
Hanna Yarovenko

Doctor of Economic Sciences, Associate Professor

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ORCID: <https://orcid.org/0000-0002-8760-6835>

Scopus ID: 57210605480 **h-index:** 10

ResearcherID Web of Science: P-3734-2014 **h-index:** 5

Google Scholar: <https://scholar.google.com/citations?user=kk67yQUAAAAJ> **h-index:** 17

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Proactive lecturer with 20+ years of experience in teaching mathematical methods and information systems in economics and business. Author of 50+ academic publications featured in international and national peer-reviewed journals, monographs, and conference proceedings. Has coordinated research projects and served as principal investigator on national scientific grants. Research interests include digital transformation of the national economy and combating illicit practices.

EDUCATION

2019-09 – Doctor of Economic Sciences, Sumy State University, Sumy, Ukraine

2021-09 Specialty: Economics and Management of the National Economy

Thesis title: Information Security as a Driver of National Economy Development
Diploma DD No. 012125 from 27.09.2021

2012-09 Academic Title of Associate Professor of Economic Cybernetics Department, Ministry of Education and Science, Youth and Sports, Ukraine

Diploma 12 DC No. 032228 from 26.09.2012

2009-04 – PhD in Economics, State Academy of Statistics, Accounting and Audit of the State Statistics Committee of Ukraine, Kyiv, Ukraine

2002-09 Specialty: Accounting, Analysis and Audit (by Types of Economic Activity)

Thesis title: Organization of Internal Control in the Management System of Enterprises' Financial Flows
Diploma DK No. 050974 from 28.04.2009

2001-09 – Specialist Degree (equivalent to Master's), Ukrainian Academy of Banking, Sumy, Ukraine

2002-06 Specialty: Accounting and Auditing

Dissertation Topic: Application of automated tools for data processing in audit
Diploma C25 001566

1997-09 – Bachelor's Degree, Ukrainian Academy of Banking, Sumy, Ukraine

2001-06 Specialty: Economics and entrepreneurship

Diploma B25 012678

PROFESSIONAL APPOINTMENTS

2022-04 – University: Universidad Carlos III de Madrid, Madrid, Spain

2025-04 Department: Computer Sciences and Engineering Department

Position: Visiting Professor

2016-05 – University: Sumy State University, Sumy, Ukraine

present* Department: Economic Cybernetics Department

Position: Associate Professor **At present, employment is part-time and remote*

- 2009-12 – University:** Ukrainian Academy of Banking, National Bank of Ukraine, Sumy, Ukraine
2016-04 Department: Economic Cybernetics Department
Position: Associate Professor
- 2008-09 – University:** Ukrainian Academy of Banking, National Bank of Ukraine, Sumy, Ukraine
2009-11 Department: Economic Cybernetics Department
Position: Senior Lecturer
- 2002-10 – University:** Ukrainian Academy of Banking, National Bank of Ukraine, Sumy, Ukraine
2008-08 Department: Economic Cybernetics Department
Position: Assistant Lecturer

LIST OF MAIN PUBLICATIONS

Publications in the international peer-reviewed journals:

1. Yarovenko, H., Vasilyeva, T., Ustinovichius, L., & Remsei, S. (2024). Illicit practices: Experience of developed countries. *Journal of International Studies*, 17(2), 146-177. <https://doi.org/10.14254/2071-8330.2024/17-2/8>. (**Scopus, Q2**)
2. Yarovenko, H., Norek, T., Kuzior, A., & Lopatka, A. (2024). The future of artificial intelligence: Fear, hope or indifference? *Human Technology*, 20(3), 611-639. <https://doi.org/10.14254/1795-6889.2024.20-3.10>. (**Scopus, WoS, Q2**)
3. Kuzior, A., Yarovenko, H., Brożek, P., Sidelnyk, N., Boyko, A., & Vasilyeva, T. (2023). Company cybersecurity system: Assessment, risks and expectations. *Production Engineering Archives*, 29(4), 379-392. <https://doi.org/10.30657/pea.2023.29.43>. (**Scopus, WoS, Q2**)
4. Yarovenko, H., Lyeonov, S., Wojcieszek, K. A., & Szira, Z. (2023). Do IT users behave responsibly in terms of cybercrime protection?. *Human Technology*, 19(2), 178-206. <https://doi.org/10.14254/1795-6889.2023.19-2.3>. (**Scopus, WoS, Q2**)
5. Kuzmenko, O., Yarovenko, H., & Perkhun, L. (2023). Assessing the maturity of the current global system for combating financial and cyber fraud. *Statistics in Transition new series*, 24(1), 229-258. <https://doi.org/10.59170/stattrans-2023-013>. (**Scopus, Q4**)
6. Yarovenko, H., Lopatka, A., Vasilyeva, T., & Vida, I. (2023). Socio-economic profiles of countries-cybercrime victims. *Economics & Sociology*, 16(2), 167-194. <https://doi.org/10.14254/2071-789X.2023/16-2/11>. (**Scopus, WoS, Q2**)
7. Kuzmenko, O., Bilan, Y., Bondarenko, E., Gavurova, B., & Yarovenko, H. (2023). Dynamic stability of the financial monitoring system: Intellectual analysis. *PloS one*, 18(1), e0276533. <https://doi.org/10.1371/journal.pone.0276533>. (**Scopus, WoS, Q1**)
8. Kuzior, A., Brożek, P., Kuzmenko, O., Yarovenko, H., & Vasilyeva, T. (2022). Countering cybercrime risks in financial institutions: Forecasting information trends. *Journal of Risk and Financial Management*, 15(12), 613. <https://doi.org/10.3390/jrfm15120613>. (**Scopus, WoS, Q2**)
9. Vasilyeva, T., Yarovenko, H., Babenko, D., Kalicheva, N., Frolova, N., & Shylovtseva, N. (2022). The barycentric model of determining the sustainable growth determinants. *Heritage and Sustainable Development*, 4(2), 145-164. <https://doi.org/10.37868/hsd.v4i2.148>. (**Scopus, Q2**)
10. Yarovenko, H., Bilan, Y., Lyeonov, S., & Mentel, G. (2021). Methodology for assessing the risk associated with information and knowledge loss management. *Journal of Business Economics and Management*, 22(2), 369-387. <https://doi.org/10.3846/jbem.2021.13925>. (**Scopus, WoS, Q2**)
11. Lyeonov, S., Bilan, S., Yarovenko, H., Ostasz, G., & Kolotilina, O. (2021). Country's health profile: Social, economic, behavioural and healthcare determinants. *Economics & Sociology*, 14(3), 322-340. <https://doi.org/10.14254/2071-789X.2021/14-3/17>. (**Scopus, WoS, Q2**)
12. Lyeonov, S., Yarovenko, H., Koibichuk, V., Boyko, A., & Kravchyk, Yu. (2021). Creation of users'

