

**CURRICULUM VITAE****Dr. Volodymyr O. Turchenko**

Ph.D. in Computer Engineering

Postdoctoral Research Fellow  
 Canadian Centre for Behavioural Neuroscience  
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<http://uweb.deis.unical.it/turchenko/>

**Education & scientific titles**

<b>Dec 2004</b>	Associate Professor (Docent) of Information Computing Systems and Control Department of Ternopil National Economic University, given by the Ministry of Education and Science of Ukraine, Kyiv, Ukraine
<b>Nov 2001</b>	Ph.D. in Computer Engineering, Lviv Polytechnic National University, Lviv, Ukraine
<b>Jul 1995</b>	Dipl. Eng., equiv. M.Sc. (honors) in System Engineering, Brest Polytechnic Institute, Brest, Belarus

**Research interests**

Theory and applications of artificial neural networks, deep machine learning, parallel and distributed computing

**Programming languages, parallel computing technologies and deep learning frameworks**

C, C++, Matlab, LuaJIT, MPI, OpenMP, CUDA, Caffe, Torch7

**H-index and number of citations (based on Scopus record, Sep 01, 2016)**

<http://www.scopus.com/authid/detail.url?authorId=6603541176>

H-index: 7

Number of documents: 48

Citations: 176 citations by 115 documents

**Experience**

<b>1.</b>	<b>01/2015 - present</b>	Postdoctoral Research Fellow, Canadian Centre for Behavioural Neuroscience, Department of Neuroscience, University of Lethbridge, <b>Canada</b>
<b>2.</b>	<b>08/2013 – 01/2015</b>	Associate Professor, Information Computing Systems and Control Department, Head of Neural Network and Parallel Computing Group, Research Institute for Intelligent Computer Systems, Ternopil National Economic University (TNEU), <b>Ukraine</b>
<b>3.</b>	<b>09/2012 – 06/2013</b>	Fulbright Research Scholar, Innovative Computing Laboratory, University of Tennessee, <b>USA</b>
<b>4.</b>	<b>08/2011 – 09/2012</b>	FP7 Marie Curie Postdoctoral Research Fellow, Head of Neural Network and Parallel Computing Group, Research Institute for Intelligent Computer Systems, TNEU, <b>Ukraine</b>
<b>5.</b>	<b>04/2009 – 06/2011</b>	FP7 Marie Curie Postdoctoral Research Fellow, Department of Electronics, Informatics and Systems, Supercomputing Center for Engineering Computations, University of Calabria, <b>Italy</b>
<b>6.</b>	<b>12/2004 – 04/2009</b>	Associate Professor of Information Computing Systems and Control Department, Head of Neural Network and Parallel Computing Group, TNEU, <b>Ukraine</b>
<b>7.</b>	<b>03/2002 – 12/2004</b>	Assistant Professor, Information Computing Systems and Control Department, Ternopil Academy of National Economy (TANE), <b>Ukraine</b>
<b>8.</b>	<b>09/2000 – 03/2002</b>	Senior Lecturer, Information Computing Systems and Control Department, TANE, <b>Ukraine</b>
<b>9.</b>	<b>11/1997 – 09/2000</b>	Ph.D. Student, Information Computing Systems and Control Department, TANE, <b>Ukraine</b>
<b>10.</b>	<b>12/1996 – 11/1997</b>	Lecturer, Information Computing Systems and Control Department, TANE, <b>Ukraine</b>
<b>11.</b>	<b>08/1995 – 12/1996</b>	System Engineer, Information Computing Systems and Control Department, TANE, <b>Ukraine</b>

**Funded Research Projects**

<b>1.</b>	<b>2012 - 2013</b>	Fulbright Research Scholar Program 68120260 “Efficient Parallel Batch and Single Pattern Neural Network Training Algorithms Using Open MPI and GPU-computing”, Innovative Computing Laboratory, University of Tennessee, Knoxville, TN, <b>USA</b>
<b>2.</b>	<b>2011 - 2012</b>	FP7 Marie Curie International Incoming Fellowship 221524-908524 (returning phase) “PaGaLiNNeT - Parallel Grid-aware Library for Neural Networks Training”, Research Institute for Intelligent Computer Systems, Ternopil National Economic University, Ternopil, <b>Ukraine</b>
<b>3.</b>	<b>2009 - 2011</b>	FP7 Marie Curie International Incoming Fellowship 221524 (incoming phase) “PaGaLiNNeT - Parallel Grid-aware Library for Neural Networks Training”, University of Calabria, Rende, <b>Italy</b>

