharkiv: KhAI, 2020. – 93 p.
Scalable multi-version technologies for safety-critical applications. / A. Volkoviy et. al. / ed. by V. Kharchenko. Kharkiv: NAU KhAI, 2013. 189 p.
URL: https://library.khai.edu/library/fulltexts/doc/Duzhij_Arhitektura.pdf
V. Duzhyi. Fundamentals of Computer Functioning. Lecture Notes.
URL: https://mentor.khai.edu/course/view.php?id=3725
V. Duzhyi. Architecture of Computers and Quantum Processors. Lecture Notes.
URL: https://mentor.khai.edu/course/view.php?id=3739
V. Duzhyi. Lecture Notes.
URL: https://mentor.khai.edu/course/view.php?id=1620

GRANTS AND PROJECTS:

Participation in International and National Projects:
TEMPUS «MASTAC» Msc and PhD Studies in Aerospace Critical Computing JEP 26008-2005 (2006-2009)
TEMPUS «SAFEGUARD» National Safeware Engineering Network of Centers of Innovative Academia-Industry Handshaking 158886-TEMPUS-2009-UK-TEMPUS-JPCR (2010-2013)

Participation in International and National Projects:
Theoretical foundations, methods and tools of analysis, development and verification of dependable information and control systems for aerospace objects and complexes of critical application (0106U001071), 2006-2008
Theoretical foundations, methods and technologies ensuring the dependability of evolvable computerized infrastructures for aerospace and critical domains (0108U010994), 2009-2011
Theoretical foundations, methods and information technologies of critical application software and

hardware complexes development in terms of resource constraints (0112U001058), 2012-2014

Grants, Scholarships, Academic Mobility Programs:
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PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Honorary Titles:
[2023] Graduation Certificate from the Kharkiv Regional Council

Distinctions, Awards, Prizes:
—

Membership in Professional Associations:
Member of the public organization "Ukrainian Scientific and Educational IT Society" ("USE IT").

INTERNATIONAL ACTIVITIES:

Internships:
—

Cooperation with Foreign Universities:
—

Teaching/Lecturing Abroad:
—

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. I. D. Duzhyi, A. D. Klochko, V. I. Duzhyi, Ye. V. Smiianov, I. A. Danylenko, A. V. Yurchenko. Ураження голосових зв'язок при коронавірусній інфекції. Інфекційні хвороби. 2025. DOI: 10.11603/1681-2727.2025.2.15297
2. O. Vdovichenko, A. Perepelitsyn, V. Duzhyi, O. Zheltukhin. Метод дистанційної діагностики, перепрограмування і реконфігурації вузлів вбудованої системи. Aerospace Technic and Technology. – 2022. – № 6. – P. 66–75. DOI: 10.32620/aktt.2022.6.08
3. A. Perepelitsyn, V. Duzhyi, O. Vdovichenko, O. Zheltukhin. Technologies of Embedded Systems Prototyping using Reconfigurable Nodes: Technical Solutions. 12th IEEE International Conference on Dependable Systems, Services and Technologies. DESSERT'2022 : proceedings, 9–11 Dec. 2022, Athens, Greece. – P. 1–6. DOI: 10.1109/DESSERT58054.2022.10018581
4. N. Sidelnyk, V. Margasova, V. Duzhyi. Marketing and Management in Insurance: Impact of Innovations Measures. Marketing and Management of Innovations. – 2021. – № 2. – P. 231–242. DOI: 10.21272/mmi.2021.2-19 (Web of Science)
5. I. O. Shpetnyi, K. V. Tyschenko, V. Ya. Pak, Yu. O. Shkurdoda, I. Yu. Protsenko, V. Duzhyi. Structural-Phase State and Magnetotransport Properties of Thin Film Alloys Based on Permalloy and Copper. Journal of Nano- and Electronic Phisics. – 2021. – Vol. 13, №1. – P. 1–6. DOI: 10.21272/jnep.13(1).01020

