



Name	Yurii Lomonosov
Position, Department/Faculty	Associate Professor of the Department of Radioelectronic and Biomedical Computerized Means and Technologies (502) / Faculty of Radio Electronics, Computer Systems and Infocommunications
Academic Degree, Academic Title	Candidate of Technical Sciences, Associate Professor
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ResearchGate:	

EDUCATION:

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

Kharkiv Higher Military Aviation School of Radioelectronics	
1987	specialty «Command tactical, automated control systems», control officer

Postgraduate/Doctoral studies:

Military Radio-Technical Academy	
1994	Candidate of Technical Sciences, specialty 05.12.04 – radar and radio navigation

Additional training, certification programs: -

WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Kharkiv Military University	
1994-1998	held the positions of Assistant and Lecturer at the Department of Receiving and Transmitting Devices
Yaroslav Mudryi National Law University	
1999-2015	held the positions of Assistant and Associate professor of the Department of Informatics and Computer Engineering.
2015-2022	Associate Professor of the Department of Criminology
National Aerospace University «Kharkiv Aviation Institute»	
2022 – present	Associate Professor of the Department of Radioelectronic and Biomedical Computerized Means and Technologies

Teaching Experience:

1994-1998	Kharkiv Military University
1999-2022	Yaroslav Mudryi National Law University
2022 – present	National Aerospace University «Kharkiv Aviation Institute»



Experience in International or National Projects:

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RESEARCH ACTIVITIES:

Main Research Areas:

Digital image processing and analysis.

Number of Publications (Scopus, WoS, others):

Over 20 scientific publications, including indexed articles in Scopus and Web of Science databases.

Monographs, Textbooks:

1. Educational and practical manual on the discipline «Fundamentals of Informatics and Computer Engineering». – Kharkiv, NGAU named after Ya. Mudry, 2001 – 42 p.
2. Legal information and computer technologies in legal activities. Textbook: edited by V.G. Ivanova – Kh.; Law, 2010. 240 p.

Participation in Scientific Conferences:

Participation in 67 scientific conferences. Over the past 5 years:

1. Lomonosov Yu.V. Text image compression algorithm based on fuzzy classification of vertical linear elements. International scientific innovations in human life. Proceedings of the 4th International Scientific and Practical Conference. Cognum Publishing House. Manchester, Great Britain. 2021. P. 171-181.
2. Lomonosov Yu.V. Problems of digital transformation and automatic recognition of text images. Innovations and prospects of world science. Proceedings of the 3rd International Scientific and Practical Conference. Perfect Publishing. Vancouver, Canada. 2021. P. 284-292.
3. Lomonosov Yu.V. Probabilistic model of text image processing. Topical issues of modern science, society and education. Proceedings of the 3rd International scientific and practical conference. SP C —Sci-conf.com.ua. Kharkiv, Ukraine. 2021. Pp.288-295
4. Lomonosov Yu.V., Plisko O.O., Nezyamov M.O. Multiple filtering in wavelet analysis of medical images. Modern problems of science, education and society. Materials of the 2nd International Scientific and Practical Conference. Scientific and Technological Center "Sci-conf.com.ua". Kyiv, Ukraine. 2023. P. 346-351.
5. Lomonosov Yu.V., Nemchenko V.V., Kasyanova Yu.V., Skoropad A.O.. Extraction of contours in wavelet analysis of medical images. Scientific progress: innovations, achievements and prospects. Materials of the 8th International Scientific and Practical Conference. MDPC Publishing. Munich, Germany. 2023. P. 138-144.
6. Lomonosov Yu.V. Multi-scale processing of biomedical images. Current status and prospects of biomedical engineering: materials of the International scientific and practical conference dedicated to the 125th anniversary of the National Technical University of Ukraine «Igor Sikorsky Kyiv Polytechnic Institute» – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2023. pp. 136-138. – 239 p.
7. Lomonosov Yu.V. Automatic classification of biomedical images // Innovative development of science, technology and education. Materials of the 5th International scientific and practical conference. Perfect Publishing. Vancouver, Canada. 2024. pp. 181-189. – 610 p.
8. Lomonosov Yu.V. Dispersion criterion for estimating linear transformations in the analysis of biomedical images // Scientific achievements of modern society. Materials of the 6th International scientific and practical conference. Cognum Publishing House. London, Great Britain. 2025. P. 242-251. - 898 p.

