



Name	Andrii Porvan
Position, Department/Faculty	Associate Professor of Department of Radio Electronic and Biomedical Computerized Means and Technologies (502) / Faculty of Radio Electronics, Computer Systems and Infocommunications
Academic Degree, Academic Title	Candidate of Technical Sciences (PhD)
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Scopus Author ID:	ID: 57188710183
Web of Science ResearcherID:	ResearcherID: K-4915-2017
ORCID iD:	ID: 0000-0001-9727-0995
Google Scholar:	https://scholar.google.com.ua/citations?hl=ru&user=1y1S2wcAAAAJ
ResearchGate:	https://www.researchgate.net/home/network?ev=nav_home&_tp=eyJjb250ZXh0Ijp7InBhZ2UiOiJwcm9maWxliiwicHJldmVdXNQYWdlIjpudWxsLjw3NpdGlvbil6Imdsb2JhbEhYWRiciJ9fQ

EDUCATION:

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

Kharkiv National University of Radio Electronics, Biotechnical and medical devices and systems, 2001.

Simon Kuznets Kharkiv National University of Economics, Master's degree (Project management), 2018.

Postgraduate/Doctoral studies:

Kharkiv National University of Radio Electronics, Candidate of Technical Sciences, specialty "Biological and medical devices and systems", 2011.

Additional training, certification programs:

GlobalLogic, Certificate of training program «.NET/MVC Base Camp», 2014.

Wyższa Szkoła Humanitas w Sosnowcu, Poland, Training course «Information system in medicine and healthcare management», Certificate of training program №39/BWZZ/2016, 2016.

Kingston University, London & National University of Pharmacy, Kharkiv, Certificate of the Workshop "Grant Writing" within the Creative Spark project, Higher Education Enterprise Programme CREATIVE SPARK, 2019.

Advanced training in National Aerospace University "Kharkov Aviation Institute", Certificate of training program ПК02066769/00833-21, 2021.

Collegium Civitas (Warsaw), Poland, International postgraduate practical internship (training course) «Internationalization of education. New and innovative teaching methods. Implementation of international educational projects in the EU financial perspective», Certificate of training program NR 94/2023, 2023.

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WORK EXPERIENCE:

Professional Career (Workplace, Years, Position):

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2001-2002, Electronics engineer.

Kharkiv National University of Radio Electronics, Computing center, 2002-2003, Software engineer.

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2003-2008, 1st Class Engineer.

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2008-2011, Scientific employee.

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2012-2016, Senior Research Fellow and Senior Lecturer (part-time).

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2016-2017, Associate professor and Senior Research Fellow (part-time).

Kharkiv National University of Radio Electronics, Department of Biomedical Engineering, 2017-2018, Senior Research Fellow (part-time).

Kharkiv National University of Radio Electronics, Department of Information Control System, 2017-2018, Associate professor.

National Aerospace University "Kharkov Aviation Institute", Department of Radio Electronic and Biomedical Computerized Means and Technologies, 2019 – till now, Associate Professor.

Kharkiv University of Air Force, Civil Aviation Institute, 2020-2021, Guest Professor.

Teaching Experience:

13 years.

Senior Lecture of the Department of Biomedical Engineering, Kharkiv National University of Radio Electronics, 2012-2016, teaching courses: database management systems in medicine, Application software in BMI.

Associate professor of the Department of Biomedical Engineering, Kharkiv National University of Radio Electronics, 2016-2017, teaching courses: database management systems in medicine, application software in BMI, software for molecular and cellular biology, method and technique of experimental data processing, artificial organs and systems.

Associate professor of the Department of Information Control System, Kharkiv National University of Radio Electronics, 2017-2018, teaching courses: database management systems in medicine, application software in BMI, artificial organs and systems, information technologies in medicine.

Experience in International or National Projects:

№ 0107U001541, UA, «A study of the theoretical and technical principles of the human condition assessment, prevention, treatment and rehabilitation», Executor of separate sections of R&D, 2007-



2009.

№ 010U007614, UA, «Hardware-software complex to determine the molecular mechanisms of the human body pathologies and optimization of the process of treatment of cardiological diseases of different etiologies», Executor of separate sections of R&D, 2009-2010.