4.	2008 - 2009	MESU #M/47-2008 "Design and Optimization Methods of Physical Intrusion Detection for Security Systems", Gebze Institute of Technology, Gebze, <b>Turkey</b>
5.	2006 - 2007	MESU #M/85-2006 "Instruction Parameters Analysis for Power Modeling of Embedded Microprocessors", Aristotle University of Thessaloniki, Thessaloniki, <b>Greece</b>
6.	2005 - 2007	STCU #3872 "Development of Efficient GRID-technologies for Ecology Monitoring Using Satellite Data", Space Research Institute of National Academy of Sciences and National Aerospace Agency of Ukraine, Kyiv, <b>Ukraine</b> , University of Maine, Orono, ME, <b>USA</b>
7.	2004 - 2006	INTAS Young Scientist Fellowship 03-55-2493 "Development of Parallel Neural Networks Training Algorithms on Advanced High Performance Systems", University of Calabria, Rende, <b>Italy</b>
8.	2004 - 2006	MESU #M/79-2004 "Development of Web-based Measurement System with Distributed Intelligence", University of Sannio, Benevento, <b>Italy</b>
9.	2004 - 2006	CRDF CGP UE2-2534-TE-03 "Investigation of the Intelligent Properties of Re-Configurable Network Capable Application Processor in Adaptive Distributed Instrumentation and Control Systems", National Institute of Standards and Technology, Gaithersburg, MD, <b>USA</b>
10.	2004 - 2005	CRDF FSTM UM2-5012-TE-03 "Design of Distributed Sensor Network for Ayers Island Security Using Value Analysis", Trefoil Corp., Orono, ME, <b>USA</b>
11.	2002 - 2004	NATO PST.CLG.978744 "Using Multisensor Fusion and Neural Networks Techniques for Robot Control", University of La-Coruna, Ferrol, <b>Spain</b>
12.	2002 - 2004	NATO PST.CLG.977647 "Development of Intelligent Precision System for Thermal Objects Control", University of Mons, Mons, <b>Belgium</b>
13.	1999 - 2002	MESU (Ministry of Education and Sciences of Ukraine) IOSU-2000B "Development of the Intelligent System of Distributed Processing of Sensor Data Using Neural Networks", Kyiv, <b>Ukraine</b>
14.	1998 - 2001	INTAS-OPEN-97-0606 "Development of an Intelligent Sensing Instrumentation Structure", Aristotle University of Thessaloniki, Thessaloniki, <b>Greece</b> , University of Calabria, Cosenza, <b>Italy</b> , Brest State Technical University, Brest, <b>Belarus</b>

#### List of publications

##### A. Per-reviewed (Scopus-indexed) journals

- Turchenko V. Parallel Batch Pattern Training Algorithm for MLP with Two Hidden Layers on Many-Core System, *Advances in Intelligent Systems and Computing*, Eds.: S. Omatu et al., Springer International Publishing Switzerland, **2014**, Vol. 290, 537-544.
- Turchenko V., Sachenko A. Efficiency of Parallel Large-Scale Two-Layered MLP Training on Many-Core System, *Communications in Computer and Information Science*, Eds.: V. Golovko and A. Imada, Springer International Publishing Switzerland, **2014**, Vol. 440, 201-210.
- Turchenko V., Grandinetti L. Application of BSP-Based Computational Cost Model to Predict Parallelization Efficiency of MLP Training Algorithm, *Lecture Notes in Computing Science*, Eds.: K. Diamantaras, W. Duch, L.S. Iliadis, Springer, Berlin, Heidelberg, New York, **2010**, LNCS 6354, 327-332.
- Paliy I., Lamonaca F., Turchenko V., Grimaldi D., Sachenko A. Micro Nucleus Detection in Human Lymphocytes Using Convolutional Neural Network, *Lecture Notes in Computing Science*, Eds.: K. Diamantaras, W. Duch, L.S. Iliadis, Springer, Berlin, Heidelberg, New York, **2010**, LNCS 6352, 521-530.
- Turchenko V., Grandinetti L. Scalability of Enhanced Parallel Batch Pattern BP Training Algorithm on General-Purpose Supercomputers, *Advances in Intelligent and Soft-Computing*, Eds.: F. Ponce de Leon et al, Springer, Heidelberg, **2010**, Vol. 79, 518-526.
- Turchenko V., Grandinetti L., Bosilca G., Dongarra J. Improvement of parallelization efficiency of batch pattern BP training algorithm using Open MPI, *Procedia Computer Science* **2010**, Elsevier, Volume 1, Issue 1, 525-533.
- Turchenko V., Grandinetti L. Efficiency Analysis of Parallel Batch Pattern NN Training Algorithm on General-Purpose Supercomputer, *Lecture Notes in Computer Science*, Eds.: S. Omatu et al., Springer-Verlag, Berlin, Heidelberg, **2009**, LNCS 5518, 223-226.
- Turchenko V. Computational Grid vs. Parallel Computer for Coarse-Grain Parallelization of Neural Networks Training, *Lecture Notes in Computing Science*, Eds.: R. Meersman, Z. Tari, P. Herrero, Berlin, Heidelberg, New York, Springer-Verlag, **2005**, LNCS 3762, 357-366.
- Sachenko A., Kochan V., Turchenko V. Instrumentation for Data Gathering, *IEEE Instrumentation and Measurement Magazine*, **2003**, Vol. 6, No. 3, 34-40.
- Koval V., Turchenko V., Sachenko A., Becerra J. A., Duro R. J., Golovko V. Infrared Sensor Data Correction for Local Area Map Construction by a Mobile Robot, *Lecture Notes in Artificial Intelligence*, Springer-Verlag, Berlin, Heidelberg, **2003**, LNAI 2718, 306-315.
- Turchenko V., Kochan V., Sachenko A. Estimation of Computational Complexity of Sensor Accuracy Improvement Algorithm Based on Neural Networks, *Lecture Notes in Computing Science*, Eds.: G.Dorffner, H.Bischof, and K.Hornik, Springer-Verlag, Berlin, Heidelberg, New York, **2001**, LNCS 2130, 743-748.

