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Date of birth: April 16, 1971

Place of birth: Velyki Dederkaly, Ternopil Region, Ukraine

Address (work): Medical Informatics Department, Ternopil Medical University,
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EDUCATION

- 2005 Doctor of Engineering Sciences (the highest scientific degree in the Ukraine)
Kiev Taras Shevchenko National University, Faculty of Cybernetics
Specialty 01.05.04 – System Analysis and Decision Making (area Informatics and Cybernetics)
- 2000-2004 Postdoctoral study at Kiev Taras Shevchenko National University, Faculty of Cybernetics
- 1996 Candidate of Physical and Mathematical Sciences (equivalent to Ph.D.) Kiev Taras Shevchenko National University, Faculty of Cybernetics
Specialty 01.05.04 – System Analysis and Decision Making (area Informatics and Cybernetics)
- 1993-1996 Post-graduate study at Complex System Simulation Department, Kiev Taras Shevchenko National University
- 1988-1993 Diploma of applied mathematician, lecturer, Kiev Taras Shevchenko National University, Faculty of Cybernetics, Ukraine

SECOND EDUCATION

- 2005-2010 Diploma of pharmacy, Kharkov National Pharmaceutical University, Ukraine

WORK EXPERIENCE

- 2014 - present Institute of Information Technologies and Learning Tools of the National Academy of Pedagogical Sciences of Ukraine, Kiev, Scientific Supervisor
- 2005-present Ternopil Medical University, Medical Informatics Department, Full Professor
- 2001-2014 Ternopil Medical University, Head of Medical Informatics Department
- 1999-2001 Ternopil Medical University, Medical Informatics Department, Associate Professor
- 1997-1999 Ternopil Medical University, Medical Informatics Department, Assistant Professor
- 1999-present Ternopil Medical University, Head of IT Department

TRAINEESHIP

- 2011 June International Career Consulting (ICC), New York – Distance Learning for Nursing Education
- 2008 April Charles University in Prague, First Medical Faculty –

	Educational Network of Medical Faculties in Chech Republic MEFANET
2007 May	Vienna Medical University – Organization of Test Examination
2006 February	University of South Carolina, US – Distance Learning for Nursing Education, Medical Information Systems

MEMBERSHIP

1997-present	AMS (American Mathematical Society)
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SCIENTIFIC INTERESTS

Informatics	Data mining – decision tree/classification rules induction
Cybernetics	Control theory, system analysis
Mathematics	Functional-differential equations, population dynamics, qualitative analysis, stability
Computer Science	Scientific calculations, Internet programming

LANGUAGES

Ukrainian	native
Russian	free
Polish	good
English	free, experience of teaching foreign students since 2000, certificate of Kiev Taras Shevchenko National University (1993)

SKILLS

Computer	IBM + Software (Latex, MsOffice, Delphi, Java (mainly), Netbeans, XML, MySQL) Distance Learning System MOODLE, Adobe Director
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MAIN CONFERENCES

2000-2014 Kiev, Ukraine – Brno, Czech Republik	PDMU (Prediction and Decision Making Under Uncertainties)
2009 April, Las Vegas, US	International Conference of ATA (American Telemedicine Association)
2008 September, Barcelona, Spain	International Conference “European Quality 2009”
2007 May, Salzburg, Austria	International Conference on Medical Education
2006 July, Davos, Switzerland	AFES 2006 Davos Forum Education – Investments Research & Development
2005,2009 Minsk, Belorussia	International Conference On Advanced Information and Telemedicine Technologies for Health (AITTH)
2004 December, Vienna	IIASA International Conference “Coping with Uncertainties” (International Institute for Applied System Analysis)
1995 Veszprem, Hungary	International Conference on Difference Equations
1994 Moscow, Russia	International Conference on Functional Differential Equations
1994-2004 Kiev, Ukraine	DSMSI (Dynamic Systems Modeling and Stability Investigations)