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- screen forms of the financial monitoring automated information system for economic development and economic growth. *Financial and credit activities: problems of theory and practice*, 6(41), 212-222. <https://doi.org/10.18371/fcaptp.v6i41.251441>. **(WoS)**
13. Kuzmenko, O., Cyburt, A., Yarovenko, H., Yesh, V., & Humenna, Y. (2021). Modeling of “information bubbles” in the global information space. *Journal of International Studies*, 14(4), 270-285. <https://doi.org/10.14254/2071-8330.2021/14-4/18>. **(Scopus, Q2)**
 14. Yarovenko, H. (2020). Evaluating the threat to national information security. *Problems and Perspectives in Management*, 18(3), 195-210. [https://doi.org/10.21511/ppm.18\(3\).2020.17](https://doi.org/10.21511/ppm.18(3).2020.17). **(Scopus, Q2)**
 15. Lyeonov, S., Kuzmenko, O., Yarovenko, H., & Dotsenko, T. (2019). The innovative approach to increasing cybersecurity of transactions through counteraction to money laundering. *Marketing and Management of Innovations*, 3, 308-326. <https://doi.org/10.21272/mmi.2019.3-24>. **(WoS)**
 16. Berzin, P., Shyshkina, O., Kuzmenko, O., & Yarovenko, H. (2018). Innovations in the risk management of the business activity of economic agents. *Marketing and Management of Innovations*, 4, 221-233. <https://doi.org/10.21272/mmi.2018.4-20>. **(WoS)**

Conference Papers:

17. Mursalov, M., Yarovenko, H., & Vasilyeva, T. (2022, June). Entrepreneurial ecosystem and digitalization: Relationship and synergy of development. In *PRIZK International Conference-Novel Insights in the Leadership in Business and Economics After the COVID-19 Pandemic* (pp. 109-127). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-28131-0_9. **(Scopus)**
18. Leonov, S., Yarovenko, H., Boiko, A., & Dotsenko, T. (2019). Information system for monitoring banking transactions related to money laundering. *CEUR Workshop Proceedings*, 2422, 297-307. <http://ceur-ws.org/Vol-2422/paper24.pdf>. **(Scopus)**

Books:

19. Yarovenko, H. (2025). *Machine learning for ensuring cybersecurity in the financial services sector: a textbook*. Sumy: Publishing and Production Enterprise “Mriya”. ISBN 978-966-473-372-1. Available at <https://essuir.sumdu.edu.ua/handle/123456789/99899> [in Ukrainian].
 20. Yarovenko, H., Koybichuk, V., Bozhenko, V., & Pakhnenko, O. (Eds.). (2024). *Countering cyber fraud in the financial sector: EU practice*. Sumy: Publishing and Production Enterprise “Mriya”. ISBN 978-966-473-365-3. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/97934/1/Yarovenko_financial_literacy.pdf;jsessionid=5C3DA5EDA5C532C9933028477A058CDB [in Ukrainian].
 21. Boyko, A., & Yarovenko, H. (Eds.). (2023). *Improvement of the system of prevention and countermeasures against financial cyber fraud: theoretical, methodological and practical aspects*. Sumy: Sumy State University. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/93423/1/Boiko_Yarovenko.pdf [in Ukrainian].
 22. Kuzmenko, O., Yarovenko, H., & Bozhenko, V. (2021). *Tackling Illicit Financial Flows and Cyberattacks for Enhancing National Security*. Szczecin: Centre of Sociological Research. ISBN 978-83-963452-7-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/91725/1/Kuzmenko_cyberrisk.pdf
 23. Kuzmenko, O. V., Yarovenko, H. M., Boyko, A. O., & Mynenko, S. V. (2019). *Information system of financial monitoring: features of development and implementation in modern conditions of combating the legalisation of criminal income*. Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-9. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79744/1/Kuzmenko_%20Protydiia%20lehalizatsii%20koshtiv_%20paper.pdf. [in Ukrainian].
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24. Yarovenko, H.M. (2016). *Modelling and automation of accounting, control, audit*. Sumy: Publisher: PP Vinnychenko M.D., FOP Lytovchenko E.B. ISBN 978-966-1569-30-9. [in Ukrainian].