*B. E-prints*

12. Turchenko V., Luczak A. Creation of a Deep Convolutional Auto-Encoder in Caffe, **arXiv:1512.01596**, 4 Dec 2015.

*C. Per-reviewed conference proceedings*

13. Golovko V., Kroschchanka A., Turchenko V., Jankowski S., Treadwell D. A New Technique for Restricted Boltzmann Machine Learning, *8<sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2015**, Warsaw, Poland, Vol. 1, 182-186.
14. Hiromoto R.E., Sachenko A., Kochan V., Koval V., Turchenko V., Roshchupkin O., Yatskiv V., Kovalok K. Mobile Ad Hoc Wireless Network for Pre- and Post-Emergency Situations in Nuclear Power Plant, *2<sup>nd</sup> IEEE International Symposium on Wireless Systems within IDAACS*, **2014**, Offenburg, Germany, 92-96.
15. Turchenko V., Golovko V. Parallel Batch Pattern Training Algorithm for Deep Neural Network, *2014 International Conference on High Performance Computing & Simulation (HPCS)*, **2014**, Bologna, Italy, 697-702.
16. Turchenko V., Bosilca G., Bouteiller A., Dongarra J. Efficient Parallelization of Batch Pattern Training Algorithm on Many-core and Cluster Architectures, *7<sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2013**, Berlin, Germany, Vol. 2, 692-698.
17. Wallace R.M., Turchenko V., Sheikhalishahi M., Turchenko I., Shults V., Vazquez-Poletti J.L., Grandinetti L. Applications of Neural-based Spot Market Prediction for Cloud Computing, *7<sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2013**, Berlin, Germany, Vol. 2, 710-716.
18. Turchenko V., Golovko V., Sachenko A. Parallel Training Algorithm for Radial Basis Function Neural Network, *7<sup>th</sup> International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **2012**, Minsk, Belarus, 47-51.
19. Turchenko V., Golovko V., Sachenko A. Parallel Batch Pattern Training of Recirculation Neural Network, *9<sup>th</sup> International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, **2012**, Rome, Italy, 644-650.
20. Turchenko V., Grandinetti L., Sachenko A. Parallel Batch Pattern Training of Neural Networks on Computational Clusters, *2012 International Conference on High Performance Computing & Simulation (HPCS)*, **2012**, Madrid, Spain, 202-208.
21. Turchenko V., Puhol T., Sachenko A., Grandinetti L. Cluster-Based Implementation of Resource Brokering Strategy for Parallel Training of Neural Networks, *6<sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2011**, Prague, Czech Republic, 212-217.
22. Turchenko V., Beraldi P., De Simone F., Grandinetti L. Short-term Stock Price Prediction Using MLP in Moving Simulation Mode, *6<sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2011**, Prague, Czech Republic, 666-671.
23. Paliy I., Lamonaca F., Turchenko V., Grimaldi D., Sachenko A. Detection of Micro Nucleus in Human Lymphocytes Altered by Gaussian Noise Using Convolution Neural Network, *2011 IEEE International Instrumentation and Measurement Technology Conference (I2MTC)*, **2011**, Binjiang, Hangzhou, China, 1097-1102.
24. Turchenko V., Grandinetti L. Strategy of Resource Brokering for Efficient Parallelization of MLP Training, *2010 International Conference on High Performance Computing & Simulation (HPCS)*, **2010**, Caen, France, 140-149.
25. Turchenko V., Grandinetti L. Parallel Batch Pattern BP Training Algorithm of Recurrent Neural Network, *14<sup>th</sup> IEEE International Conference on Intelligent Engineering Systems (INES)*, **2010**, Las Palmas of Gran Canaria, Spain, 25-30.
26. Turchenko V., Grandinetti L. Investigation of Computational Cost Model of MLP Parallel Batch Training Algorithm, *2009 IEEE Symposium on Industrial Electronics and Applications (ISIEA)*, **2009**, Kuala Lumpur, Malaysia, 983-988.
27. Turchenko V., Grandinetti L. Efficiency Research of Batch and Single Pattern MLP Parallel Training Algorithms, *5<sup>th</sup> IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2009**, Rende (Cosenza), Italy, 218-224.
28. Borovyi A., Kochan V., Dombrovskyy Z., Turchenko V., Sachenko A. Device for Measuring Instant Current Values of CPU's Energy Consumption, *5<sup>th</sup> IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2009**, Rende (Cosenza), Italy, 126-130.
29. Puhol T., Turchenko V., Vozniak S., Sachenko A. Globus-Middleware Based Grid of Research Institute for Intelligent Computer Systems, *5<sup>th</sup> IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2009**, Rende (Cosenza), Italy, 266-271.
30. Turchenko V., Grandinetti L. Minimal Architecture and Training Parameters of Multilayer Perceptron for its Efficient Parallelization, *5<sup>th</sup> International Workshop on Artificial Neural Networks and Intelligent Information Processing (ANNIP)*, **2009**, Milan, Italy, 79-87.
31. Borovyi A., Kochan V., Turchenko V., Sachenko A., Laopoulos Th. Neural-based Prediction of Power Consumption of Data-processing Instructions, *5<sup>th</sup> International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **2008**, Minsk, Belarus, 337-342.
32. Borovyi A., Konstantakos V., Kochan V., Turchenko V., Sachenko A., Laopoulos Th. Using Neural Network for the Evaluation of Power Consumption of Instructions Execution, *5<sup>th</sup> International Instrumentation and Measurement Technology Conference (I2MTC)*, **2008**, Vancouver Island, BC, Canada, 676-681.