№ 0110U002532, UA, «A study of the theoretical and technical principles of diagnosis, medical and social assessment of the human condition and correction», Executor of separate sections of R&D, 2010-2012.

№ 0112U007750, 0113U000359, UA, «Development of a database of scattered and potential parameters forming source toxicity on large areas of hard-to-reach terrain», Executor of separate sections of R&D, 2013-2014.

№0113U000362, UA, «Theoretical substantiation and development of the concept of diagnostics and prediction of the functional state of human using information technology», Responsible executor of R&D, 2013-2015.

№0115U002437, UA, «Development of information technology for identification system adaptive capabilities of adolescents with cardiac pathology», Responsible executor of R&D, 2015-2016.

№0117U002523, UA, «Theoretical foundations and the concept of diagnostics and treatment of conditions that threaten human life», Responsible executor of R&D, 2017-2019.

RESEARCH ACTIVITIES:

Main Research Areas:

Medical cybernetics; medical information technology and systems; numerical optimization techniques; methods and tools for the design and development of medical databases and data warehouses.

Number of Publications (Scopus, WoS, others):

Over 240 scientific publications, including indexed articles in Scopus and Web of Science databases; multiple conference proceedings and applied research outputs; over 20 patents and copyright certificates.

Monographs, Textbooks:

1) Прогнозування стану біологічного об'єкта з використанням інформаційних технологій: монографія / О. В. Висоцька, А. І. Печерська, А. П. Порван; Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т". - Харків: Друкарня Мадрид, 2019. – 150 с. – ISBN 978-617-7683-78-9

2) Bioproduction Processes Analysis & Epidemiological Threats Forecasting: monography / Olena Vysotska, Anna Pecherska, Lyubov Rysovana, Andrii Porvan; LAP LAMBERT Academic Publishing, 2019. – 208 p. – ISBN 978-620-0-23192-5

Participation in Scientific Conferences:

1) Метод інтегральної оцінки якості життя людини. / Кизилів І. Р., Висоцька О. В., Порван А. П. Електроенергетика, електромеханіка та технології в АПК: матеріали Міжнар. наук.-практ. конф., 6 листопада 2024 р., Держ. біотехнологічний ун-т. Харків: ДБТУ, 2024. С. 206-207.

2) Determination of Public Health Status of the Population. / Visotska O., Porvan A., Kovtun O. // Materials of the International Scientific Internet Conference "Information Society: Technological,



Economic and Technical Aspects of Formation” WSZIA w Opolu, Opole, Poland, May 14-15, 2024 / editors: O. Patryak et al. NGO “Scientific Community”, WSZIA w Opolu., Ternopil: FO-P Shpak V.B.. P.141-143.

3) Development of the Method for Determining the Composition of the Human Body. / Iena Vysotska, Andrii Porvan, Volodymyr Babiuk. Інформаційне суспільство: технологічні, економічні та технічні аспекти становлення (випуск 85): матеріали Міжнародної наукової інтернет-конференції, (м. Тернопіль, Україна, м. Ополь, Польща, 15-16 лютого 2024 р.) / редкол.: О. Патряк та ін. ГО “Наукова спільнота”, WSZIA w Opolu. Тернопіль: ФО-П Шпак ВБ 2023. 119 с.—ISSN 2522-932X

4) Роль ІТ у визначенні темпів старіння людини / І. О. Почепецька, А. П. Порван // Збірник матеріалів IV Міжнародної науково-практичної конференції «Інформаційні системи та технології в медицині» (ICM–2021) 25-26 листопада 2021 р. Харків: Національний аерокосмічний університет імені М. Є. Жуковського «Харківський авіаційний інститут», 2021. – С. 48-49.

5) Розробка інформаційної системи визначення темпів старіння людини / О. Довнар, М. Буняєва, А. Порван // Збірник матеріалів IV Міжнародної науково-практичної конференції «Інформаційні системи та технології в медицині» (ICM–2021) 25-26 листопада 2021 р. Харків: Національний аерокосмічний університет імені М. Є. Жуковського «Харківський авіаційний інститут», 2021. – С. 238-239.

