

Scientist profile

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Name: Petro Pekh

Position: Associate Professor of the Department of Computer Engineering and Security

Biographical information: I was born on September 12, 1949, in the village of Krasnovolia, Luboml' district, Volyn region. I am married, and I have 2 daughters. I have been working at the Lutsk National Technical University since September 1975. In 2000, I received the scientific degree of Candidate of Technical Sciences. In 2021, I received the academic title of associate professor of the Applied Mathematic Department. I am currently working as an associate professor of the Computer Engineering and Security Department.



Education: specialist's degree

Period, Organization, Position		Obtained Qualification, Degree, or Diploma
1966-1971	Lviv Forestry Technical Institute, specialist's degree	Specialist's degree in the specialty "Automation and complex mechanization of chemical-technological processes"; qualification "Electromechanical engineer".
1971-1975	Lviv Forestry Technical Institute, postgraduate student	Postgraduate studies in the specialty "Machinery and processes of the forestry complex"
2000	Lutsk National Technical University, candidate of technical sciences	Scientific degree and diploma of candidate of technical sciences in the specialty 05.05.07 "Machines and processes of the forestry complex "
2021	Lutsk National Technical University, associate professor	Academic title of associate professor of the Applied Mathematic Department

Scientific interests: mathematical modelling, algorithmization and simulation modeling of automated lines with stochastic nature of work; programming using the C and C++ languages in various software environments (Visual Studio, C++Builder and others); Python programming; object programming and class construction based on the principles of encapsulation, inheritance and polymorphism; calculation and modeling methods using Matlab and Matlab Simulink; operations research and mass service theory; the theory of probabilities and the theory of random processes; programming of abstract data structures; universal programming using a library of standard STL templates.

Scientific and pedagogical activity:

Period	Organization	Position	Type of work
01.09.1966 – 30.07.1971	Lviv Forestry Technical Institute	student	Studying
01.11.1971 – 30.11.1975	Lviv Forestry Technical Institute	post graduate student	Studying and research work
01.12.1975 – 31.08.1977	Lviv Forestry Technical Institute	assistant	Teaching and research work
01.09.1977 – 31.10.1983	Lutsk National Technical University	assistant	Teaching and research work
01.11.1983 – 31.08.1991	Lutsk National Technical University	senior lecturer	Teaching and research work
01.09.1991 – 30.11.2001	Lutsk National Technical University	senior lecturer	Teaching and research work

01.12.2001 – 31.08.2002	Lutsk National Technical University	associate professor	Teaching and research work
01.09.2002 – 30.07.2020	Lutsk National Technical University	head of department	Teaching and research work
01.08.2020 – until today	Lutsk National Technical University	associate professor	Teaching and research work

Educational disciplines: Programming; Calculation and modeling methods; Object-oriented programming; Algorithms and calculation methods; Operations research and mass service theory; Theory of random processes and mass service.

Knowledge of languages: Ukrainian, Russian, English (B2)

Professional awards:

1. Certificate of Honor of the Prime Minister of Ukraine (2010);
2. Honorary certificate of the Ministry of Education and Science of Ukraine (2006);
3. Badge "Excellent in Education of Ukraine" (Order of the Ministry of Education and Culture of Ukraine No. p/30-k dated January 23, 1998);
4. Certificate of Honor of the Volyn Regional State Administration (2009); Certificates of honor of the Lutsk National Technical University.

SELECTED WORKS:

ARTICLES:

1. P. Pekh, O. Kuzmych, N. Zdolbitska, N. Bahniuk, I. Pasternak. Generators of Some Kinds Random Erlang Numbers and Estimation of Their Complexity // IEEExplore Digital Library (Scopus), Published in: 2020 10th International Conference on Advanced Computer Information Technologies (ACIT). DOI: 10.1109/ACIT49673.2020.9208831, ISBN: 978-1-7281-6760-2. <https://ieeexplore.ieee.org/document/9208831>
2. V. M. Melnyk, P. A. Pekh, K. V. Melnyk, N. V. Bagniuk, O. K. Zhigarevich. Construction and use of an interdomain communication mechanism for high-performance data processing. // Eastern European journal of advanced technologies. – Kharkiv (DOI – Scopus). – 2016. – No. 1/9/79. - with.
3. O. Kuzmych, J. Awrejcewicz, O. Mekush, P. Pekh, K. Bortnik, E. Potemkina, I. Shubala. Development of Control for the Ankle Joint Simulator Applied to the Problem on Vertical Posture Balance of a Human. // Eastern-European Journal of Enterprise Technologies, ISSN 1729-3774, No. 6/7 (96), 2018 (Scopus), DOI: 10.15587/1729-4061.2018.150321, pp. 49-57.
4. Pekh P.A., Kostyuk Yu.Yu., Kravchenko M.B. On the issue of designing classes with different types of constructors // Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 39. - 2020. - pp. 197-202 (0.75 dr. sheet).
5. Pekh P.A., Grabynskyi B.P.. Verification of the hypothesis about the nature and parameters of the distribution of random variables // Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 40. – 2020. – pp. 76-83 (0.75 dr. sheet).
6. Pekh P.A., Korets R.S. Realization of the main function of the calculator - calculation of expressions - using Java classes // Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 35. – 2019. – pp. 166-171 (0.75 dr. sheet)
7. Pekh P. A., Yakovlyuk S. M. Creating a deck of cards from programming in the C++ language using the Anki program // Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 35. – 2019. – pp. 172-176 (0.625 dr. sheet)
8. Pekh P.A., Kobuk R.F. C++Builder program and demonstration complex for the study of equations with parameters by the method of intersection with straight lines // Scientific journal "Computer-

integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 30-31. – 2018. – pp. 111-119 (1,125 dr. sheets)

9. Pekh P.A., Tikhomirov V.V. *Methods of forming system requirements for AZ for bulky 3D programs //* Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 30-31. – 2018. – pp. 120-125 (0.75 dr. sheet)

SELECTED EDUCATIONAL AND METHODOLOGICAL PUBLICATIONS

1. *Laboratory workshop on programming in the C / C++ language //* study guide for students. technical special closing higher education level I-IV accreditation / Pekh P.A., S.V. Lavrenchuk, M.V. Delyavskiy, S.V. Hrynyuk – Lutsk: Vezha-Druk, 2020. – 228 p.
2. *Laboratory practicum on operations research and mathematical modeling //* study guide for students. technical special closing higher education level I-IV accreditation / Pekh P.A., Chernyashchuk N.L., Delyavskiy M.V., Bagnyuk N.V., Kuzmych O.I. – Lutsk: Teren, 2020. – 100 p.
3. *Programming: Methodological instructions for laboratory classes for students of the first (bachelor) level of educational and professional programs "Computer Engineering" and "Cybersecurity" branch of knowledge 12 "Information Technologies" specialties 123 Computer Engineering and 125 Cybersecurity full-time and part-time forms training/ arrangement PAS.* Pekh P.A. – Lutsk: Lutsk National Technical University, 2020. – 226 p. A4 format
4. *Programming: Synopsis of lectures for applicants of the first (bachelor) level of educational and professional programs "Computer Engineering" and "Cybersecurity" branch of knowledge 12 "Information Technologies" specialties 123 Computer Engineering and 125 Cybersecurity of full-time and part-time forms of study/ arrangement .* Pekh P.A.– Lutsk: Lutsk National Technical University, 2020. – 247 p. A4 format
5. *Pekh P.A. Operations research and the theory of mass service: Synopsis of lectures for students of the first (bachelor) level of the educational program "Computer Engineering" in the field of knowledge 12 "Information Technologies" specialty 123 "Computer Engineering" full-time and part-time forms of study -* Lutsk: Lutsk National Technical University, 2020. – 146 p. A4 format
6. *Pekh P.A. Operations research and the theory of mass service: Methodological instructions for performing laboratory work for students of the first (bachelor) level of the educational program "Computer Engineering" field of knowledge 12 "Information Technologies" specialty 123 "Computer Engineering" full-time and correspondence forms of education.* Pekh P.A. - Lutsk : Lutsk National Technical University, 2020. – 91 p. A4 format
7. *Pekh P.A. Algorithms and methods of calculations: Methodological instructions for performing laboratory work for applicants of the first (bachelor) level of the educational and professional program "Computer Engineering" of the field of knowledge 12 "Information Technologies" specialty 123 "Computer Engineering" full-time and correspondence forms of education -* Lutsk : Lutsk National Technical University, 2020. – 162 p. A4 format
8. *Pekh P.A., Kobuk R.F. C++Builder program and demonstration complex for the study of equations with parameters by the method of intersection with straight lines //* Scientific journal "Computer-integrated technologies: education, science, production" - Lutsk: LNTU Publishing House. - Issue 30-31. – 2018. – pp. 111-119 (1,125 dr. sheets)

Membership in scientific societies:

1. Cisco Academy. (Certificates of successful completion of the "Essentials Programming in C" and "Advanced Programming in C++" courses: "CLA: Programming Essentials in C" on October 12, 2018;"CPP: Advanced Programming in C++" March 27, 2019).

LINK PROFILE:

ORCID: <https://orcid.org/0000-0002-6327-3319>

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=57214355300>

Web of Science Researcher ID: <https://publons.com/researcher/1933470/petro-pekh/>

Google Scholar: https://scholar.google.com.ua/citations?view_op=list_works&hl=uk&user=jSldtyW5mQ8C