33. Turchenko V., Paliy I., Demchuk V., Smal R., Legostaev L. Coarse-Grain Parallelization of Neural Network-Based Face Detection Method, *4<sup>th</sup> IEEE Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2007**, Dortmund, Germany, 155-158.
34. Turchenko V., Demchuk V., Sachenko A. Interplanetary Shock Arrival Time Prediction Using Multi-Layer Perceptron, *4<sup>th</sup> IEEE Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2007**, Dortmund, Germany, 185-190.
35. Palagin A., Alishov N., Markowsky G., Sachenko A., Turchenko V. Security Tools for GRID-Systems, *2007 International Conference on Security & Management (SAM)*, **2007**, Las Vegas, NV, USA, 467-473.
36. Turchenko V., Demchuk V., Sachenko A., Veremeyenko Y. An Approach to Interplanetary Shocks Prediction Using Single ACE/EPAM Channel Data, *4<sup>th</sup> International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **2006**, Brest, Belarus, 140-144.
37. Turchenko V. Fine-Grain Parallelization of Recurrent Neural Networks Training, *International Conference "Modern Problems of Radio-Engineering, Telecommunications and Computer Science" (TCSET)*, **2006**, Lviv-Slavsko, Ukraine, 208-211.
38. Turchenko V., Triki C., Grandinetti L., Sachenko A. Parallel Algorithm of Enhanced Historical Data Integration Using Neural Networks, *3<sup>rd</sup> IEEE Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2005**, Sofia, Bulgaria, 66-73.
39. Turchenko V. Static Mapping of Integrating Historical Data Neural Networks on Parallel Computer, *16<sup>th</sup> IASTED International Conference on Parallel and Distributed Computing and Systems*, **2004**, Cambridge, MA, USA, 884-889.
40. Turchenko V., Turchenko I., Kochan V., Bykovyy P., Sachenko A., Markowsky G. Database Design for CAD System Optimizing Distributed Sensor Networks for Perimeter Security, *8<sup>th</sup> IASTED International Conference Software Engineering and Applications*, **2004**, Cambridge, MA, USA, 59-64.
41. Paliy I., Turchenko V., Koval V., Sachenko A., Markowsky G. Approach to Recognition of License Plate Numbers Using Neural Networks, *International Joint Conference on Neural Networks (IJCNN)*, **2004**, Budapest, Hungary, 2965-2970.
42. Turchenko V. Parallel Training of Integration Historical Data Neural Networks on High-Performance Cluster System, *3<sup>rd</sup> International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **2003**, Minsk, Belarus, 116-119.
43. Koval V., Turchenko V., Kochan V., Sachenko A., Markowsky G. Smart License Plate Recognition System Based on Image Processing Using Neural Network, *2<sup>nd</sup> IEEE International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2003**, Lviv, Ukraine, 123-127.
44. Turchenko V., Sachenko A., Triki C. Parallel Neural Networks Training on High Performance Computer, *NATO Advanced Research Workshop "Concurrent Information Processing and Computing"*, **2003**, Sinaia, Romania, 231-237.
45. Turchenko V., Kochan V., Koval V., Sachenko A., Markowsky G. Smart Vehicle Screening System Using Artificial Intelligence Methods, *2003 Spring IEEE Conference on Technologies for Homeland Security*, **2003**, Cambridge, MA, 182-185.
46. Kochan R., Kochan V., Sachenko A., Turchenko V. Development of DAQ Module for Intelligent Sensor System, *ISA/IEEE Sensors for Industry Conference (SICON)*, **2002**, Houston, USA, 89-92.
47. Turchenko V., Kochan V., Sachenko A., Koval V. Advanced Sensor Data Integration Using Neural Networks, *28<sup>th</sup> Annual International Conference on Industrial Electronics, Control and Instrumentation (IECON)*, **2002**, Sevilla, Spain, vol. 3, 1876-1880.
48. Turchenko V., Triki C., Sachenko A. Approach to Parallel Training of Integration Historical Data Neural Networks, *20<sup>th</sup> IASTED International Multi-Conference Applied Informatics*, **2002**, Innsbruck, Austria, 254-258.
49. Turchenko V., Kochan V., Sachenko A. Neural-Based Data Processing in Intelligent Distributed Sensor Network, *International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **2001**, Minsk, Belarus, 193-198.
50. Koval V., Turchenko V., Kochan V., Sachenko A., Laopoulos Th. Reducing of an Impulse Noise Influence on A/D Conversion Results Using Neural Networks, *6<sup>th</sup> Euro Workshop on ADC Modelling and Testing (EWADC)*, **2001**, Lisbon, Portugal, 138-141.
51. Turchenko V., Kochan V., Sachenko A., Laopoulos Th. The New Method of Historical Data Integration Using Neural Networks, *International Workshop on Intelligent Data Acquisition and Advanced Computing Systems (IDAACS)*, **2001**, Foros, Ukraine, 21-24.
52. Sachenko A., Kochan V., Kochan R., Turchenko V., Tsahouridis K., Laopoulos Th. Error Compensation in an Intelligent Sensing Instrumentation System, *18<sup>th</sup> IEEE Instrumentation and Measurement Technology Conference (IMTC)*, **2001**, Budapest, Hungary, 869-874.
53. Sachenko A., Kochan V., Turchenko V., Golovko V., Savitsky Y., Dunets A., Laopoulos Th. Sensor Errors Prediction Using Neural Networks, *IEEE-INNS-ENNS International Joint Conference on Neural Networks (IJCNN)*, **2000**, Como, Italy, vol. IV, 441-446.
54. Sachenko A., Kochan V., Turchenko V., Laopoulos Th., Golovko V. Intelligent Node for Sensor Signal Processing, *2000 IEEE Nordic Signal Processing Symposium (NORSIG)*, **2000**, Linkoping, Sweden, 367-370.
55. Sachenko A., Kochan V., Turchenko V., Laopoulos Th., Golovko V., Grandinetti L. Features of Intelligent Distributed Sensor Network Higher Level Development, *17<sup>th</sup> IEEE Instrumentation and Measurement Technology Conference (IMTC)*, **2000**, Baltimore, USA, 335-340.