TEACHING ACTIVITIES:



**Courses Taught:**

«Image acquisition and processing methods»; «Medical imaging methods»; «Pattern recognition in medicine»; «Analysis of biomedical images».

Author Courses, Academic Programs:

«Image acquisition and processing methods»; «Medical imaging methods»; «Pattern recognition in medicine»; «Analysis of biomedical images».

Methodological Materials, Textbooks:

Methodological materials, textbooks – 24. Over the past 5 years:

1. Methodological instructions for practical classes in the discipline “Methods of image acquisition and processing”/ – Kh.: M. E. Zhukovsky National Aerospace University “Kharkiv Aviation Institute”. 2022. – 57 p.

2. Methodological instructions for practical classes in the discipline “Technologies of medical image protection”/ – Kh.: M. E. Zhukovsky National Aerospace University “Kharkiv Aviation Institute”. 2024. – 104 p.

GRANTS AND PROJECTS:**Participation in International and National Projects:**

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Grants, Scholarships, Academic Mobility Programs:

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PROFESSIONAL ACHIEVEMENTS AND AWARDS:**Honorary Titles:**

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Distinctions, Awards, Prizes:

Honorary title of Laureate of the Yaroslav the Wise Prize, awarded by the National Academy of Legal Sciences of Ukraine, the Yaroslav the Wise National University "Law Academy of Ukraine".

Membership in Professional Associations:

Member of the NGO All-Ukrainian Association of Biomedical Engineers and Technologists.

INTERNATIONAL ACTIVITIES:**Internships:**

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Cooperation with Foreign Universities:

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Teaching/Lecturing Abroad:

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SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

1. Compression of Images on the Basis of Automatic and Indistinct Classification of Fragments. Journal of Automation and information sciences. – Begell House, Inc. 50 Gross Highway, Redding, Connecticut 06896. – Volume 41. – Issue 1. – 2009. – pp 27-39, p. 81.
2. Compression of Text Image Based on Characters and Their Classification. Journal of Automation and Information Sciences. – Begell House, Inc. 50 Gross Highway, Redding, Connecticut 06896. – Volume 42. – Issue 11. – 2010. – pp 46-57, p. 81.
3. Text Image Compression Based on the Formation and Classification of Vertical Elements of a Row in the Graphical Dictionary of Symbol Data. Journal of Automation and Information Sciences. – Begell House, Inc. 50 Gross Highway, Redding, Connecticut 06896. – Volume 43. – Issue 10. – 2011. – pp 29-41, p. 81.
4. Image text compression based on statistical analysis and classification of vertical line elements. East European Journal of Advanced Technologies. - Kharkov. - 2014.- No. 4/2 (70). - pp. 4-15.

Books, Chapters in Collective Monographs:

1. Information technologies and information security in information and communication systems: Monograph / edited by V. S. Ponomarenko. – Kh.: Publishing house of OOO “Shchedra Sadyba Plus”, 2015. – 486 p. – pp. 449-462.
2. Information technologies in management, education, science and industry: Monograph / edited by V. S. Ponomarenko. – Kh.: Publisher Rozhko S. G., 2016. – 566 p. – pp. 536 – 551.
3. Information technologies: problems and prospects: monograph / for the past. ed. V. S. Ponomarenka. – H.: View. Rozhko S. G., 2017. – 447 p. - With. 418 – 433.
4. Information technologies: current state and prospects: monograph ed. by V. S. Ponomarenko. – Kh.: LLC. “DISA PLUS”, 2018. – 462 p. – p. 362 – 377.

Links to Citation Database Profiles:

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ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian,
English – intermediate level.

IT Skills:

Working in MatLab and MatCad.

Social and Community Activities:

Curator of full-time academic groups.

