



Name	Konstantyn Lysytskyi
Position, Department/Faculty	Associate Professor of the Department of Mathematical Modeling and Data Analysis of the Educational and Scientific Institute of Computer Science and Artificial Intelligence of V. N. Karazin Kharkiv National University, Senior Lecturer of the Department of Computer Systems, Networks and Cybersecurity of the National Aerospace University "Kharkiv Aviation Institute"
Academic Degree, Academic Title	Doctor of Philosophy
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Google Scholar:	https://scholar.google.com/citations?hl=uk&view_op=list_works&authuser=1&gmla=APjjwuZob-PPf49SSLefLYCZxkIhQqo1nZMxOAQ5kUHOVSVs4hBTPURNY_wmMwO5p1IR9Z8PISHPdkPV15R74GR_LQxqATveX7rz5LkfdjFTxwasC8eZq3gyug80EhpNvMY0nZx7IZbzh7iS44i3GxJIfsK6pwmMKUDojWH8dPGn8npar4CSRMdEs0LituwdmwgvRNOOfYc-OD&user=nBzlY0kAAAAJ
ResearchGate:	

EDUCATION:

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

Master in Information and Communication Systems Security
Kharkiv National University named after V.N. Karazin [01/09/2014 – 30/06/2016]

Specialist in the specialty "Economic Cybernetics"
Kharkiv National University of Radio Electronics [10/11/2016]

Postgraduate/Doctoral studies:

Doctor of Philosophy in Computer Science
Ministry of Education and Science of Ukraine [06/01/2022]

Additional training, certification programs:

Certificate of Participation in the online course:
"New and innovative teaching methods" organized by Malopolska School of Public Administration
Kharkov University of Economics, [18 September–27 October 2023] 5 ECTS credits





WORK EXPERIENCE:

Professional career (place of work, years, position):

Technician - designer

Joint-stock company Institute of Information Technologies

[1.07.2014 - 14.09.2016]

Lecturer at the Department of Modeling Systems and Technologies

Kharkiv National University named after V.N. Karazin

[02/01/2018 – 08/31/2018]

Senior lecturer of the Department of Artificial Intelligence and Software

Kharkiv National University named after V.N. Karazina [1.09.18 - 31.08.24]

Associate Professor of the Department of Mathematical Modeling and Data Analysis from September 1, 2024 to the present

RESEARCH ACTIVITIES:

Main Research Areas:

Information security, cryptanalysis of block symmetric ciphers, post-quantum cryptography

Number of Publications (Scopus, WoS, others):

More than 60 scientific publications, including indexed articles in Scopus and Web of Science databases; numerous materials of conferences and results of applied research.

Monographs, Textbooks:

Co-author of 2 monographs in the field of information security.

Participation in Scientific Conferences:

Participant (more than 20) and speaker of international and national scientific conferences on information security.

TEACHING ACTIVITIES:

Courses Taught:

Applied cryptology, Information security management, algorithm design and programming, object-oriented programming



Methodological Materials, Textbooks:

Lysitsky Konstantin Evgenievich. Information protection technologies: methodological instructions for practical classes in the discipline for applicants for higher education of the first (bachelor's) level in the specialty 151 "Automation and computer-integrated technologies" (174 "Automation, computer-integrated technologies and robotics") [Electronic resource] / K. E. Lysitsky, I. V. Lysitskaya, D. Yu. Uzlov. – Kharkiv: Kharkiv National University named after V. N. Karazin, 2025. – 82 p. (PDF)
URI <https://ekhnuir.karazin.ua/handle/123456789/22550>.

Information protection technologies: a summary of lectures on the discipline for first-year (bachelor's) level higher education students in specialty 151 "Automation and computer-integrated technologies" (174 "Automation, computer-integrated technologies and robotics") of the educational program "Automation and computer-integrated technologies" [Electronic resource] / compiled by K. E. Lysitsky, E. P. Kolovanova, D. Yu. Uzlov. – Kharkiv: V. N. Karazin Kharkiv National University, 2025. – 165 p. (PDF)
URI <https://ekhnuir.karazin.ua/handle/123456789/22554>.

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

Lysytskyi, K., & Lysytska, I. (2025). The idea of cracking a hash function at quantum speed. Radiotekhnika, (221), 51–56.

<https://doi.org/10.30837/rt.2025.2.221.07>.

Lysytskyi K. E., Soldatenko D. S. Modeling the structure of roles in the project task management system. Bulletin of Kharkiv National University named after V.N. Karazina, series of mathematical modeling. Information technologies Automated management systems. 2025. Issue 65. P.35-46.
<https://doi.org/10.26565/2304-62001-2025-64-03>.

