



Name	Olena Cherniak
Position, Department/Faculty	Associate Professor, Department of Mechatronics and Electrical Engineering/Faculty of Aircraft Control Systems
Academic Degree, Academic Title	PhD Technical Sciences, Associate professor
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Google Scholar:	https://scholar.google.com.ua/citations?user=1vQ2SY0AAAAJ&hl=uk
ResearchGate:	https://www.researchgate.net/profile/Olena-Cherniak

EDUCATION:

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

National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine

MsD. Automation, Computer- Integrated Technologies and Robotics, 2025

National Technical University «Kharkiv Polytechnic Institute», Kharkiv, Ukraine

MsD. Electrical energetics, electrical engineering and electromechanics, 2024

Ukrainian Engineering Pedagogical Academy, Kharkiv, Ukraine

MsD. Higher education pedagogy, 2013

MsD. Professional education. Health and safety, 2011

Postgraduate/Doctoral studies:

Ukrainian Engineering and Pedagogical Academy, Kharkiv, Ukraine

PhD Technical Sciences, Standardisation, certification and metrological support, 2020

Additional training, certification programs:

Advanced training at the Kharkov Aviation Institute (180 hours), 2025. Certificate PK 02066769/001111-25.

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

2024-present time Associate Professor. Department of mechatronics and electrical engineering
National Aerospace University "Kharkiv Aviation Institute", Kharkiv, Ukraine

2023-2024 Associate Professor. Department of Automation, Metrology and Energy Efficient Technologies. Ukrainian Engineering Pedagogics Academy, Kharkiv, Ukraine

2021-2023 Senior Lecturer. Department of Labor Protection, Standardization and Certification.
Ukrainian Engineering Pedagogics Academy, Kharkiv, Ukraine

2011-2021 Assistant. Department of Labor Protection, Standardization and Certification . Ukrainian
Engineering Pedagogics Academy, Kharkiv, Ukraine

Teaching Experience:

14 years

RESEARCH ACTIVITIES:

Main Research Areas:

Qualimetry, quality management, quantitative assessment, risk analysis, risk evaluation, risk management, occupational safety, sustainable development, Industry 4.0.

Number of Publications (Scopus, WoS, others):

more than 30 of which: Scopus – 9, WoS – 3.

Monographs, Textbooks:

Cherniak O. M., Trishch R. M. Improvement of qualimetric methods for assessing occupational safety and health in production facilities: monograph. / O. M. Cherniak, R. M. Trishch; Ukrainian Academy of Engineering Education. – Kharkiv, 2020. – 153 p. ISBN 978-617-7920-00-6

Participation in Scientific Conferences:

1. Rybalchenko T.P., Cherniak O.M. Occupational Safety as a Key Aspect of the Inclusive Economy and Corporate Social Responsibility. Management of Economic Environment Development under Global Transformations: Proceedings of the 3rd International Scientific and Practical Conference (Kharkiv, February 6–7, 2025) [Electronic resource]. – Kharkiv: V.N. Karazin Kharkiv National University, 2025. pp. 305–306.
2. Cherniak O., Rybalchenko T., Bosenko D., Bosenko Y., Hurtovyi I. Application of Information Technologies for Quantitative Assessment of Occupational Safety at the Enterprise. 2nd International Scientific and Practical Conference "Information and Measuring Technologies IVT- 2024": Proceedings, November 13–14, 2024 [Electronic resource]. – Lviv: Lviv Polytechnic Publishing House, 2024. pp. 164–165.
3. Cherniak O.M., Fatieieva L.Y., Rybalchenko T.P. Risk Assessment in Production Using Qualimetric Methods. Management of Socio-Economic Systems Development: Proceedings of the 8th International Scientific and Practical Conference (Kharkiv, March 21–22, 2024). – Kharkiv: DBTU, Part 2, 2024. pp. 270–273.
4. Cherniak O.M., Bagaiev I.O., Teslov O.A., Krutko V.O. Application of an automated system for assessing the quality of qualimetry objects. Information technologies: theory and practice. I (VII) International scientific and practical conference of higher education students and young scientists 'Information technologies: theory and practice'. Abstracts of reports (Dnipro, 20–22 March 2024). Ministry of Education and Science of Ukraine, National Technical University 'Dnipro Polytechnic'. – Dnipro: Svidler A.L., 2024. pp. 401–402.



