

Adrian Horzyk

Associate Professor



Personal Info

Date of birth

1973-04-28

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WWW

home.agh.edu.pl/~horzyk/index-eng.php

Social media

Goldenline

www.goldenline.pl/www.goldenline.pl/adrian-horzyk/

Skills

Programming in object oriented languages: C#, C++, C, Python, Pascal, Java Script, PHP, HTML, SQL

Conducting university courses focused on the main research interests: artificial intelligence, machine learning, data mining, knowledge engineering, cognitive and associative systems,

Experience

2002-02 **AGH University of Science and Technology in Krakow, Department of Automatics and Biomedical Engineering**

Assistant and Associate Professor

Conducting research in artificial intelligence, computational intelligence, knowledge engineering, data mining, cognitive and associative systems.

Offering courses in the field of artificial intelligence, computational intelligence, knowledge engineering, data mining, associative systems, databases, biocybernetics, computer science, programming languages, data structures, design of websites, teamwork, network security, ABI psychology and negotiation.

Supporting and developing the scientific staff by carrying out a lot of Engineering, Masters', and doctoral dissertations, reviews.

Participation and management in Recruitment commissions, research, quality education, diplomas, Ph.D., and Habilitation.

Conducting scientific projects and performing research tasks.

Foreseen, participation in scientific conferences and dissemination of solutions. Preparation of scientific publications.

2011-11 **Polish Neural Networks Society (PTSN)**

Board Member

A national association dedicated to the popularization and promotion of modern computational methods in the field of neural networks, artificial intelligence, and computational intelligence.

2009-11 **Polish Association of Artificial Intelligence**

Member and Co-founder

Association promoting the use of artificial intelligence and computational intelligence.

Education

2002-02 - **AGH University of Science and Technology in Krakow, Computer Science, Artificial Intelligence, Habilitation**

Habilitation thesis in the field of artificial intelligence and computer science titled: "Artificial Associative Systems and Associative Artificial Intelligence", reviews and reviews available at <http://home.agh.edu.pl/~horzyk/papers/ah2013horzyk1.php>. Research and academic achievement have fueled new computational methods and techniques, as well as neural data structures inspired by modern neurophysiology and human brain science, to map and model associative and cognitive mechanisms in functional and efficient computational models.

1997-10 - **AGH University of Science and Technology in Krakow, Computer Science, Artificial Intelligence, Ph.D.**

Ph.D. thesis in the field of artificial intelligence and computer science titled: "New methods of learning neural networks without feedback", the dissertation with honors, promoter and tutor of the work: prof. dr hab. eng. Ryszard Tadeusiewicz. Scientific research concerned the development of new computational methods using neural networks and their application to the solution of selected issues.

1991-10 - **Jagiellonian University, Computer Science, Master's degree**

The Master's thesis concerned the use of neural networks to recognize selected features of patterns.

Languages

English - level C1



German - level B2



Czech - level C2



Polish - level C2



Slovak - level C1



Russian - level B1



Interests

The basic passion is learning, acquiring knowledge, understanding, understanding the phenomena of the world around us, research, modern solutions and their implementation.

Sports: pink-pong, billiards, cycling, skating, roller skating, swimming, and swimming.

Dance in the field of social and Latin-American dances.

Musical instruments: guitar, composing your own songs and songs, poetry.

Games: mainly logical and strategic, such as chess, but not limited to them.

Publications

- 2017 A. Horzyk, Neurons Can Sort Data Efficiently, Proc. of ICAISC 2017, Springer-Verlag, LNAI, 2017 - ICAISC 2017 Best Paper Award
- 2017 A. Horzyk, J. A. Starzyk, J. Graham, Integration of Semantic and Episodic Memories, IEEE Transactions on Neural Networks and Learning Systems, 2017, DOI: 10.1109/TNNLS.2017.2728203
- 2016 A. Horzyk, J. A. Starzyk and Basawaraj, Emergent creativity in declarative memories, IEEE Xplore, In: 2016 IEEE Symposium Series on Computational Intelligence, Greece, Athens: Institute of Electrical and Electronics Engineers, Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA, 2016, ISBN 978-1-5090-4239-5, pp. 1-8, DOI: 10.1109/SSCI.2016.7850029.
- 2016 A. Horzyk, Human-Like Knowledge Engineering, Generalization and Creativity in Artificial Neural Associative Systems, Springer-Verlag, AISC 11156, Springer, Switzerland, 2016, pp. 39-51. DOI: 10.1007/978-3-319-19090-7_4
- 2015 A. Horzyk, Innovative types and abilities of neural networks based on associative mechanisms and a new associative model of neurons - the invited talk and paper at the International Conference ICAISC 2015, Springer-Verlag, LNAI 9119, 2015, pp. 26-38, DOI 10.1007/978-3-319-19324-3_3
- 2014 A. Horzyk, How Does Generalization and Creativity Come into Being in Neural Associative Systems and How Does It Form Human-Like Knowledge? (language: English), Elsevier, Neurocomputing, 2014, pp. 238-257, DOI: 10.1016/j.neucom.2014.04.046

I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the Personal Data Protection Act as of 29 August 1997, consolidated text: Journal of Laws 2016, item 922 as amended.