6) Information system for recognition of biological objects in the RGB spectrum range / Y.G. Bepalov, O. Vysotska, A. Porvan, E. Linnyk, V.A. Stasenko, G.D. Doroshenko, Z. Omiotek, Y. Amirgaliyev // Information Technology in Medical Diagnostics II - Proceedings of the International Scientific Internet Conference on Computer Graphics and Image Processing and 48th International Scientific and Practical Conference on Application of Lasers in Medicine and Biology, 2018. DOI:10.1201/9780429057618-13 (Scopus)

7) Mathematical modeling of systemic factors determining the risk of deterioration of drinking water supply and development of allergic diseases of population / Yurii G. Bepalov, Konstantin V. Nosov, Olena V. Vysotska, Andrii P. Porvan, Zbigniew Omiotek, Aron Burlibay, Azat Assembay, Małgorzata Szatkowska // Proceedings of SPIE - The International Society for Optical Engineering, 2017. DOI:10.1117/12.2280964 (Scopus)

8) Family crisis investigation on the basis of regression analysis / Alekseienko R., Risovanaya L., Vysotskaya E., Porvan A. // The problems of empirical research in psychology and humanities: Roland Barthes VIII International Scientific Conference. Europejskie Studia Humanistyczne: państwo i społeczeństwo, 2016. 83-91.

9) Technology for determining of students adaptive capabilities. / Porvan A. // 2015 Information Technologies in Innovation Business Conference (ITIB), Kharkiv, Ukraine, 2015, pp. 47-51, doi: 10.1109/ITIB.2015.7355050. (WoS)

TEACHING ACTIVITIES:

Courses Taught:

“Database management systems in medicine”, “Modeling in biology and medicine”, “Fundamentals of programming and computer technology”, “Medical informatics”, “Computer networks and telemedicine”.

Author Courses, Academic Programs:

Author of the course “Medical informatics”, “Modeling in biology and medicine”, “Fundamentals of programming and computer technology”.

Methodological Materials, Textbooks:

Схемотехніка та архітектура обчислювальних систем: навч. посіб. до лаб. практикуму / А. П.



Порван, А. І. Трунова; М-во освіти і науки України, Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т". – Харків. – Нац. аерокосм. ун-т ім. М. Є. Жуковського "Харків. авіац. ін-т", 2021. – 48 с.

Tutorial for laboratory works at "Biomedical Devices, Apparatures, Systems and Technologies. Part 3. Artificial organs and systems". Kharkiv, NURE, 2017. 56 p.

Developed electronic resources for hybrid and online teaching (LMS: Moodle).

GRANTS AND PROJECTS:

Participation in International and National Projects:

R&D № 0107U001541, UA, «A study of the theoretical and technical principles of the human condition assessment, prevention, treatment and rehabilitation», 2007-2009.

R&D № 010U007614, UA, «Hardware-software complex to determine the molecular mechanisms of the human body pathologies and optimization of the process of treatment of cardiological diseases of different etiologies», 2009-2010.

R&D № 0110U002532, UA, «A study of the theoretical and technical principles of diagnosis, medical and social assessment of the human condition and correction», 2010-2012.

R&D № 0112U007750, 0113U000359, UA, «Development of a database of scattered and potential parameters forming source toxicity on large areas of hard-to-reach terrain», 2013-2014.

R&D №0113U000362, UA, «Theoretical substantiation and development of the concept of diagnostics and prediction of the functional state of human using information technology», 2013-2015.

R&D №0115U002437, UA, «Development of information technology for identification system adaptive capabilities of adolescents with cardiac pathology», 2015-2016.

R&D №0117U002523, UA, «Theoretical foundations and the concept of diagnostics and treatment of conditions that threaten human life», 2017-2019.

PROFESSIONAL ACHIEVEMENTS AND AWARDS:

Distinctions, Awards, Prizes:

Certificate of Honor of Kharkiv City Council, Department of Education, 2015.

Gratitude from the Kharkiv Mayor, 2021.

Multiple winner of regional and international competitions of innovative projects "Kharkov Initiatives" and "IT-Kharkov".

Membership in Professional Associations:

Member of public organization "All-Ukrainian Association of Biomedical Engineering and Technology".

