

Qualifications of the individual for defining area of expertise

<i>Name/ Birth year</i>	Magdalena Szymczyk / 1964
<i>Title (year degree obtained) / Prof. status</i>	Ph. D. EE. (1999) / research scientist
<i>Address¹</i>	AGH University of Science and Technology, 30, Mickiewicza Ave. 30-059 Krakow, Poland Magdalena.Szymczyk@agh.edu.pl , http://home.agh.edu.pl/mszymcz
<i>Area of expertise²</i>	parallel computing programming of embedded systems, reliability and security of embedded systems
<i>Relevant (best) publications³</i>	1. Szymczyk M., Augustyniak P.: Selected energy consumption aspects of sensor data transmission in distributed multi-microcontroller embedded systems; Electronics; ISSN 2079-9292. — 2022 vol. 11 iss. 6 art. no. 848, s. 1-17. — Online from: 2022-03-08. 2. Szymczyk M., Szymczyk P.: Automatic processing of Z-transform artificial neural networks using parallel programming, Neurocomputing; ISSN 0925-2312. - 2020 Vol. 379, s. 74-88 (LF) (IF2019 4.072) (Pkt. MNiSW 2019 = 100) 3. Szymczyk P., Szymczyk M.: Identification of dynamic object using Z-Transform artificial neural network, Neurocomputing; ISSN 0925-2312. - 2018 vol. 312, s. 382-389 (LF) (IF2017 3.241) (Pkt. MNiSW = 30) 4. Szymczyk M., Szymczyk P.: Neural networks based method for automatic classification of GPR data , COMPUTATIONAL TECHNOLOGIES IN ENGINEERING (TKI'2018): Proceedings of the 15th Conference on Computational Technologies in Engineering, AIP Conference Proceedings ISBN: 978-0-7354-1806-6, 2019 vol. 2078, s. 020014-1 - 020014-8 (WoS) (Pkt. MNiSW = 15) 5. Szymczyk P., Szymczyk M.: Classification of geological structure using ground penetrating radar and Laplace transform artificial neural networks, Neurocomputing ; ISSN 0925-2312. - 2015 vol. 148, s. 354-362. (LF) (IF2014 2.083) (Pkt. MNiSW = 30) 6. Szymczyk P., Szymczyk M.: Supervised learning Laplace transform artificial neural networks and using it for automatic classification of geological structure, Neurocomputing ; ISSN 0925-2312. - 2015 vol. 154, s. 70-76. (LF) (IF2014 2.083) (Pkt. MNiSW = 30) 7. Szymczyk P., Szymczyk M.: Non-destructive building investigation through analysis of GPR signal by S-transform, Automation in Construction ; ISSN 0926-5805. - 2015 vol. 55, s. 35-46. (LF) (IF2014 1.812) (Pkt. MNiSW = 40) 8. Szymczyk P., Tomecka-Suchoń S., Szymczyk M.: Neural networks as a tool for georadar data processing, Int. J. Appl. Math. Comput. Sci., 2015, Vol. 25, No. 4, 955-960; ISSN: 1641-876X (print), 2083-8492 (online) (IF2014 1,227) (Pkt. MNiSW = 25) 9. Szymczyk M., Szymczyk P.: Reliability of Cluster System with a Lot of Software Instances Lecture Notes in Computer Science, Computational Science - ICCS2004, Part 1, str. 417-420, Springer-Verlag Berlin 2004. (IF2004 0.513) 10. Piotr SZYMCHYK: Systemy operacyjne czasu rzeczywistego, Wydawnictwa AGH Kraków 2003, ISBN 83-88408-24-0

¹ Organisation, street address, telephone, email, web page² With keywords characterising your field(-s) of expertise³ Max. 10