Book sections:

25. Yarovenko, H. (2024). Digital transformation: economy development and fighting against illegal practices. In Collective monograph, *Anti-Crisis Strategy for the Development of Socio-Economic Systems: Global Challenges* (pp. 177-198). Riga, Latvia: Baltija Publishing. ISBN 978-9934-26-500-6. <https://doi.org/10.30525/978-9934-26-500-6-8>.
26. Yarovenko, H. (2023). Victims of cyberfraud: gender analysis. In Sainz de Baranda Andújar, Clara (Ed.), *Laperspectiva de género en los procesos de formación y evaluación del Sistema Universitario* (pp. 105-118). Universidad Carlos III de Madrid. Instituto de Estudios de Género. ISBN 978-84-16829-80-4. Available at <https://e-archivo.uc3m.es/rest/api/core/bitstreams/782e6671-b384-4a70-9f89-81533fc587dd/content>.
27. Yarovenko, H. (2023). Systematization of methods for detecting insiders' cyber threats in banks. In Tatomyr, I., & Kvasnii, L. (Eds.), *Global and national development trends digital economy* (pp. 248-271). Praha: OKTAN PRINT. ISBN 978-80-88618-10-2. <https://doi.org/10.46489/gandtde-23-29>.
28. Yarovenko, H., Kuzmenko, O., Orekhova, Y., & Dotsenko, T. (2020). Modelling the volatility of cryptocurrencies as a tool to counter the shadow economy and achieve inclusive growth. In T. Vasilyeva, & S. Lyeonov (Ed.), *Inclusive Growth: basics, indicators, and development priorities* (pp. 231-258). Szczecin: Centre of Sociological Research. <https://doi.org/10.14254/978-83-959336-0-8/2020>.
29. Yarovenko, H. M. (2020). Information security as a basis for the formation of country's cyberspace. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Theory and practice of ensuring the development of cyberspace of the country* (pp. 7-46). Kyiv: Interservice. ISBN 978-966-999-097-6. [In Ukrainian].
30. Yarovenko, H.M., & Kuzmenko, O.V. (2020). System-dynamic approach to the transformation of protection systems based on blockchains. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Theory and practice of ensuring the development of cyberspace of the country* (pp. 78-92). Kyiv: Interservice. ISBN 978-966-999-097-6. [In Ukrainian].
31. Yarovenko, H. M., & Boyadzhyan, M. M. (2018). Analysis of the cyber fraud consequences in the banking system of Ukraine. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 43-47). Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].
32. Yarovenko, H. M., & Boyadzhyan, M. M. (2018). Estimation of influence of macroeconomic factors on formation of tendency to fraud in the banking sphere. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 47-61). Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].
33. Yarovenko, H. M., & Kovach, V. O. (2018). Simulation of potential victim and fraudster portraits. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 68-74). Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].
34. Yarovenko, H. M., & Boyadzhyan M. M. (2018). Application of data mining to predict the likelihood of fraudulent transactions. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 74-80). Sumy: Yaroslavna Publishing House. ISBN 978-
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- 966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].
35. Yarovenko, H. M. (2018). Development of an information model for detecting signs of fraud in banks. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 96-101). Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].
36. Yarovenko, H. M., & Klimov, S. V. (2018). Development of an automated module prototype for the process of detecting fraudulent transactions with bank cards. In O.V. Kuzmenko, & H.M. Yarovenko (Ed.), *Modern tools of fight against cyber fraud in banks* (pp. 101-118). Sumy: Yaroslavna Publishing House. ISBN 978-966-7538-52-1. Available at https://essuir.sumdu.edu.ua/bitstream-download/123456789/79743/1/Kuzmenko_%20Kibershakhraistvo_%20paper.pdf. [In Ukrainian].

Publications in the national peer-reviewed journals:

37. Yarovenko, H., Kuzior, A. & Raputa, A. (2023). The modelling of the probable behaviour of insider cyber fraudsters in banks. *Financial Markets, Institutions and Risks*, 7(4), 155-167. [http://doi.org/10.61093/fmir.7\(4\).155-167.2023](http://doi.org/10.61093/fmir.7(4).155-167.2023).
38. Yarovenko, H. (2023). The concept of creating an expert system for early diagnostic signals of suspicious activities of financial institution employees. *Economy and society*, 57. <https://doi.org/10.32782/2524-0072/2023-57-130> [In Ukrainian].
39. Yarovenko, H., & Soliarova, K. (2023). Forecasting information trends cyberattacks as a tool for countering vulnerabilities In the economy. *Economy and society*, 51. <https://doi.org/10.32782/2524-0072/2023-51-27> [In Ukrainian].
40. Yarovenko, G. M., Perkhun, L. P., Nebaba, N. A., Bulhakova, O. F., & Kostenko, V. V. (2023). Development of a model for the formalization of the process of detecting insider cyber threats in banks: an ontological approach. *Actual Problems in Economics*, 268, 71-83. <https://doi.org/10.32752/1993-6788-2023-1-268-71-83> [In Ukrainian].
41. Perkhun, L., Yarovenko, H., Yakovenko, V., Lebid, O., & Korneyev, M. (2023). Application of survival analysis methods for assessing the efficiency of financial monitoring and cyber security systems. *Herald of Khmelnytskyi National University. Economic sciences*, 320(4), 286-291. <https://doi.org/10.31891/2307-5740-2023-320-4-42> [In Ukrainian].
42. Yarovenko, H., Petrenko, K., Ulyanovska, Yu., Nebaba, N., & Mormul, M. (2023). Development of the structure of the information base of the expert system for detecting insider cyber threats in banks. *Academic visions*, 26. Available at <https://academy-vision.org/index.php/av/article/view/777/703> [In Ukrainian].
43. Yarovenko, H., & Rogkova, M. (2022). Dynamic and bibliometric analysis of terms identifying the combating financial and cyber fraud system. *Financial Markets, Institutions and Risks*, 6(3), 93-104. [https://doi.org/10.21272/fmir.6\(3\).93-104.2022](https://doi.org/10.21272/fmir.6(3).93-104.2022).
44. Yarovenko, H., & Kocherezhchenko, R. (2022). Analysis and modelling of socio-economic development of countries taking into account the level of their cybersecurity. *Bulletin of Sumy State University. Economics Series*, 1, 53-62. <https://doi.org/10.21272/1817-9215.2022.1-5> [In Ukrainian].
45. Yarovenko, H., Kolotilina, O., & Svitlychna, A. (2021). Assessment of the convergence level of the cyber security system and counteraction of money laundering. *The Journal of V. N. Karazin Kharkiv National University. Series: International Relations. Economics. Country Studies. Tourism*, 14, 119-130. <https://doi.org/10.26565/2310-9513-2021-14-12> [In Ukrainian].
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46. Kuzmenko, O., Yarovenko, H., & Radko, V. (2021). Preliminary analysis of the convergence process of cyber security systems and financial monitoring of countries. *Economy and Society*, 32. <https://doi.org/10.32782/2524-0072/2021-32-37> [In Ukrainian].
 47. Yarovenko, H., & Litsman, M. (2021). Analysis and forecasting the impact of the country's digitalization level on its economic development. *Bulletin of Sumy State University. Economics Series*, 4, 203-214. <https://doi.org/10.21272/1817-9215.2021.4-24> [In Ukrainian].
 48. Yarovenko, H., & Radko, V. (2021). Assessment of the probability of fraud in the process of lending to the bank's customers. *Bulletin of Sumy State University. Economics Series*, 3, 203-214. <https://doi.org/10.21272/1817-9215.2021.3-17> [In Ukrainian].
 49. Yarovenko, H. (2020). Consequences of information wars as a factor of economic destabilization of the country. *International scientific journal "Internauka". Series: "Economic Sciences"*, 9(1), 94-103. <https://doi.org/10.25313/2520-2294-2020-9-6318> [In Ukrainian].
 50. Yarovenko, H., Kuzmenko, O., & Stumpo, M. (2020). Strategy for determining country ranking by level of cybersecurity. *Financial Markets, Institutions and Risks*, 4(3), 124-137. [https://doi.org/10.21272/fmir.4\(3\).124-137.2020](https://doi.org/10.21272/fmir.4(3).124-137.2020).
 51. Yarovenko, H., Kuzmenko, O., & Stumpo M. (2020). DEA-analysis of the effectiveness of the country's information security system. *SocioEconomic Challenges*, 4(3), 142-153. [https://doi.org/10.21272/sec.4\(3\).142-153.2020](https://doi.org/10.21272/sec.4(3).142-153.2020).
 52. Yarovenko, H. (2020). Use of Kohonen maps to analyse the level of information security of countries taking into account their development. *Economic space*, 157, 118-124. <https://doi.org/10.32782/2224-6282/157-21> [In Ukrainian].
 53. Yarovenko, H. (2020). Canonical analysis of the relationship between information security and socio-economic and political development of the country. *Scientific Bulletin of Uzhhorod National University. Series: International Economic Relations and the World Economy*, 31, 160-167. <https://doi.org/10.32782/2413-9971/2020-31-26> [In Ukrainian].