56. Sachenko A., Kochan V., Turchenko V. Sensor Drift Prediction Using Neural Networks, *International Workshop on Virtual and Intelligent Measurement Systems (VIMS)*, **2000**, Annapolis, USA, 88-92.
57. Golovko V., Savitsky Y., Sachenko A., Kochan V., Turchenko V., Laopoulos Th., Grandinetti L. Intelligent System for Prediction of Sensor Drift, *International Conference on Neural Networks and Artificial Intelligence (ICNNAI)*, **1999**, Brest, Belarus, 126-135.
58. Golovko V., Grandinetti L., Kochan V., Laopoulos Th, Sachenko A., Turchenko V. Sensor Signal Processing Using Neural Networks, *IEEE Region 8 International Conference (Africon)*, **1999**, Cape Town, South Africa, 339-344.
59. Sachenko A., Kochan V., Turchenko V., Golovko V., Laopoulos Th. Using Neural Networks for Decreasing ADC Error, *4<sup>th</sup> IMEKO International Workshop on ADC Modeling and Testing*, **1999**, Bordeaux, France, 78-81.
60. Golovko V., Grandinetti L., Kochan V., Laopoulos Th., Sachenko A., Turchenko V., Tymchyshyn V. Approach of an Intelligent Sensing Instrumentation Structure Development, *IEEE International Workshop on Intelligent Signal Processing (WISP)*, **1999**, Budapest, Hungary, 336-341.
61. Sachenko A., Kochan V., Turchenko V., Vasylykiv N. Intelligent System of Temperature Measurement, *7<sup>th</sup> International Symposium on Temperature and Thermal Measurements in Industry and Science (TEMPMEKO)*, **1999**, Delft, the Netherlands, 332-337.
62. Sachenko A., Kochan V., Turchenko V., Tymchyshyn V., Vasylykiv N. Intelligent Nodes for Distributed Sensor Network, *16<sup>th</sup> IEEE Instrumentation and Measurement Technology Conference (IMTC)*, **1999**, Venice, Italy, vol. 3, 1479-1484.
63. Sachenko A., Kochan V., Turchenko V. Intelligent Distributed Sensor Network, *15<sup>th</sup> IEEE Instrumentation and Measurement Technology Conference (IMTC)*, **1998**, St. Paul, USA, 60-66.