5. Cherniak O. M., Sorokolat N. A. Application of the error function for assessing the quality of objects of different nature. Quality, standardization, and metrological support: materials of the II international scientific and practical conference (Kharkiv, March 14-15, 2023). Kharkiv, 2023. P.19-20.
6. Cherniak O. M., Sorokolat N. A. Application of Quality, standardization, and metrological support: materials from the II International Scientific and Practical Conference (Kharkiv, March 14-15, 2023). Kharkiv, 2023. P. 74.
7. Trishch R.M., Cherniak O.M. Quality assessment of the occupational safety management system processes according to the requirements of the iso 45001:2018 international standard. Quality, standardization, control: theory and practice: Materials of the 23rd International Scientific and Practical Conference, September 27–28, 2023. – Kyiv: ATM Ukraine, 2023. – P. 97–100.
8. Cherniak O. M., Vorobiov B. V. Application of neural networks for evaluating quality management systems. Quality, standardization, and metrological support: materials of the II International Scientific and Practical Conference (Kharkiv, March 14-15, 2023). Kharkiv, 2023. P. 74. Quality, standardization, and metrological support: materials of the II International Scientific and Practical Conference (Kharkiv, March 14-15, 2023). Kharkiv, 2023. P. 45.
9. Cherniak O. M., Sorokolat N. A. Algorithms for monitoring, measuring, and evaluating occupational safety management system processes. Science. Innovation. Quality: materials from the national scientific and practical forum (Kharkiv, August 9–10, 2022). Kharkiv, 2022. Pp. 19-20.

TEACHING ACTIVITIES:

Courses Taught:

Introduction to the profession
Quality management systems
Computer-integrated manufacturing technologies
Intelligent control of electricity generation, distribution and consumption processes
Energy management and energy audit

Author Courses, Academic Programs:

Author Courses «Internal corporate culture as the basis for an organisation's competitiveness»

Methodological Materials, Textbooks:

1. Fundamentals of occupational health and safety: methodological guidelines for organizing and planning independent work for higher education students pursuing a junior bachelor's or bachelor's degree in engineering and engineering-pedagogical specialties / Ukrainian Academy of Engineering and Pedagogy; compiled by O. M. Cherniak. – Kharkiv: UIPA, 2021. – 36 p.
2. Fundamentals of occupational health and safety: lecture notes for higher education students pursuing a junior bachelor's or bachelor's degree in engineering and engineering-pedagogical specialties in full-time and part-time programs / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2021. – 144 p.
3. Cherniak O. M. System analysis and decision-making methods in conditions of uncertainty: lecture notes for students pursuing a second (master's) degree in full-time education in the specialty 175 Information and Measurement Technology / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2023. – 72 p.



4. Cherniak, O.M. System analysis and decision-making methods in conditions of uncertainty: methodological guidelines for conducting practical classes for students of higher education of the second (master's) level of full-time education in the specialty 175 Information and measurement technology / O.M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2024. – 50 p.
5. Cherniak O. M. Metrological support of information and measurement systems: lecture notes for second-level (master's) full-time higher education students majoring in 175 Information and Measurement Technology / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2024. – 72 p.
6. Cherniak O.M. Metrological support of production: methodological guidelines for conducting practical classes for students of higher education of the second (master's) level of full-time education in the specialty 175 Information and measurement technology / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2024. – 52 p.
7. Cherniak, O.M. Modern software methods for assessing the accuracy of measuring instruments: lecture notes for second-level (master's) full-time higher education students majoring in 175 Information and Measurement Technology / O.M. Chernyak; Ukrainian Academy of Engineering Education – Kharkiv: UIPA, 2024. – 44 p.
8. Cherniak O. M. Modern software methods for assessing the accuracy of measuring instruments: methodological guidelines for conducting practical classes for students of higher education of the second (master's) level of full-time education in the specialty 175 Information and Measurement Technology / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2024. – 16 p.
9. Cherniak O. M. Risk-oriented assessment and forecasting in the field: lecture notes for full-time second-level (master's) higher education students majoring in 175 Information and Measurement Technology / O. M. Cherniak; Ukrainian Academy of Engineering and Pedagogy. – Kharkiv: UIPA, 2024. – 56 p.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Scholarship holder of the Cabinet of Ministers of Ukraine for young scientists (2022-2024).

Winner of the district stage of the competition "Young Person of the Year" (2020, 2021, 2022, Kharkiv) in the nomination "Scientific Activity".

Winner of the city competition "Young Person of the Year" (2022, Kharkiv) in the nomination "Scientific Activity".