	11. Piotr SZYMCZYK, Henryk MARCAK, Sylwia TOMECKA-SUCHOŃ, Magdalena SZYMCZYK, Mirosław GAJER, Tomisław GOŁĘBIEWSKI: Komputerowe przetwarzanie i analiza danych georadarowych, Wydawnictwo Naukowe IAE, Kraków 2015, ISBN 978-83-65003-00-3 12. Kłyś M., Szymczyk P., Szymczyk M., Gajer M.: Parallel implementation of neural networks with the use of GPGPU technology OpenCL, Measurement Automation Monitoring (formerly: Pomiary Automatyka Kontrola) ; ISSN 0032-4140, Jan. 2015, vol. 61, no. 01, s. 16-20 (Pkt. MNiSW = 11) 13. Szymczyk M., Szymczyk P.: Preprocessing of GPR data, Image Processing and Communications, ISSN 1425-140X. - 2013 vol. 18 no. 2-3, s. 83-90. (Pkt. MNiSW = 8) 14. Szymczyk M., Szymczyk P.: Service Level Agreement for Outsourced Processes and Systems 12th International Conference Mixed Design of Integrated Circuits and Systems, Kraków 22-25 czerwiec 2005, Proceedings of 12th MIXDES 2005 Conference, Materiały konferencji, 2005, str. 635-638.																				
Publications statistics:	Google Scholar: Publications: 85, Citations: 126, H-index: 6																				
Other ⁴	Work experience at research institutions <table><tr><th>Data (from – to)</th><th>Institution</th><th>Position</th><th>Activities and responsibilities</th></tr><tr><td>From 01.05.1999</td><td>AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering, Department of Automatics and Biomedical Engineering</td><td>Assistant professor (adiunkt)</td><td>Research in the field of automatics and computer science</td></tr><tr><td>2004 - 2009</td><td>Bielsko-Biała School of Banking and Finances</td><td>Assistant professor (adiunkt)</td><td>Research in the field of computer science</td></tr><tr><td>01.10.1995 - 30.04.1997</td><td>AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics and Electronics Department of Automatics</td><td>Assistant (asystent)</td><td>Research in the field of automatics and computer science</td></tr><tr><td>01.10.1991 - 30.09.1995</td><td>AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics, and Electronics</td><td>Doctorate studies (unpaid leave of absence, scholarship)</td><td>Research in the field of computer science</td></tr></table> Participation in projects: Analiza cyfrowych danych georadarowych przy użyciu komputerowego przetwarzania i rozpoznawania obrazów dla oceny stanu technicznego wałów przeciwpowodziowych oraz wykrywania niebezpiecznych zmian w strefach przypowierzchniowych ośrodka geologicznego (Analysis of digital ground-penetrating radar data using computer processing and image recognition for the evaluation of technical conditions of river embankments and detecting of	Data (from – to)	Institution	Position	Activities and responsibilities	From 01.05.1999	AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics, Computer Science and Biomedical Engineering, Department of Automatics and Biomedical Engineering	Assistant professor (adiunkt)	Research in the field of automatics and computer science	2004 - 2009	Bielsko-Biała School of Banking and Finances	Assistant professor (adiunkt)	Research in the field of computer science	01.10.1995 - 30.04.1997	AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics and Electronics Department of Automatics	Assistant (asystent)	Research in the field of automatics and computer science	01.10.1991 - 30.09.1995	AGH University of Science and Technology, The Faculty of Electrical Engineering, Automatics, and Electronics	Doctorate studies (unpaid leave of absence, scholarship)	Research in the field of computer science
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⁴ List didactic, major grants, conference responsibilities, professional recognitions, memberships, journals, patents, etc.

	dangerous changes in near-surface zones of geological medium.) (NCN - no UMO-2011/01/B/ST7/06178) • Inteligentne, energooszczędne systemy sterowania orientowanymi systemami solarnymi (Smart, energy-efficient systems controlled by oriented solar systems) (NCN – no 6693/B/T02/2011/40) • System inteligentnego monitoringu przestrzeni i obiektów szczególnego znaczenia – SIMPOZ (Intelligent surveillance system for monitoring of important public spaces and buildings – SIMPOZ) (MNiSW no 0128/R/t00/20) Teaching – list of regular courses: • Informatyka (Computer Science) • Grafika komputerowa (Computer Graphics) • Architektury komputerów (Computer Architecture) • Algorytmy i struktury danych (Algorithms and Data Structures) • Programowanie Komputerów (Computer Programming) • Bazy danych (Database)
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