*D. Per-reviewed (not Scopus-indexed) journals*

64. Turchenko V., Shultz V., Turchenko I., Wallace R.M., Sheikhalishahi M., Vazquez-Poletti J.L., Grandinetti L. Spot Price Prediction for Cloud Computing Using Neural Networks, *International Journal of Computing*, 12 (4) **2013**, 348-359.
65. Markowsky G., Sachenko A., Voznyak S., Spilchuk V., Romanyak R., Turchenko V., Romanets I. The Ternopil Educational Communication Center – a NATO Project to Integrate Regional Information Technology Resources, *International Journal of Computing*, 7 (1) **2008**, 185-190.
66. Turchenko V. An Approach to IP Shock Arrival Time Prediction Using Approximating Neural Network, *International Journal of Information Technology and Intelligent Computing*, 1 (4) **2006**, 799-813.
67. Turchenko V., Demchuk V., Sachenko A. Simulation Modeling of Interplanetary Shocks Arrival Time Prediction on Historical Data Set, *International Journal of Computing*, 5 (3) **2006**, 135-140.
68. Turchenko V., Triki C., Grandinetti L., Sachenko A. Efficiency Estimation of Parallel Algorithm of Enhanced Historical Data Integration on Computational Grid, *International Journal of Computing*, 4 (3) **2005**, 9-19.
69. Turchenko V., Demchuk V. Efficiency Analysis of Parallel Routine Using Processor Time Visualization, *International Journal of Computing*, 4 (1) **2005**, 12-18.
70. Koval V., Turchenko V., Kochan V., Sachenko A., Markowsky G. Smart License Plate Recognition System Based on Image Processing Using Neural Network, *International Journal of Computing*, 2 (2) **2003**, 40-46.

*E. Patents*

71. Patent #50380 Ukraine, IPC 7 G06F15/18. Method of the training set formation for neural network predicting drift of data acquisition device / A.Sachenko (UA), V.Kochan (UA), V.Turchenko (UA), V.Golovko (BY), J.Savitsky (BY), T.Laopoulos (GR). – Filled 04 Jan 2000; Issued 15 Nov **2002**. – 14 p.