 54. Yarovenko, H. (2020). Bibliometric analysis of information security research in the context of the national economy development. *International Scientific Journal "Internauka". Series: "Economic Sciences"*, 8 (40), 53-63. <https://doi.org/10.25313/2520-2294-2020-8-6245> [In Ukrainian].
 55. Yarovenko, H. (2020). The impact of the level of economic development of the country on the dependence of the use of personal information security and the consequences of cybercrime. *Bulletin of Sumy State University. Economics Series*, 1, 188-198. <https://doi.org/10.21272/1817-9215.2020.1-22> [In Ukrainian].
 56. Yarovenko, H., Dotsenko, T., & Kushnerov, O. Formation of an integrated threat index of the national economy. *Bulletin of Sumy State University. Economics Series*, 2, 16-28. <https://doi.org/10.21272/1817-9215.2020.2-2> [In Ukrainian].
 57. Yarovenko, H., & Kolotilina, O. (2020). Risk assessment of socio-economic and political development of Ukraine. *Scientific notes of Tavriya National University named after V.I. Vernadsky. Series: Economics and Management*, 31(70), 4, 151-159. <https://doi.org/10.32838/2523-4803/70-4-50> [In Ukrainian].
 58. Yarovenko, H., & Kovach, V. (2020). Prospects of application of blockchain technology in systems of cybersecurity of banks. *Entrepreneurship and innovation*, 12, 206-214. <https://doi.org/10.37320/2415-3583/12.36> [In Ukrainian].
 59. Kuzmenko, O., Yarovenko, H., Boyko, A., & Mynenko, S. (2020). Development of interfaces of the automated module of financial monitoring. *Investments: practice and experience*, 1, 11-18. <https://doi.org/10.32702/2306-6814.2020.1.11> [In Ukrainian].
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60. Kuzmenko, O., Boyko, A., Yarovenko, H., & Dotsenko, T. (2020). Scenarios for reforming the national system of financial monitoring. *Economy and state*, 1, 9–15. <https://doi.org/10.32702/2306-6806.2020.1.9> [In Ukrainian].
 61. Yarovenko, H. (2019). Trends in the national economy in terms of its digitalization. *Black Sea Economic Studies*, 39(1), 159-164. http://bses.in.ua/journals/2019/39_1_2019/31.pdf [In Ukrainian].
 62. Kuzmenko, O., Yarovenko, H., Levchenko, V., & Mynenko, S. (2019). Automation of the process of financial monitoring of legalization of funds obtained illegally. *Scientific notes of the National University "Ostroh Academy" series "Economics"*, 43, 162-171. [https://doi.org/10.25264/2311-5149-2019-15\(43\)-162-171](https://doi.org/10.25264/2311-5149-2019-15(43)-162-171) [In Ukrainian].
 63. Yarovenko, H. (2019). Analysis of macro indicators that characterize the level of information security components. *Bulletin of Khmelnytsky National University. Economic sciences*, 4(3), 47-54. Available at <http://journals.khnu.km.ua/vestnik/wp-content/uploads/2021/11/vknu-es-2019-n4-t3-272.pdf> [In Ukrainian].
 64. Kuzmenko, O., Boiko, A., Yarovenko, H., & Dotsenko T. (2019). Data mining-based assessment of the risk of using financial intermediaries for money laundering. *Efficient economy*, 10. <https://doi.org/10.32702/2307-2105-2019.10.6>.
 65. Kuzmenko, O., Yarovenko, H., Boiko, A., & Mynenko, S. (2019). Development of business models of financial monitoring processes of economic agents. *Efficient economy*, 12. Available at <http://www.economy.nayka.com.ua/?op=1&z=7470>. <https://doi.org/10.32702/2307-2105-2019.12.4>.
 66. Yarovenko, H. (2018). Development of an information model for detecting signs of fraud in banks. *Investments: practice and experience*, 14, 23-28. Available at http://www.invest-plan.com.ua/pdf/14_2018/7.pdf [In Ukrainian].
 67. Yarovenko, H. (2018). Analysis of types of threats and their consequences to ensure state information security. *Bulletin of Khmelnytsky National University. Economic sciences*, 6(3), 103-109. Available at <http://journals.khnu.km.ua/vestnik/wp-content/uploads/2021/11/vknu-es-2018-n6-t3-264.pdf> [In Ukrainian].
 68. Yarovenko, H., Skovronska, A., & Boyadzhyan, M. (2018). Modelling of detection of signs of cyber-threats in banks with the use of intellectual analysis. *Efficient economy*, 7. Available at http://www.economy.nayka.com.ua/pdf/7_2018/39.pdf [In Ukrainian].
 69. Yarovenko, H. (2018). System approach to the formalization of the "Information Security" definition. *Black Sea Economic Studies*, 34, 239-244. Available at http://bses.in.ua/journals/2018/34_2018/52.pdf [In Ukrainian].
 70. Yarovenko, H., & Boiadzhian, M. (2018). Analysis of the cyber fraud consequences in the banking system of Ukraine. *Economy and society*, 18, 836-843. Available at http://economyandsociety.in.ua/journals/18_ukr/116.pdf [In Ukrainian].
 71. Subeh, Musa A., & Yarovenko, H. (2017) Data Mining of operations with card accounts of bank clients. *Financial Markets, Institutions and Risks*, 1(4), 87-95. [https://doi.org/10.21272/fmir.1\(4\).87-95.2017](https://doi.org/10.21272/fmir.1(4).87-95.2017).