SCIENTIFIC SUPERVISION

Igor Ye. Andrushchak, Kiev Taras Shevchenko	Doctor of Sciences (Informatics) “Decision Making System for Medical System Research”
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<p>National University, 2012- present Petro R. Selskyy, National Medical Academy of Postgraduate Education, Kiev, 2014</p>	<p>Doctor of Sciences (Medical and Biological Informatics and Cybernetics, Medicine) “Information System for Quality Management of Training Specialists and Medical Care at the Primary Level”</p>
<p>Oksana A. Bagriy- Zayats, Institute of Telecommunicatio ns and Global Information Space of the National Academy of Sciences of Ukraine, Kiev, 2014</p>	<p>Candidate of Sciences (Informatics) “Modeling and Methods of Analysis of Processes of Pathological Formation Growth”</p>
<p>Natalya Ya. Klymuk, Kiev Taras Shevchenko National University, 2013</p>	<p>Candidate of Sciences (Informatics) “Models of health insurance processes based on disease etiology”</p>
<p>Iryna B. Melenchuk, Kiev Taras Shevchenko National University, 2013</p>	<p>Candidate of Sciences (Informatics) “Models and methods of optimization for pharmacokinetics of nanoparticles”</p>
<p>Iryna S. Gvozdetska, V.M.Glushkov Institute of Cybernetics of the National Academy of Sciences of Ukraine, Kiev, 2012</p>	<p>Candidate of Sciences (Informatics) “Mathematical models of tumor growth based on Gompertzian dynamics”</p>
<p>Olha O. Stakhanska, National Medical Academy of Postgraduate Education, Kiev, 2012</p>	<p>Candidate of Sciences (Medical and Biological Informatics and Cybernetics, Medicine) “System analysis based application of innovative methodologies in medical education”</p>
<p>Andriy V. Semenets, Kiev Taras Shevchenko National University, 2011</p>	<p>Candidate of Sciences (Informatics) “Methods and software tools for knowledge assessment in medical education”</p>
<p>Ihor Ye. Andrushchak, Kiev</p>	<p>Candidate of Sciences (Informatics) “Models and optimizational methods in software environment</p>

Taras Shevchenko
National
University, 2009
Dmytro V.
Vakulenko, Kiev
Taras Shevchenko
National
University, 2008

supporting pharmacokinetic system research”

Candidate of Sciences (Informatics)
“Modeling and system analysis of bone tissue remodeling
process”

SOFTWARE DEVELOPMENT

2014 - present	System of statistical analysis of students of Ukrainian medical universities (Web-project)
2013 – present	Java-packages for Decision tree induction and Sequential covering algorithms
2013 - present	Development of software for simulation of practical medical skills (Adobe Director + Lingo)
2013	Package of Java-classes for Decision Curve Analysis algorithm
2010	Java-package for optimal control problem solution
2009 – present	Project for university professors rating (Java Servlet + JSP + MySQL)
2007 – present	System of student test semester examination (Delphi)
2004 – present	Package of Java-classes for modeling compartmental systems in medicine and biology
2002 – 2004	Package of Java classes for functional-differential equations investigations
1998 – 2004	Library of Delphi Components for practicals for the Medical Informatics course
1998 – 2001	Environment for development of multimedia CDs in medical education (Delphi)
1990 - 1996	Dos-applications (Borland Pascal, C++, Fortran)

PUBLICATIONS

More than 80 scientific papers are published. Below are the most recent and relevant ones:

- [1] V.P.Martsenyuk, I.Ye.Andrushchak, Development of Clinical Expert System based on Rules with help of Sequential Covering Method, *Scientific Papers of Petro Mohyla Black Sea State University: Computer Technologies* 237(225): 5-10, 2014 (in Ukrainian)
- [2] V.P.Martsenyuk, I.Ye.Andrushchak, N.M.Gandzyuk, Constructing exponential estimates in compartmental systems with distributed delays: an approach based on the hale-lunel inequality, *Cybernetics and Systems Analysis* 49 (3): 347-352, 2013 - Springer
- [3] V.P.Martsenyuk, N.M.Gandzyuk, Stability estimation method for compartmental models with delay, *Cybernetics and Systems Analysis* 49 (1): 81-85, 2013 - Springer
- [4] V.P.Martsenyuk, O.A.Bagriy-Zayats, Construction of Estimates of Solutions in the Model of Antitumor Immunity with Impulse Disturbances – **Vol. 45/10** (2013) - *Journal of Automation and Information Sciences* – pp.75-82. – Begell House
- [5] V.P.Martsenyuk, O.A.Bagriy-Zayats, On conditions for asymptotic stability in models of pathological entities growth based on the Richard’s dynamic, *System Research and Information Technologies* No.3: 118-129, 2013. (in Ukrainian)
- [6] V.P.Martsenyuk, R.V.Sarabun, The Software environment for Creating of

