Name	Eugene Brezhnev
Position, Department/Faculty	Department of Computer Systems, Networks and Cybersecurity (503) RECSI Faculty, National Aerospace University «Kharkiv Aviation Institute»
Academic Degree, Academic Title	Doctor of Technical Sciences, Professor
Email:	e.brezhnev@csn.khai.edu
Scopus Author ID:	https://www.scopus.com/authid/detail.uri?authorId=57572740100
Web of Science Researcher ID:	https://www.webofscience.com/wos/author/record/1859632
ORCID iD:	https://orcid.org/0000-0003-2073-9024
Google Scholar:	https://scholar.google.com.ua/citations?user=V3hli3kAAAAJ&amp
ResearchGate:	https://www.researchgate.net/profile/Eugene-Brezhnev

EDUCATION:

Basic education (university, major, year of graduation):
Kharkiv Military University, qualification – Engineer-Ballistic, 1994.

Postgraduate/Doctoral studies:
1. Kharkiv Military University, Candidate of Technical Sciences (PhD), 2001.
2. National Aerospace University "Kharkiv Aviation Institute", Doctor of Technical Sciences (D. Sc.), 2017.

WORK EXPERIENCE:

September 1996 – August 2000 – Kharkiv Military University, Full-time adjunct.
September 2000 – November 2011 – Kharkiv Military University, Senior Researcher.
December 2011 – August 2014 – National Aerospace University "Kharkiv aviation institute", Doctoral student.
September 2014 – May 2017 – National Aerospace University "Kharkiv aviation institute", Associate Professor of the Department of Computer Systems, Networks and Cybersecurity.
June 2017 – till now – National Aerospace University "Kharkiv aviation institute", Professor of the Department of Computer Systems, Networks and Cybersecurity.

Experience in International or National Projects:
1. TEMPUS "SAFEGUARD" National Safeware Engineering Network of Centres of Innovative Academia-Industry Handshaking (National Network of Innovative University-Industry Cooperation in Safety Engineering) 158886-TEMPUS-1-2009-1-UK-TEMPUS-JPCR (2010 – 2013), where I was responsible for the development of educational and methodological support for the course "Fundamentals of IT – Safety Engineering of Critical Infrastructures."

2. TEMPUS "GREENCO" Green Computing and Communication (Green Computing and Communications), 530270-TEMPUS-1-2012-UK-TEMPUS-JPCR (2012 – 2015), where I was responsible for developing the educational and methodological support for the course "Research and Development of Information Technologies for Intelligent Energy Infrastructures";

3. TEMPUS «SEREIN» Modernization of Postgraduate Studies on Security and Resilience for Human and Industry Related Domains (Modernization of Courses on Information Security and Resilience for Humanitarian and Industrial Domains), 543968-TEMPUS-1-2013-1-EE-TEMPUS-JPCR (2013 – 2016), where I was responsible for the development of the educational and methodological support for the course 'Analysis and Security Assurance of Smart Grid';

4. TEMPUS "CABRIOLET" Model-Oriented Approach and Intelligent Knowledge-Based System for Evolvable Academia-Industry Cooperation in Electronic and Computer Engineering (Model-oriented approach and intelligent system for evolutionary cooperation between academia and industry in the field of electronic and computer engineering) 544497-TEMPUS-1-2013-1-UK-TEMPUS-JPHES (2014 – 2016), where I was a co-author of a collective monograph on University-Industry Cooperation in four volumes, namely: "Volume 4. Capacity Building, Training";

5. ERASMUS+ "ALIOT" Internet of Things: Emerging Curriculum for Industry and Human Applications (Internet of Things: a new curriculum for the needs of industry and society), 573818-EPP-1-2016-1-UK-EPPKA2-CBHE-JP (2016 – 2020), where I was responsible for the development of educational and methodological support for the course: "Internet of Things for Smart Energy Grid."

6. Development of WILDfire preparedness and prevention framework for unmanned vehiCle plATforms

("WILDCAT"). The Swedish Institute with a Grant Decision dated 2024-06-24 (number 00095/2024 (2024 - 2025)

RESEARCH ACTIVITIES:

Main Research Areas:
- Functional safety, cybersecurity of Information and Control Systems and critical infrastructures
- Software quality assurance
- Business process modeling
- Digital transformation of the IT industry

Number of Publications (Scopus, WoS, others):
More than 150 scientific publications (Scopus – 39, WoS – 12)

Membership in Professional Associations:
National expert of TC 99 in the international standardization organization IEC TC SC-45A IEC TC SC-45A (working group №7, Functional and safety fundamentals of instrumentation, control and electrical power systems).

Participation in Scientific Conferences:
1. IEEE International Conference on Dependable Systems, Services and Technologies (DESSERT).
2. International Conference on Dependability and Complex Systems (Depcos).

INTERNATIONAL ACTIVITIES:

Cooperation with Foreign Universities:
1. KTH Royal Institute of Technology (Sweden).