AWARDS AND HONORS

Congratulatory Letter awarded by the Deputy Vice-Rector for Quality, Universidad Carlos III de Madrid, for excellence in teaching *Basics of Information Technology*, 1st semester of 2024-2025 (March 11, 2025)

Congratulatory Letter awarded by the Deputy Vice-Rector for Quality, Universidad Carlos III de Madrid, for excellence in teaching *Advanced knowledge of Spreadsheets*, 2nd semester of 2023-

2024 (June 06, 2024)

Congratulatory Letter awarded by the Deputy Vice-Rector for Quality, Universidad Carlos III de Madrid, for excellence in teaching *Basics of Information Technology*, 1st semester of 2023-2024 (February 08, 2024)

Congratulatory Letter awarded by the Deputy Vice-Rector for Quality, Universidad Carlos III de Madrid, for excellence in teaching *Basics of Information Technology*, 1st semester of 2022-2023 (February 08, 2023)

Diploma, 3rd-degree winner of the university competition "*Best Scientific and Pedagogical Workers of Sumy State University, 2020-2021*", awarded by Sumy State University (2021)

Diploma, 2nd-degree winner of the student-voted competition "*Best Teacher Through the Eyes of Students*", 2019-2020 academic year, awarded by Sumy State University (2020)

Diploma, 2nd-degree winner of the student-voted competition "*Best Teacher Through the Eyes of Students*", 2018-2019 academic year, awarded by Sumy State University (2019)

Mayor's Diploma for *significant contribution to the education and upbringing of the younger generation, dedicated work, and on the occasion of the 15th anniversary of the Ukrainian Academy of Banking of the National Bank of Ukraine*, awarded by the Sumy City Council, Sumy Region (2011)

RESEARCH GRANTS AND EXPERIENCE

Research Grants and Projects

- 2024 – 2026** **Research grants received from the General State Budget Fund of Ukraine**
Cybersecurity and digital transformations of the country's wartime economy: the fight against cybercrime, corruption and the shadow sector (registration number: 0124U000544)
Responsibility Level: Principal Investigator
- 2021 – 2023** **Research grants received from the General State Budget Fund of Ukraine**
National Security through the Convergence of Financial Monitoring and Cybersecurity Systems: Intelligent Modelling of Financial Market Regulation Mechanisms (registration number: 0121U109559)
Responsibility Level: Principal Investigator
- 2021 – 2023** **Research grants received from the General State Budget Fund of Ukraine**
Convergence of Economic and Educational Transformations in the Digital Society: Modelling the Impact on Regional and National Security (registration number: 0121U109553)
Responsibility Level: Researcher
- 2022** **Business contract**
Development of an algorithm for predicting cyber-fraudulent attacks on the company's computer systems, network and cloud infrastructure (Individual Entrepreneur Ignatenko Denis Ihorovych (Ukraine), contract № 53.16-2022.SP/01, from 07.11.2022)
Responsibility Level: Principal Investigator
- 2022** **Research grants received from the General State Budget Fund of Ukraine**
Cooperation "business - education - science": institutional and economic models of the transfer of innovations for national security and sustainable development (registration number: 0122U000772)
Responsibility Level: Researcher
- 2021** **Research grants received from the National Research Fund of Ukraine**
Optimization and automation of financial monitoring processes to increase information security in Ukraine (registration number: 0120U104810)

Responsibility Level: Researcher

2021 Research grant received at the expense of basic funding from the Ministry of Science and Education of Ukraine

Economic-mathematical modelling and forecasting, development of methodological and methodological foundations for the creation of a roadmap for reforming the health care system in Ukraine, taking into account behavioural, social, economic and legal determinants (Contract BF/24-2021 № 434 from 16.04.2021)

Responsibility Level: Researcher

2021 Business contract

Development of Algorithms for Monitoring and Cybersecurity Systems in Terms of Customer Identification, Transactions, Response to Attempted Crime (Individual Entrepreneur Kushnerev (Ukraine), contract № 53.16-2021.SP/03, from 30.06.2021)

Responsibility Level: Principal Investigator

2019 Grant of the President of Ukraine to Doctor of Sciences for Scientific Research under the Competitive Project

Development of a Prototype of an Automated Module for Financial Monitoring of Economic Agents to Combat Money Laundering (registration number: 0119U103189)

Responsibility Level: Lead Researcher

2019 Business contract

Development of a Methodological Approach to the Creation of an Information System for Monitoring On-Line Settlements of the Publishing House with the Bank to Prevent Internal and External Fraud (Publishing House "Yaroslavna", contract № 56.18 - 2019.SP/01, from 18.11.2019)

Responsibility Level: Lead Researcher

2018 – 2020 Research grants received from the General State Budget Fund of Ukraine

Cybersecurity in the Fight against Banking Fraud: Protection of Consumers of Financial Services and Growth of Financial and Economic Security of Ukraine (registration number: 0118U003574)

Responsibility Level: Lead Researcher

2016 – 2019 Research project

Modern Information Technologies in Socio-Economic Systems (registration number: 0116U000930)

Responsibility Level: Principal Investigator

2016 – 2019 Research project

Modelling of Sustainable Development of Complex Socio-Economic Systems (registration number: 0116U000929)

Responsibility Level: Researcher

2010 Research project financed by the National Bank of Ukraine

Automated Analysis of Cash Operations of Banks on Compliance with the Legislation of Ukraine, which Regulates Relations in the Field of Prevention and Counteraction to Legalization (Laundering) of Proceeds from Crime (Customer – Department for Prevention of the Use of the Banking System for Legalization of Criminal Proceeds and Terrorist Financing of the National Bank of Ukraine)

Responsibility Level: Researcher

Research Experience

2021-01 – present University: Sumy State University, Sumy, Ukraine

Research department: Scientific and Educational Centre of Business Analytics

Position: Leading Researcher, Economic Cybernetics Department

2018-01 – University: Sumy State University, Sumy, Ukraine

2020-12 Research department: Scientific and Educational Centre of Business Analytics

Position: Senior Research Fellow

TEACHING EXPERIENCE

Teaching Experience in Spain:

- Basics of Information Technology (Bachelor in Management and Technology, teaching in English)
- Advanced Knowledge of Spreadsheets (Bachelor in Business Administration, teaching in English)
- Intermediate Knowledge of Spreadsheets (Bachelor in Film, Television and Media Studies, teaching in English)

Teaching Experience in Ukraine:

- Predictive Economic Analytics (PhD in Economics, teaching in Ukrainian)
- Methods of system analysis and optimisation of information systems in economics (PhD in Economics, teaching in Ukrainian)
- Business Analytics and Corporate Architecture (Master in Economic Cybernetics, teaching in English)
- Corporate Information Systems (Master in Economic Cybernetics, teaching in Ukrainian)
- Efficiency of Information Systems (Master in Economic Cybernetics, teaching in Ukrainian)
- Introduction to Business Analytics (Bachelor in Business Analytics, teaching in English)
- Forecasting Socio-Economic Processes (Bachelor in Economic Cybernetics, Bachelor in Business Analytics, teaching in English, Ukrainian)
- Business Process Modelling (Bachelor in Economic Cybernetics, Bachelor in Business Analytics, teaching in English)
- Econometrics (Bachelor in Finance, Bachelor in Banking, Bachelor in Accounting and Auditing, teaching in Ukrainian)
- Modelling in Economics (Bachelor in Business Analytics, teaching in Ukrainian)
- Information Systems and Technologies in Management (Bachelor in Economic Cybernetics, teaching in Ukrainian)
- Information Systems in Economics (Bachelor in Economic Cybernetics, Bachelor in Business Analytics, teaching in English, Ukrainian)

Participant of the Jean Monnet project, module "EU Practices to protect the financial system against cyber threats" (2022-2025) financed by ErasmusEразмуч+ (101085364-EU_PITCH-ERASMUS-JMO-2022-HEI-TCH-RSCH)

- Machine learning to ensure cyber security in the field of financial services (Bachelor in Economic Cybernetics and Business Analytics, teaching in Ukrainian)
- EU Cybersecurity Policies and Practices in the financial system (Bachelor in Economic Cybernetics and Business Analytics, teaching in Ukrainian)

Supervisor:

- PhD theses (educational program in Economics)
- Master's theses (educational program in Economic Cybernetics)
- Bachelor's theses (educational program in Economic Cybernetics; Business Analytics)

LANGUAGE AND COMPUTER SKILLS

Language skills: English – Advanced; Ukrainian – Native; Russian – Native; Spanish – Elementary

Computer skills: Python, SAS, EViews, Stata, Statistica, Vensim, Deductor Academics, Bizagi Studio, AllFusion Process Modeler, MS Excel and others products of Microsoft, SAP Business One, Galaxy, 1C: Company 7.7, 8.1, 8.2, 8.3, Parus, Virtual Machines.

ADDITIONAL ACTIVITIES

Member of the editorial board:

2023 - present: Business Ethics and Leadership (BEL), Sumy, UA
<https://armgpublishing.com/journals/bel/editorial-board/>

Scientific journal reviewer:

2022 – 2023: Financial Markets, Institutions and Risks (FMIR), Sumy, UA

Scientific consulting of business:

2021: International auditing company HLB UKRAINE: development and implementation of proposals for composite indicators of economic, political, and social development, as well as the digital capability and cybersecurity of the country within a four-pole barycentric model.

2020: Sumy Branch of JSC Oschadbank № 10018/0172: development and implementation of proposals for gravitational modelling of the level of attractiveness of countries for the legalisation of criminal proceeds and cyber fraud.

2020: Public Organization "Educational and Human Rights Coordination Centre": development and implementation of proposals for methods of individual cyber defence.

2019: European Consulting Service LLC: development and implementation of proposals for assessing the risks of information loss.

2019: Sumy Branch of JSC PRAVEX BANK: development of proposals for optimising business processes while ensuring information security.

2018: Sumy Branch of JSC OTP Bank: development of proposals to create a prototype of an automated module for detecting fraudulent transactions, which performs verification based on the analysis of payments.

2018: Sumy Branch of JSC Alfa-Bank: development of proposals for data mining to determine the likelihood of cyber fraud in banking transactions through mobile and Internet banking.

International internship:

2025: Honorary Fellow at the Mathematical Sciences of the University of Liverpool (UK).

2023: International Summer School (Online) of the University of Liverpool (UK). Topic: “Sustainable Development Goals (Sdgs): Global Challenges, Local Action, Achieved Outcomes”.

2022: International Summer School (Online) of the University of Liverpool (UK). Topic: “Fake News, Fake Science and Critical Thinking: What should I believe?”.

2021: International internship under the program of the Meeting Foundation (Poland), the Centre for Career Development of the NGO Sobornist (Ukraine) and the Luhansk Regional Institute of Postgraduate Pedagogical Education (Ukraine). Topic: “Fundraising and organisation of project activities in educational institutions: the European experience”. Case: “Improving the system of combating cyber fraud in the financial sector”.

2021: Center for American Studies. Faculty of Law and Administration. Topic: “Academic Research in English Made Painless”

2021: International internship under the program of the Jesuit University Ignatius in Krakow. Topic: “Polish for primary and secondary level”.

2021: Internship under the program of the Czech Republic Development Cooperation. Development project: “Interuniversity Cooperation as a Tool for Enhancement of Quality of Selected Universities in Ukraine”. Topic: “Designing a University Business Incubator”.

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- 2020:** Internship under the program of the Czech Republic Development Cooperation. Development project: “Strengthening scientific capacities and cooperation of Ukrainian universities in AgriSciences”. Topics: “Multicriteria Decision Analysis”, “Scientific Writing and Publishing”, “Socio-economic Research”, “System Dynamics and Causal Loop Diagram”.
- 2018:** Internship under the program of the Theological Academy of S. Vyshynsky University and the Polish-Ukrainian Foundation “Institute of International Academic and Scientific Cooperation”. Topic: “Academic integrity”.
- 2017:** Internship under the program of the National Centre for Distance Education, Centre for Higher Education Research (Prague, Czech Republic) “Improving the capacity building process in the field of quality of education and research at SNAU and SSU”.