- an artificial ECG - **Vol. 8/9** (2012) – *Clinical Informatics and Telemedicine* – pp.35-37. (in Ukrainian)
- [7] V. P. Martsenyuk, I.S.Gvozdetska, On the existence and stability of periodic solutions in the absence of immunity in an impulsive model based on Gompertzian dynamics, *Cybernetics and Systems Analysis* 48 (4): 586-591, 2012 - Springer
- [8] L.Ya.Kovalchuk, V.P.Martsenyuk, P.R.Selskyy, The Substantiation of using Information Technologies for Family Medicine Training and Improvement the Medical Care Quality at the Primary Level - **Vol. 8/9** (2012) – *Clinical Informatics and Telemedicine* – pp.141-145. (in Ukrainian)
- [9] V.P.Martsenyuk, I.Ye.Andrushchak, I.S.Gvozdetska, N.Ya.Klymuk, Mathematical models in the system of the support of decisions for the oncology treatment insurance: an approach based on the Gompertzian dynamics. (Ukrainian. English summary) *Dopov. Nats. Akad. Nauk Ukr., Mat. Pryr. Tekh. Nauky* 2012, No.10, 34-39 (2012). (in Ukrainian)
- [10] V.P.Martsenyuk, N.Ya.Klymuk, On the Model of Oncological Disease for the Stage Residence Time in Accordance with the Gompertz Distribution – **Vol. 44/12** (2012) - *Journal of Automation and Information Sciences* – pp.68-75. – Begell House
- [11] V.P.Martsenyuk, I.Ye.Andrushchak, O.M.Kuchvara, Method of Construction and Determination of Approximate Solutions of the Model of Pharmacokinetics of Nanoparticles – **Vol. 44/8** (2012) - *Journal of Automation and Information Sciences* – pp.32-43. – Begell House
- [12] V.P.Martsenyuk, D.V.Vakulenko, I.Ye.Andrushchak, Optimal control of drug therapy and physiotherapy models for the problem of reconstruction of bone tissue, *System Research and Information Technologies* No.3: 108-122, 2011. (in Ukrainian)
- [13] V.P.Martsenyuk, I.Ye.Andrushchak, O.M.Kuchvara, On Conditions of Asymptotic Stability in SIR-Models of Mathematical Epidemiology – **Vol. 43/12** (2011) - *Journal of Automation and Information Sciences* – pp.59-68. – Begell House
- [14] V.P.Martsenyuk, I.Ye.Andrushchak, On Two-Compartment Pharmacokinetic Model with Delay on the Basis of the Michaelis-Menten Dynamics: Decomposition Method – **Vol. 41/8** (2009) - *Journal of Automation and Information Sciences* – pp.24-37. – Begell House
- [15] L.Ya.Kovalchuk, V.P.Martsenyuk, A.V.Semenets, Conceptual Methods of the Integrated Environment of the Knowledge Evaluation in the Medical Education - **Vol. 4/5** (2008) – *Clinical Informatics and Telemedicine* – pp.71-77. (in Ukrainian)
- [16] V.P.Martsenyuk, D.V.Vakulenko, On Model of Interaction of Cell Elements in the Process of Remodeling Bone Tissue on the Basis of Nonlinear Partial Differential Equations – **Vol. 39/7** (2007) - *Journal of Automation and Information Sciences* – pp.75-83. – Begell House
- [17] V.P.Martsenyuk, D.V.Vakulenko, On Model of Interaction of Cell Elements at Bone Tissue Remodeling – **Vol. 39/3** (2007) - *Journal of Automation and Information Sciences* – pp.68-80. – Begell House
- [18] A.G. Nakonechny and V.P.Marzeniuk, Uncertainties in Medical Processes Control. In “*Coping with Uncertainty. Modeling and Policy Issues*”. Springer, 2006. – P. 185-192.
- [19] Marzeniuk V., Nakonechny A. Investigation of Delay System with Piece-Wise Right Side Arising in Radiotherapy // *WSEAS Transactions on*