**Reviewing activity**

<b>2015 – present</b>	Computational and Applied Mathematics, Springer
<b>2014 – present</b>	Euromicro International Conference on Parallel, Distributed and Network-Based Processing (PDP)
<b>2014 – present</b>	Fulbright office in Ukraine, Student & Faculty Development & Scholar Programs
<b>2012 – present</b>	Neurocomputing, Elsevier
<b>2012 – present</b>	Neural Processing Letters, Elsevier
<b>2012 – present</b>	IEEE International Conference on Fuzzy Systems (FUZZ-IEEE)
<b>2010 – present</b>	INNS-IEEE International Joint Conference on Neural Networks (IJCNN)
<b>2007 – present</b>	IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems
<b>2006 – present</b>	International Conference on Neural Networks and Artificial Intelligence (ICNNAI)
<b>2004 – present</b>	International Journal of Computing, Ukraine, <a href="http://www.computingonline.net">http://www.computingonline.net</a>
<b>2013 – 2014</b>	IEEE Symposium Series on Computational Intelligence (SSCI)
<b>2013 – 2014</b>	IEEE Systems
<b>2012 – 2014</b>	IEEE International Congress on Evolutionary Computation (CEC)
<b>2011 – 2014</b>	IEEE International Symposium on Medical Measurement and Applications (MeMeA)
<b>2010 – 2011</b>	Computer Standards and Interfaces, Elsevier
<b>2009</b>	Optimization Methods and Software, Taylor & Francis

<b>2006</b>	IEEE International Instrumentation and Measurement Technology Conference (IMTC)
<b>2005 – 2006</b>	Future Generation Computing Systems, Elsevier
<b>2003 – 2004</b>	Measurement, Elsevier

#### Courses for B.Sc. and M.Sc. students

<b>2013 – 2014</b>	Neural Networks	TNEU, Ukraine
<b>2013 – 2014</b>	Evolutionary Algorithms	TNEU, Ukraine
<b>2013 – 2014</b>	Parallel and Distributed Computing	TNEU, Ukraine
<b>2013 – 2014</b>	Technologies for Distributed Systems and Parallel Computing	TNEU, Ukraine
<b>2004 – 2009</b>	Theory of Neural Networks	TNEU, Ukraine
<b>2005 – 2009</b>	Parallel and Distributed Computing	TNEU, Ukraine
<b>2002 – 2009</b>	Training Course on International Projects: Preparing and Management	TNEU, Ukraine
<b>2001 – 2009</b>	Neural Networks Techniques and Genetic Algorithms	TANE, Ukraine
<b>2001 – 2002</b>	Intelligent Systems and Networks	TANE, Ukraine
<b>2000 – 2004</b>	System Programming and System Software	TANE, Ukraine
<b>2000 – 2002</b>	Reliability, Diagnostics, Control and Exploitation of Computers	TANE, Ukraine
<b>2000 – 2002</b>	Scientific and Research Work of Students	TANE, Ukraine
<b>1996 – 2000</b>	Operation Systems and System Programming	TANE, Ukraine

#### Selected supervised B.Sc. and M.Sc. students (mostly at TNEU and TANE)

<b>2015</b>	B.Sc.	Mr. U.D. Anota	Software Module of Multi-Layer Perceptron for Recognition Tasks in Matlab
<b>2015</b>	B.Sc.	Mr. N.I. Adeyeye	Prediction Software Module Based on Multi-Layer Perceptron in Matlab
<b>2015</b>	B.Sc.	Ms. O. Dunets	Software Module of Parallel Recurrent Neural Network in Matlab
<b>2014</b>	B.Sc.	Ms. A. Maliki	Module for Exchange Rate Prediction of Nigerian Naira to US Dollar using Neural Networks
<b>2012</b>	M.Sc.	Mr. V. Shults	Efficiency of Resource Brokering in Heterogeneous Grid-Systems
<b>2011</b>	B.Sc.	Mr. F. Rizzo	Detection of Micro Nucleus in Human Lymphocytes by Convolution Neural Network and Pattern Matching (co-supervising), University of Calabria, Italy
<b>2010</b>	B.Sc.	Ms. V. Marinaro	Neural Network: an Approach to Predict Stock Prices (co-supervising), University of Calabria, Italy
<b>2008</b>	M.Sc.	Mr. L. Legostaev	Grid-middleware Research Based on SMP-computers
<b>2007</b>	M.Sc.	Mr. V. Mayor	Development of a Web-interface Client of Hypermarket Customer
<b>2007</b>	M.Sc.	Mr. M. Polyovyy	Development of a System for Loan Risk Analysis Based on Artificial Neural Networks
<b>2007</b>	M.Sc.	Mr. A. Sheremenda	Pattern Recognition Systems Using Artificial Neural Networks
<b>2007</b>	M.Sc.	Mr. R. Smal	Research of Globus Grid-technology for Building Computational Clusters
<b>2006</b>	B.Sc.	Mr. A. Osadchyy	Development of an Interpreter for C Programming Language with User Debugging and Language Extensions
<b>2005</b>	B.Sc.	Mr. P. Bykovyy	CAD for Automation of Perimeter Security Systems Design
<b>2005</b>	B.Sc.	Mr. V. Demchuk	Tools for Processor Time Visualization of Parallel Routines
<b>2002</b>	B.Sc.	Mr. I. Paliy	Information System for Prediction of Financial Data of Internet Service Provider Using Neural Networks
<b>2002</b>	B.Sc.	Mr. V. Polishchuk	Development of a Fingerprint Recognition System based on Artificial Neural Networks
<b>2001</b>	B.Sc.	Mr. A. Bazanov	Modelling System for Predicting Neural Networks