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. Dotsenko, S., E., Brezhniev, Eugene, D., Nor, Dmytro, L., Klymenko, Liubov, A., Hnatchuk, A. Logical-semantic models and methods of knowledge representation: cases for energy management systems and SMR Digital Infrastructures Radioelectronic and Computer Systems, 2024, V2, pp.213-229, DOI: https://doi.org/10.32620/reks.2024.2.17

2. K.Polishchuk, E. Brezhniev The use of artificial intelligence in adapting process of UI design system for end customer requirements, Radioelectronic and Computer Systems, 2024, V4., pp. 20-33. DOI: https://doi.org/10.32620/reks.2024.4.02

3. Brezhniev, Y., Kharchenko, V., Dotsenko, S., Nor, D. Databases for Digital Infrastructure of Small Modular Reactors Considering Dynamic Subject Area. // Proc. 2023 IEEE 13th Int. Conf. on Dependable Systems, Services and Technologies (DESSERT'2023). – Kyiv, Ukraine, 2023. – P. 1-6. DOI: 10.1109/DESSERT61349.2023.10416500.

4. Ivanchenko, O.; Brezhniev, E.; Kliushnikov, I.; Moroz, B. Cloud Simulation and Virtualization for Testing of Critical Energy Infrastructure Components International Journal of Computing 2021**,** Journal article DOI: 10.47839/ijc.20.1.2100

5. Fesenko H., Kharchenko V., Bardis N., Kor A. L., Brezhniev Y. Drone fleet survivability evaluation based on Lanchester's modified deterministic model. *International Journal of Circuits, Systems and Signal Processing*. 2020. Vol. 14. P. 775–781. DOI: 10.46300/9106.2020.14.99 (Scopus Q4). URL: https://doi.org/10.46300/9106.2020.14.99.

6. Brezhniev E., etc. Chapter 2. Natural Intelligence Systems. Methodology of Holistic and Systemic Approaches. Intelligent Cybernetic Systems: Evolution of Principles, Theories, and Security Technologies: collective monograph / edited by S. I. Dotsenko, V. S. Kharchenko. Ministry of Education and Science of Ukraine, National Aerospace University named after M. E. Zhukovsky 'KhAI'. Kyiv: 'Yuston Publishing', 2023. P. 11-9. ISBN 978-617-7854-91-2.

7. Monte-Carlo Simulation and Availability Assessment of the Smart Building Automation Systems Considering Component Failures and Attacks on Vulnerabilities / V. Kharchenko, Y. Ponochovnyi, E. Brezhniev, A. Boyarchuk // Dependability and Complex Systems. DepCoS-REL-COMEX'2018: proc. of

the XIII Intern. conf., Lwowek Slaski, Poland, 2–6 July 2018. – (Advances in Intelligent Systems and Computing ; Vol. 761). – P. 270–280.

8.Modelling and Safety Assessment of Programmable Platform Based Information and Control Systems Considering Hidden Physical and Design Faults / V. Kharchenko, E.Brezhniev, Y. Ponochovnyi, A. Andrashov, E. Bulba // Dependability and Complex Systems. DepCoS-REL-COMEX'2019 : proc. of the XIV Intern. conf., Brunów; Poland Poland, 1–5 July 2019. – Brunów, 2019 – (Advances in Intelligent Systems and Computing; Vol. 987). – P. 264–273.

9. Dependability Assessment for SCADA System Considering Usage of Cloud Resources / O. Ivanchenko, V. Kharchenko, E. Brezhniev, Y. Ponochovnyi, B. Moroz, L. Kabak // Dependable Systems, Services and Technologies. DESSERT'2020 : proc. of XI Intern. Conf., Kyiv, Ukraine, 14-18 May 2020. – P. 13–18.

Books, Chapters in Collective Monographs:
Brezhniev E. NPP-Smart Grid Mutual Safety and Cyber Security Assurance.. In: Research Anthology on Smart Grid and Microgrid Development. – Volume 3, 1 , 2022: IGI Global, 2022. – P. 1047 - 1077. DOI: 10.4018/978-1-6684-3666-0.ch047

Links to Citation Database Profiles:

Web of Science Researcher ID: https://www.webofscience.com/wos/author/record/1859632
ORCID iD: https://orcid.org/0000-0003-2073-9024
Google Scholar: https://scholar.google.com.ua/citations?user=V3hli3kAAAAJ&amp
ResearchGate: https://www.researchgate.net/profile/Eugene-Brezhnev

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, English

IT Skills:
Operation Systems: Windows.
Mathematical Programs: MatLab.
Learning Platform: Moodle, Mentor.
Technologies: Neural Network, IoT, Machine learning, Fuzzy Logic, Bayesian Networks

Social and Community Activities:

- Member of the editorial board of the scientific and technical journal "Radio-electronic and computer systems", the founder of which is the National Aerospace University ("Kharkiv Aviation Institute", KhAI).

- Member of the program committee of the International Conference DEpendable System, SERvices and Technologies (DESSERT), co-founded by the National Aerospace University ("Kharkiv Aviation Institute", KhAI).
- Member of the program committee of the annual International Conferences Dependability and Complex Systems (DepCoS-RELCOMEX), organized by the Institute of Technology (Wroclaw, Poland) and, Dependable Systems, Services and Technology (DESSERT), which KHI holds together with universities in Great Britain, Estonia, Italy, Slovakia and other countries.