Trainings:

- 2025:** Codecademy. Topic: Machine Learning: K-Nearest Neighbors Course
- 2025:** Codecademy. Topic: Machine Learning: Logistic Regression Course
- 2025:** Codecademy. Topic: Machine Learning: Introduction with Regression Course
- 2024:** Datacamp. Topic: Introduction to Python
- 2024:** Datacamp. Topic: Intermediate Python
- 2024:** Datacamp. Topic: Data Manipulation with Pandas
- 2024:** Datacamp. Topic: Joining Data with Pandas
- 2024:** Datacamp. Topic: Introduction to Statistics in Python
- 2024:** Datacamp. Topic: Introduction to Data Visualization with Matplotlib
- 2024:** Datacamp. Topic: Introduction to Data Visualization with Seaborn
- 2024:** Datacamp. Topic: Introduction to Functions in Python
- 2024:** Datacamp. Topic: Python Toolbox
- 2024:** Datacamp. Topic: Exploratory Data Analysis in Python
- 2024:** Datacamp. Topic: Working with Categorical Data in Python
- 2024:** Datacamp. Topic: Data Communication Concepts
- 2023:** Coursera / Johns Hopkins University. Topic: R Programming
- 2023:** Coursera / Johns Hopkins University. Topic: The Data Scientist’s Toolbox

Member of public organizations:

- 2025 – present:** Member of the International Educators and Scholars Foundation (IESF), Kyiv, Ukraine
- 2021 – present:** Member of the European Marketing and Management Association, EU
- 2021 – present:** Member of the organising committee of the Sumy regional e-sports tournament CYBER SUMDU [CS: GO] (with the support of the e-sports federation of Ukraine), Sumy, Ukraine
- 2021:** Member of the All-Ukrainian public organisation "Ukrainian Association of Information Technology Specialists", Kharkiv, Ukraine

Certificates of copyright registration for intellectual property objects:

1. Yarovenko, H., Lyeonov, S., & Reshetnyak, Ya. (2024). Triple Threat: The Impact of Corruption, Money Laundering, and Cyber Threats on the Business Environment (№132200, 19.12.2024)
2. Yarovenko, H., & Vasilyeva, T. (2024). Illegal practices: experience of developed countries (№131953, 09.12.2024)
3. Yarovenko, H., & Lyeonov, S. (2024). A secure cyber environment as a determinant of progress towards achieving ESG compliance: a global perspective (№131954, 09.12.2024)
4. Lyeonov, S., Vasilyeva, T., & Yarovenko, H. (2024). Methodological principles for analyzing socio-economic profiles of countries that are victims of cybercrime (№123736, 12.02.2024).
5. Yarovenko, H., Sidelnik, N., Boyko, A., & Vasilyeva, T. (2024). Company cybersecurity system: assessment, risks and expectations (№6978, 01.02.2024).
6. Yarovenko, H., & Lyeonov, S. (2023). Cybercrime forecasting for effective strategic management of multinational companies (№121414, 01.12.2023)

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7. Yarovenko, H., & Vasilyeva, T. (2023). Socio-economic profiles of countries - victims of cybercrime (№121415, 01.12.2023)
 8. Yarovenko, H., & Lyeonov, S. (2023). Are Internet users behaving responsibly when it comes to protecting themselves from cybercrime? (№121416, 01.12.2023)
 9. Yarovenko, H. M., & Kuzmenko, O. V. (2023). Assessment of the maturity of the current system of combating financial and cyber fraud (№115675, 10.01.2023)
 10. Kuzmenko, O. V., Yarovenko, H. M., & Vasilyeva T. A. (2023). Cybercrime: forecasting information trends (№115919, 19.01.2023)
 11. Boyko, A. O., Kuzmenko, O. V., Leonov, S. V., Koybichuk, V. V., & Yarovenko, H. M. (2022). Assessment of the national cyber security effectiveness (№114785, 14.09.2022)
 12. Leonov, S. V., Yarovenko, H. M., & Kolotilina, O. V. (2021). Country health profile: definition of social, economic, behavioural determinants and determinants of health care (№108688, 18.10.2021)
 13. Yarovenko, H. M., & Kuzmenko, O. V. (2021). Modelling "information bubbles" in the global information space (№109072, 03.11.2021)
 14. Yarovenko, H. M., & Vasilyeva, T. A. (2021). Balanced determinants of countries' development: barycentric model (№109664, 22.11.2021)
 15. Yarovenko, H. M. (2020). Strategy for determining the rating of countries by the level of cybersecurity (№100932, 27.11.2020)
 16. Yarovenko, H. M., & Leonov, S. V. (2020). Methods for assessing the risks associated with the loss of information and knowledge (№101075, 08.12.2020)
 17. Kuzmenko, O. V., Boyko, A. O., Yarovenko, H. M., Dotsenko, T. V., & Mynenko, S. V. (2019). Assessment of the risk of financial institutions using funds obtained illegally, using the principles of data mining (№ 94093, 19.11.2019)
 18. Leonov, S. V., Kuzmenko, O. V., Yarovenko, H. M., & Dotsenko, T. V. (2019). Innovative approach to improving the level of cybersecurity of transactions through the fight against money laundering (№ 94423, 04.12.2019)
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