I. V. Lysytska, K. E. Lysytskyi, I. M. Galtseva., E. P. Kolovanova. Peculiarities of construction of nonlinear transformations of block symmetric ciphers // Radiotekhnika: Vseukr. between science and technology coll. 2025. Issue 222. P. 62-68.

I. V. Lysytska, K. E. Lysytskyi, I. M. Galtseva. Evolution of architectures of block symmetric ciphers. // Radio engineering: All-Ukrainian. between science and technology coll. 2025. Issue 223. pp. 31-38.

Iryna Lysytska, Kostiantyn Lysytskyi, Oleksii Nariezhnii, Tetiana Hrinenko. On the Influence of S-BOXES on the Arrival of the Cipher to the State of Random Substitution. Radioelectronic and Computer Systems. No. 3 (2023). P. 150. DOI:

<http://nti.khai.edu/ojs/index.php/reks/article/view/reks.2023.3.12/2127>.

Lisickiy K.E. Ciphers with random substitions / K.E. Lisickiy, V.I. Dolgov, I.V. Lisickaya // SCIREA Journal of Physics. 2019 – Volume 4. Issue 6 – pp, 281-310.
<https://www.scirea.org/journal/PaperInformation?PaperID=2116>.

Block symmetric cipher with random s-boxes Lisickiy, K., Dolgov, V., Lisickaya, I., Kuznetsova, K. International Journal of Computing this link is disabled, 2019, 18(1), ctp. 89–100. (SCOPUS). URL: <http://www.scopus.com/inward/record.url?eid=2-s2.0-85065470162&partnerID=MN8TOARS>.

Lysitsky K.E. The law of probability distribution shifted tables of approximations of random substitutions / K.E. Lysitsky // 0485-8972. - Radio engineering - All-Ukrainian. interdisciplinary scientific



and technical Sat. – 2017. – Issue 189. - pp. 81-89.

[https://nure.ua/wp-content/uploads/2017/Scientific_editions/190/11.pdf\.](https://nure.ua/wp-content/uploads/2017/Scientific_editions/190/11.pdf)

Random S-boxes in symmetric ciphers Lisickiy, K., Lisickaya, I., Dolgov, V., Kuznetsova, K. 2019 IEEE 2nd Ukraine Conference on Electrical and Computer Engineering, UKRCON 2019 – Proceedings this link is disabled, 2019, стр.889–894, 8879986.

URL: <http://www.scopus.com/inward/record.url?eid=2-s2.0-85074937969&partnerID=MN8TOARS>.

Lisitskiy K.E. On Maxima Distribution of Full Differentials and Linear Hulls of Block Symmetric Cipher / K.E. Lisitskiy // I.J. Computer Network and Information Security, 2014, 1, 11-18 Published Online November 2013 in MECS (<http://www.mecs-press.org/>) DOI: 10.5815/ijcnis. 2014.01.02.

[https://scispace.com/pdf/on-maxima-distribution-of-full-differentials-and-linear-32oehqu0ms.pdf.](https://scispace.com/pdf/on-maxima-distribution-of-full-differentials-and-linear-32oehqu0ms.pdf)

Books, Chapters in Collective Monographs:

Poluyanenko N., Kuznetsov A., Lisickiy K., Datsenko S., Nakisko O., Rudenko S. (2021) The Problem of Double Costs in Blockchain Systems // Hu Z., Petoukhov S., Dychka I., He M. (eds) Advances in Computer Science for Engineering and Education III. ICCSEEA 2020. Advances in Intelligent Systems and Computing, vol 1247. Springer, Cham. PP 640-652. ISSN 2194-5357, ISSN 2194-5365 (electronic), ISBN 978-3-030-55505-4, ISBN 978-3-030-555061 (eBook)
https://doi.org/10.1007/978-3-030-55506-1_57

ISCI'2018: Information Security in critical infrastructures. Collective monograph. Edited by Ivan D. Gorbenko and Aleksandr A. Kyznetso. ASC Academic Publishin. Mindon, Nevada, USA. / K.E. Lisitsky and others // Chapter 4, Block symmertrik cipher with random S-boxes. p. 100-124.

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian, English

IT Skills:

Microsoft Office / Microsoft Excel / Zoom / Google Drive / Microsoft Powerpoint / Skype / Microsoft Visual Studio /intellij idea/, Organizational and planning skills



