Name/ Birth year	Adrian Horzyk / 1973
Title (year degree	Ph. D. Computer Science (2001) / assistant professor
obtained) / Prof.	DSc. Computer Science (2014) / associate professor
status	
$Address^{1}$	AGH University of Krakow
	Mickiewicza Av. 30, 30-059 Krakow, Poland
	horzyk@agh.edu.pl
	ORCID: 0000-0001-9001-4198
Area of expertise <sup>2</sup>	artificial intelligence (AI), computational intelligence (CI), machine learning (ML), data
	mining (DM), knowledge engineering (KE), associative artificial intelligence (AAI)
Relevant (best)	1. Damian Bulanda, Janusz A. Starzyk, Adrian Horzyk, FlexPoints: Efficient
publications <sup>3</sup>	electrocardiogram signal compression for machine learning, ELSEVIER, Journal of
	Electrocardiology, Volume 88, 2025, ISSN 0022-0736,
	https://doi.org/10.1016/j.jelectrocard.2024.153825
	2. Igor Ratajczyk, Adrian Horzyk, Igor Ratajczyk, Adrian Horzyk, Advancing ConvNet
	Architectures: A Novel XGB-based Pruning Algorithm for Transfer Learning Efficiency,
	Proc. of ECAI 2024, Volume 392, Frontiers in Artificial Intelligence and Applications,
	2024, pp. 2114–2121
	3. Adrian Horzyk, Daniel Bulanda, and Janusz A. Starzyk, Construction and Iraining of Multi Accordiative Graph Nativerka, Machine Learning and Knowladge Discovery in
	Detebases: Basearch Treak European Conference ECML DKDD 2022 Turin Italy
	Sontomber 18, 22, 2023, Proceedings, Part III, LNCS 14171, Chapter 17, Springer, 2023
	pp 277-292
	4 I A Starzyk M Jaszuk Ł Maciura A Horzyk Concurrent Associative Memories with
	Synaptic Delays IEEE Transactions on Neural Networks and Learning Systems DOI
	10.1109/TNNLS.2020.3041048. Accepted and Preview Dec. 2020. published Aug. 2021.
	Vol. 32. Issue 8. pp. 3736 – 3747
	5. A. Horzyk, D. Bulanda, J. A. Starzyk, ASA-graphs for Efficient Data Representation and
	Processing, International Journal of Applied Mathematics and Computer Science
	(AMCS), Vol. 30, No. 4, 2020, pp. 717 - 731, DOI 10.34768/amcs-2020-0053
	6. J. A. Starzyk, Ł. Maciura, A. Horzyk, Associative Memories with Synaptic Delays, IEEE
	Transactions on Neural Networks and Learning Systems, Vol. 31, Issue 1, Jan. 2020, pp.
	331 - 344, DOI: 10.1109/TNNLS.2019.2921143 (TNNLS-2018-P-9188)
	7. S. Acharya, [et al.], B. Baliś, [et al.], M. Gorgoń, [et al.], A. Horzyk, [et al.], M.
	Jabłoński, [et al.], J.P. Kitowski, [et al.], P.J. Konopka, [et al.], S.D. Koryciak, [et al.],
	P.G. Russek, [et al.], Direct observation of the dead-cone effect in quantum
	chromodynamics, Nature, Vol. 605, pp. 440–446, May 2022, DOI: 10.1038/s41586-022-
	04572-w.
	8. Basawaraj, J. A. Starzyk, A. Horzyk, Episodic Memory in Minicolumn Associative
	Knowledge Graphs, IEEE Transactions on Neural Networks and Learning Systems, Vol.
	30, Issue 11, Nov. 2019, pp. 3505-3516, DOI: 10.1109/TNNLS.2019.2927106
	9. A. Horzyk, J. A. Starzyk, J. Graham, Integration of Semantic and Episodic Memories,
	IEEE Transactions on Neural Networks and Learning Systems, Vol. 28, Issue 12, Dec. 2017 nr 2024 2005 DOI: 10.1100/TNNL S.2017.2728202
	2017, pp. $5064 - 5095$ , DOI. 10.1109/11NNLS.2017.2726205
Othar	i. https://home.agn.edu.pi/~noizyk/anpuolications.php
Other'	didactic responsibilities
	Computational Intelligence
	Artificial Intelligence and Machine Learning in Biomedicine
	Knowledge-based Computational Intelligence and Data Mining in Biomedicine
	Deep and Graph Neural Networks

## Qualifications of the individual for defining area of expertise in Biosignal Group

<sup>&</sup>lt;sup>1</sup> Organisation, street address, telephone, email, web page <sup>2</sup> With keywords characterising your field(-s) of expertise <sup>3</sup> Max. 10

<sup>&</sup>lt;sup>4</sup> List didactic, major grants, conference responsibilities, professional recognitions, memberships, journals, patents, etc.

<i>major grants</i> Title: Innovative methods of deep learning to detect anomalies based on the teaching and representation of normality features; Task: Outlier detection for time-series data based on the normality representation Period: 2023-2027 Centre: AGH University of Krakow Funds: Funded by National Science Centre, Poland, ARTIQ/0004/2021 Number of persons: many
Title: MENTALIO – diagnostic and therapeutic decision support system in the field of teenage mental health based on artificial intelligence algorithms Period: 2022 - 2024 Centre: Nivalit Funds: Medical Research Agency, 3.768.206 PLN Number of persons: many
Title: The use of associative-cognitive deep neural networks for modeling knowledge, prediction and classification in the area of pathophysiology of heart diseases Period: 2021-2023 Centre: AGH University of Krakow Funds: IDUB, 400.000 PLN Number of persons: 4
<ul> <li>memberships</li> <li>Member of the International Neural Network Society (INNS) No 3447 since 2024-08-22</li> <li>Member of the Polish Academy of Sciences Biocybernetics and Biomedical Engineering Committee in 2020 - 2023.</li> <li>Member of the Asia Pacific Neural Network Society (APNNS) No 231895 since 2023-09-06</li> <li>Member of the Polish Section of the IEEE Association since 2020-03-05</li> <li>IEEE Member No 93112804 since 2018, IEEE Senior Member since 2018.</li> <li>ENNS Member 2018. (European Neural Network Society)</li> <li>INSTICC Member no 14562 since 2017.</li> <li>Board Member of the Polish Neural Network Society (INNS)</li> <li>Member and co-founder of the Polish Association for Artificial Intelligence (PSSI), the member of the European Association for Artificial Intelligence (EurAI), associated with the European Coordination Committee on Artificial Intelligence since 2009-11-27.</li> </ul>
<ul> <li>reviewer for papers submitted to</li> <li>International Journal of Applied Mathematics and Computer Science (AMCS), reviewer since 2015</li> <li>Image Processing and Communication since 2015</li> <li>IEEE Transactions on Neural Network and Learning Systems, reviewer since 2012</li> <li>Journal of Computing and Informatics, reviewer since 2009</li> <li>Polish Society of Computer Science, reviewer since 2009</li> <li>Elsevier Neurocomputing, reviewer since 2004</li> </ul>