#### Ph.D. students

<b>2008, Sep</b>	Official opponent of Ph.D. Thesis of Mr. I. Galeliuka, Kyiv, Ukraine
<b>2007, Jun</b>	Official opponent of Ph.D. Thesis of Mr. A. Cheptsov, Kyiv, Ukraine
<b>2002 – 2009</b>	Reviewer of 21 Ph.D. thesis's in Computer Science at Council K58.082.02
<b>2002 – 2009</b>	Member of the Ph.D. Specialized Scientific Council K58.082.02 in Computer Science, School of Computer Information Technologies, TNEU, Ukraine

#### Awards, honors, other research and education activities

<b>2013 – present</b>	Fulbright Alumni, member of Ukrainian Fulbright Circle association
<b>2010 – present</b>	Member of Marie Curie Fellows Association
<b>2009 – present</b>	Executive Editor (Deputy Editor-in-Chief in past), International Journal of Computing, Ukraine, <a href="http://www.computingonline.net/eng/editorial.htm">http://www.computingonline.net/eng/editorial.htm</a>

<b>2001 – present</b>	Vice-Chair and Member of the Organizing Committee for the IEEE International Conferences on Intelligent Data Acquisition and Advanced Computing Systems IDAACS'2001 (Foros, Ukraine), IDAACS'2003 (Lviv, Ukraine), IDAACS'2005 (Sofia, Bulgaria), IDAACS'2007 (Dortmund, Germany), IDAACS'2009 (Rende, Italy), IDAACS'2011 (Prague, Czech Republic), IDAACS'2013 (Berlin, Germany), IDAACS'2015 (Warsaw, Poland)
<b>1999 – present</b>	Member of IEEE
<b>1999 – present</b>	56 international research visits and participations in international scientific conferences
<b>2015, Mar 4-6</b>	Organizer of the Special Session on Parallel Computing for Neural Systems (PaCNeS) as a part of 23 <sup>rd</sup> Euromicro International Conference on Parallel, Distributed and Network-Based Processing PDP 2015 (Turku, Finland), <a href="http://www.pdp2015.org/specialsessions/pacnes/pacnes.html">http://www.pdp2015.org/specialsessions/pacnes/pacnes.html</a>
<b>2014, Jul 21-25</b>	Organizer and Chair of the International Workshop on Parallel Computations for Neural Networks (PCNN 2014) as part of the International Conference on High Performance Computing & Simulation HPCS 2014 (Bologna, Italy), <a href="http://hpcs2014.cisedu.info/2-conference/workshops/workshop-25-pcnn">http://hpcs2014.cisedu.info/2-conference/workshops/workshop-25-pcnn</a>
<b>2013, Sep 13-14</b>	Organizer and Chair of the High Performance Computing Stream, Vice-Chair, the 7 <sup>th</sup> IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems IDAACS'2011 (Berlin, Germany), <a href="http://idaacs.net/2013/wp-content/uploads/2013/09/CTP_FINAL_IDAACS2013.pdf">http://idaacs.net/2013/wp-content/uploads/2013/09/CTP_FINAL_IDAACS2013.pdf</a>
<b>2012</b>	Supervising M.Sc. thesis and teaching excellence award, TNEU, Ukraine
<b>2009 – 2010</b>	Member of ACM
<b>2009 – 2010</b>	Member of Organizing Committee of the International Advanced Research Workshop “High Performance Computing, Grids and Clouds” (Cetraro, Italy)
<b>2007 – 2009</b>	Research Honor Stipend from a Prime Minister of Ukrainian Government, Ukraine
<b>2006 – 2009</b>	Scientific Secretary of Research Institute for Intelligent Computer Systems, TNEU, Ukraine
<b>2005 - 2008</b>	Deputy Dean on International Relations, School of Computer Information Technologies, TNEU, Ukraine
<b>2001 - 2012</b>	Chair of a conference session at the HPCS'2012, IDAACS'2011, HPCS'2010, ANNIIP'2009, IDAACS'2007, ICNNAI'2006, IDAACS'2005, ICNNAI'2003, IDAACS'2003, ICNNAI'2001

### References

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