6. A. Perepelitsyn; O. Illiashenko; V. Duzhyi; V. Kharchenko. Application of the FPGA technology for the development of multi-version safety-critical NPP instrumentation and control systems. Nuclear and Radiation Safety. – 2020. – № 2 (86). – P. 52–61. DOI: 10.32918/nrs.2020.2(86).07

7. V. Duzhyi, V. Kharchenko, A. Panarin, D. Rusin. Diversity metric evaluation considering extended NUREG-7007 diversity classification. 9th IEEE International Conference on Dependable Systems, Services and Technologies. DESSERT'2018 : proceedings, 24–27 May 2018, Kyiv, Ukraine. – P. 21–25. DOI: 10.1109/DESSERT.2018.8409092

8. V. Kharchenko, E. Brezhnev, V. Sklyar, V. Duzhyi. FPGA platform-based NPP I&C systems: Case study of diversity assessment and selection. 9th International Topical Meeting on Nuclear Plant Instrumentation, Control, and Human-Machine Interface Technologies. NPIC and HMIT'2015 : proceedings, 22–26 Feb. 2015, Charlotte, NC, USA. – [S. l.], 2015. – Vol. 1. – P. 93–102. DOI: 10.1115/ICONE22-31171

9. V. Kharchenko, O. Siora, V. Duzhyi, D. Rusin. Standard Analysis and Tool-Based Assessment Technique of NPP I&C Systems Diversity. 22th International Conference on Nuclear Engineering. ICONE'2014 : proceedings, 7–11 July, 2014, Prague, Czech Republic. – [S. l.], 2014. – Vol. 6. – P. 1–10. DOI: 10.1115/ICONE22-31171.

10. V. Kharchenko, V. Duzhyi, V. Sklyar, A. Volkoviy. Diversity assessment of multi-version NPP I&C Systems: NUREG7007 and CLB-BASED techniques. 11th IEEE East-West Design and Test Symposium. EWDTS'2013 : proceedings, 27–30 Sept. 2013. – P. 1–5. DOI: 10.1109/EWDTS.2013.6673088

11. V. Kharchenko, A. Volkoviy, O. Siora, V. Duzhyi. Metric-probabilistic assessment of multi-version systems: Some models and techniques. Dependable Computer Systems : [proc. of the Sixth Intern. conf. on Dependability and Computer Systems. DepCoS-RELCOMEX'2011, June 27 – Jul 11, Wroclaw, Poland]. – Berlin : Springer, 2011. – P. 87–100. – (Advances in Intelligent and Soft Computing. AINSC ; Vol. 97. – ISSN 1867-5662). DOI: 10.1007/978-3-642-21393-9_7

Books, Chapters in Collective Monographs:
–

Links to Citation Database Profiles:
Scopus authors:
https://www.scopus.com/authid/detail.uri?origin=AuthorProfile&authorId=50860981600&zone=
Web of Science: https://www.webofscience.com/wos/author/record/ABC-3153-2022
ORCID: https://orcid.org/0000-0002-3383-1893
Google Scholar:
https://scholar.google.com/citations?hl=en&user=GDl1wugAAAAJ&view_op=list_works
ResearchGate: https://www.researchgate.net/profile/Vyacheslav-Duzhyi/research

ADDITIONAL INFORMATION:

Language Proficiency:
Ukrainian, Russian, English

IT Skills:
Operation systems: Microsoft Windows, Apple MacOS, Linux
Programming languages: Assembler, C/C++
Modeling Language: UML

**NATIONAL AEROSPACE UNIVERSITY
«KHARKIV AVIATION INSTITUTE»**

IDE and Code Editor for Software Development: Visual Studio, Visual Studio Code
Learning platform: Google Class, Sakai, Mentor
Office Suite: Microsoft Office (Word, Excel, Visio, PowerPoint), MacOS (Pages, Numbers)

Social and Community Activities:
Member of the Scientific and Methodological Commission National Aerospace University "Kharkiv Aviation Institute".
[2020-2024] Guarantor of the Educational and professional program "System Programming" in the specialty F7 " Computer Networks ".
[2021 – till now]
Member of the public organization "Ukrainian Scientific and Educational IT Society" ("USE IT").