Membership in Professional Associations:

Member of the Public Organization "Association of STEM Scientists and Inventors"



SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. Cherniak O., Trishch R., Kim N., Ratajczak S. Quantitative assessment of working conditions in the workplace. *Engineering Management in Production and Services*. 2020. №12 (2). P. 99-106. doi: 10.2478/emj-2020-0014. (Scopus)
2. Trishch R., Cherniak O., Kupriyanov O., Luniachek V., Tsykhanovska I. Methodology for multi-criteria assessment of working conditions as an object of qualimetry. *Engineering Management in Production and Services*. 2021. №13 (2). P. 107–114. DOI: <https://doi.org/10.2478/emj-2021-0016>. (Scopus)
3. O. Cherniak, R. Trishch, R. Ginevičius, O. Nechuiviter and V. Burdeina, "Methodology for Assessing the Processes of the Occupational Safety Management System Using Functional Dependencies", *Integrated Computer Technologies in Mechanical Engineering - 2023. ICTM 2023. Lecture Notes in Networks and Systems*, vol 996, Springer, Cham, pp. 3-13, 2024, DOI: 10.1007/978-3-031-60549-9_1. (Scopus)
4. E. Khomiak, V. Burdeina, O. Cherniak, Olesia, N. and T. Bubela, "Improving the Method of Quality Control of the Fuel Element Shell in Order to Improve the Safety of a Nuclear Reactor", *Integrated Computer Technologies in Mechanical Engineering - 2023. ICTM 2023. Lecture Notes in Networks and Systems*, vol. 1008, Springer, Cham, pp. 351-360, 2024, DOI: 10.1007/978-3-031-61415-6_30. (Scopus)
5. Dyadyura, K., Slyuz, A., Vysotsky, I.Y., Bubela, T., Cherniak, O. (2024). Decision Support Algorithm at the Life Cycle Stages of Medical Devices Based on the Application of Markov Process. In: Nechyporuk, M., Pavlikov, V., Krytskyi, D. (eds) *Integrated Computer Technologies in Mechanical Engineering - 2023. ICTM 2023. Lecture Notes in Networks and Systems*, vol 996. Springer, Cham. pp 87–97. https://doi.org/10.1007/978-3-031-60549-9_7. (Scopus)
6. R. Trishch, O. Cherniak, D. Zdenek, and V. Petraskevicius, "Assessment of the occupational health and safety management system by qualimetric methods", *Engineering Management in Production and Services*, vol.16, no. 2, pp. 118-127, 2024, DOI: 10.2478/emj-2024-0017. (Scopus)
7. Khomiak, E., Trishch, R., Zabolotnyi, O., Cherniak, O., Lutai, L., Katrich, O. (2024). Automated Mode of Improvement of the Quality Control System for Nuclear Reactor Fuel Element Shell Tightness. In: Faure, E., et al. *Information Technology for Education, Science, and Technics. ITEST 2024. Lecture Notes on Data Engineering and Communications Technologies*, vol 221. P. 79-91. Springer, Cham. https://doi.org/10.1007/978-3-031-71801-4_7. (Scopus)
8. P. Hovorov, A. Kindinova, R. Trishch, E. Khomiak, O. Cherniak and K. Oleh, "Management of Power Grid Modes in Conditions of High Heterogeneity," 2024 IEEE 5th KhPI Week on Advanced Technology (KhPIWeek), Kharkiv, Ukraine, 2024, pp. 1-5, doi: 10.1109/KhPIWeek61434.2024.10878032. (Scopus)

9. Kochuk, S., Trishch, R., Nikitin, A., Zhezhera, I., Cherniak, O., Khomiak, E. (2025). Algorithmic Provision of Contours Guidance of Unmanned Systems. In: Lytvynov, O., Pavlikov, V., Krytskyi, D. (eds) Integrated Computer Technologies in Mechanical Engineering - 2024. ICTM 2024. Lecture Notes in Networks and Systems, vol 1473. Springer, Cham. pp 16–29. https://doi.org/10.1007/978-3-031-94845-9_2. (Scopus)

Books, Chapters in Collective Monographs:

Cherniak O. M., Fateeva L. Yu., Teslov O. A. Application of qualimetric methods for assessing the quality of processes in the occupational safety management system. Quality of Life in Global and Local Contexts: Values, Innovation, and Multidisciplinary Dimensions: Monograph. Opole: The Academy of Applied Sciences – Academy of Management and Administration in Opole, 2023; P. 155-159

Links to Citation Database Profiles:

[Google Scholar](#)

[ORCID](#)

[Research Gate](#)

[Scopus](#)

[Web of Science](#)

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian – Fluent

English - B2

IT Skills:

Microsoft Office / Google tools / Canva / AI / Adobe Photoshop

Develop websites for departments