Member of NGO "International Educators and Scientists Foundation" (IESF).





INTERNATIONAL ACTIVITIES:

Internships:

International postgraduate practical internship (training course) «Information system in medicine and healthcare management», Wyższa Szkoła Humanitas w Sosnowcu, Poland.

International postgraduate practical internship (training course) «Internationalization of education. New and innovative teaching methods. Implementation of international educational projects in the EU financial perspective», Collegium Civitas (Warsaw), Poland.

Cooperation with Foreign Universities:

Wildau-Kharkiv IT Bridge II, Wildau Technical University of Applied Sciences, Germany.

Teaching/Lecturing Abroad:

Guest Professor in the DAAD programme “Digital Ukraine: Ensuring academic success in times of crisis (2023)”, elective course “Organization of Big Data and Distributed Healthcare Systems (Bachelor)” 5 CP, in summer semester 2023, Wildau-Kharkiv IT Bridge II, Wildau Technical University of Applied Sciences, Germany.

SELECTED PUBLICATIONS:

Key Articles (Scopus, WoS, others):

Dudar, T., Titarenko, O., Nekos, A., Vysotska, O., & Porvan, A. (2021). Some aspects of environmental hazard due to uranium mining in Ukraine. *Journal of Geology, Geography and Geoecology*, 30(1), 34-42. <https://doi.org/10.15421/112104>. (WoS)

Porvan, T. Dudar, O. Titarenko, A. Nekos, & O. Vysotska. (2020). Geospatial Modeling of Radon-Prone Areas. *Nuclear and Radiation Safety*, 3 (87), 28-37. doi: 10.32918/nrs.2020.3(87).04. (Scopus)

Dobrorodnia, H., Vysotska, O., Georgiyants, ..., Porvan, A. (2018). Development of an approach to mathematical description of imbalance in metabolic processes for its application in the medical diagnostic information system. *Eastern-European Journal Of Enterprise Technologies*, 5(2 (95)), 29-39. (Scopus)

Georgiyants, M. A., Pushkar, M. B., Vysotska, O. V., & Porvan, A. P. (2017). Optimization of postoperative analgesia after adenoidectomy in children. *Regulatory Mechanisms in Biosystems*, 8(2), 277-282. <https://doi.org/10.15421/021743>. (WoS)

Porvan, A., Yakubovska, S., Vysotska, O., Yelchaninov, D., & Linnyk, E. (2016). Developing a method for prediction of relapsing myocardial infarction based on interpolation diagnostic polynomial. *Eastern-European Journal of Enterprise Technologies*, 5(9), 41-49. – doi:10.15587/1729-4061.2016.81004. (Scopus)

Visotskaja, E. V., Dovnar, A. I., & Porvan, A. P. (2010). Subjective Information Estimation Technique for Determination of Patient's Organism Condition Using the Hierarchy Analysis Method. *Radio Electronics, Computer Science, Control*, (1), 45-50. <https://doi.org/10.15588/1607-3274-2010-1-9>. (WoS)



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Books, Chapters in Collective Monographs:

Висоцька О.В., Щукін М.О., Порван А. П. Прикладне програмне забезпечення в БМІ. Навчальний посібник для студентів денної та заочної форм навчання напрямку 6.0514.02 «Біомедична інженерія» – Харків: ХНУРЕ, 2011. 224 с.

Апарати і системи заміщення втрачених органів та функцій організму людини: навч. посіб. для студ. денної та заочної форм навчання напрямку "Біомедична інженерія" / М. П. Мустецов, О. В. Висоцька, А. П. Порван ; ХНУРЕ. – Харків, 2009. – 245 с.

Links to Citation Database Profiles:

<https://www.researchgate.net/profile/Andrii-Porvan/publications>

ADDITIONAL INFORMATION:

Language Proficiency:

Ukrainian

IT Skills:

Programming language C++, data analysis using Statistica and SPSS (mathematical statistics software packages), business process modeling. Proficiency in working with Microsoft Office products.

Social and Community Activities:

Member of Alumni Association "International Association of Alumni Kharkiv National University of Radio Electronics".

Responsible Secretary of the Faculty Selection Committee

Curator of full-time academic groups.