- Mathematics*, Issue 1, **Volume 3**, January 2004. – P. 181-187.
- [20] V.P.Martsenyuk, On the Problem of Chemotherapy Scheme Search Based on Control Theory – **Vol. 35/4** (2003) - *Journal of Automation and Information Sciences* – Begell House
- [21] V.P.Martsenyuk, On Hopf Bifurcation and Periodic Solutions in G.I.Marchuk Model of Immune Protection - **Vol. 35/8** (2003) - *Journal of Automation and Information Sciences* – Begell House
- [22] V. P. Martsenyuk, On Stability of Immune Protection Model with Regard for Damage of Target Organ: The Degenerate Liapunov Functionals Method, *Cybernetics and Systems Analysis* 40 (1): 126-136, 2004 - Springer
- [23] A. G. Nakonechnyi, V. P. Martsenyuk, Controllability Problems for Differential Gompertzian Dynamic Equations, *Cybernetics and Systems Analysis* 40 (2): 252-259, 2004 - Springer
- [24] Vasiliy P. Martsenyuk, Integro-Differential Models with Memory in Population Dynamics Problems, *Journal of Automation and Information Sciences*, 2004, **Volume 36**, Issue 10 – Begell House
- [25] Martsenyuk V. Construction and study of stability of an antitumoral immunity model, *Cybernetics and Systems Analysis*, **Volume 40**, Number 5, September 2004, pp. 778-783 - Springer
- [26] Marzeniuk V.P. Taking Into Account Delay in the Problem of Immune Protection of Organism, *Nonlinear Analysis: Real World Applications*, **Vol 2/4**, 2001. – P. 483-496. - Elsevier
- [27] V.P.Marceniuk. On Construction of Exponential Estimates For Linear Systems With Delay. In “*Advances in Difference Equations*”. Gordon and Breach Science Publishers, 1997. – P. 439-444.

TEXTBOOKS

- [1] Bulakh, I.Ye., Lyakh, Yu.Ye., Martsenyuk, V.P., Khaimzon, I.I. Medical Informatics. Textbook. Ternopil: TSMU 2008. — 308 pp. (in Ukrainian)

TUTORIALS

- [1] Martsenyuk, V. P.. Personal computer hardware and software fundamentals: a manual for students / V. P. Martsenyuk, A. V. Semenets'. - Ternopil : TSMU : Ukrmedknyha, 2009. - 324 p.: fig. - ISBN 978-966-673-139-8
- [2] Marzeniuk, VP; Diduch, VD; Vakulenko, DV; Biophysics and medical informatics, Ternopil: Ukrmedkniha, 2004
- [3] Martsenyuk, V. P., Semenets, A.V. Developer and Expert Systems. – Ternopil: Ukrmedknyha, 2003. – 222 pp. (in Ukrainian)
- [4] Martsenyuk, V. P., Kravets, N.O. Medical Informatics. System Analysis Methods. – Ternopil: Ukrmedknyha, 2002. – 177 pp. (in Ukrainian)
- [5] Martsenyuk, V.P. Medical Informatics. Developing and Using Databases – Ternopil: Ukrmedknyha, 2001. – 178 pp. (in Ukrainian)

MONOGRAPHS

- [1] O.H.Nakonachny, V.P.Martsenyuk, I.Ye.Andrushchak, Information technologies of Decision Making, Optimization and Control for System Medical Research – Lutsk: LNTU, 2014. – 321 pp. (in Ukrainian)
- [2] V.P.Martsenyuk, O.H.Nakonechny, Models and Methods of Population Dynamics for software environment supporting systematic medical research – Ternopil: Ukrmedknyha, 2009. – 407 pp. (in Ukrainian)
- [3] Vasiliy P. Marzeniuk, Qualitative Analysis of Human Cells Dynamics:

Stability, Periodicity, Bifurcations, Control Problems, In *“Advances in Mathematics Research”*, **Volume 5**, New York: Nova Science Publishers, 2005. – P. 137-200.

- [4] Marzeniuk V.P., Nakonechny A.G. *System analysis methods of medical and biological processes*. – Ternopil: Ukrmedknyha, 2003

SCIENTIFIC SOCIETIES

2011-present	Academy of Sciences of High School of Ukraine (academician, Informatics and System Analysis branch)
1998-present	Academy of Sciences of Technical Cybernetics (corresponding member)
1998	Americal Medical Informatics Association (member)
1996-2001	Americal Mathematical Society (member)