

Name: **Rafal Drezewski, Ph.D., D.Sc.**

University position: **Associate Professor**

Department/Institute/University: **Department of Computer Science, AGH University of Science and Technology, Krakow, Poland**

Research domain: **machine learning , bio-inspired artificial intelligence, multi-agent systems.**

Dr. Rafal Drezewski received the M.Sc. Eng. and Ph.D. degrees in Computer Science from the AGH University of Science and Technology, Cracow, Poland, in 1998 and 2005, respectively. In 2019 he received D.Sc. (Habilitation) in Technical Computer Science and Telecommunications from the AGH University of Science and Technology, Cracow, Poland. From 2006 to 2019, he was an Assistant Professor, and from 2019 he is an Associate Professor with the Department of Computer Science, AGH University of Science and Technology. He has authored over 60 papers. His main research interests include bio-inspired artificial intelligence, machine learning, multi-agent systems, evolutionary algorithms, multi-objective optimization, multi-modal optimization, computational economics, and agent-based modeling and simulation of complex and emergent phenomena. His Ph.D. thesis “Co-evolutionary techniques of optimization of multi-modal functions with the use of agent technology” and D.Sc. (Habilitation) entitled “The bio-inspired multi-agent systems” were both connected with the above research areas.

The most important publications from the recent 5 years include:

1. R. Drezewski, S. Kruk, M. Makowka (2018), “The Evolutionary Optimization of a Company's Return on Equity Factor: Towards the Agent-Based Bio-Inspired System Supporting Corporate Finance Decisions”, IEEE Access, Volume 6, Pages 51911–51930, 2018.
2. R. Drezewski, G. Dziuban, K. Pająk (2018), “The Bio-Inspired Optimization of Trading Strategies and Its Impact on the Efficient Market Hypothesis and Sustainable Development Strategies”, Sustainability, Volume 10, Number 5, pages 1-45, 2018.
3. R. Drezewski (2018), “The Agent-Based Model and Simulation of Sexual Selection and Pair Formation Mechanisms”, Entropy, Volume 20, Number 5, Pages 1-30, 2018.
4. R. Drezewski, K. Doroz (2017), “An Agent-Based Co-Evolutionary Multi-Objective Algorithm for Portfolio Optimization”, Symmetry, Volume 9, Number 9, Pages 1-31, 2017.
5. L. Siwik, R. Drezewski (2016), “Hierarchical and Massively Interactive Approaches for Hybridization of Evolutionary Computations and Agent Systems—Comparison in Financial Application”, in International Conference on Artificial Intelligence and Soft Computing, Pages 505–516, Springer, 2016.
6. L. Wilisowski, R. Drezewski (2015), “The Application of Co-Evolutionary Genetic Programming and TD (1) Reinforcement Learning in Large-Scale Strategy Game VCMI”, in Agent and Multi-Agent Systems: Technologies and Applications, Pages 81–93, Springer, 2015.
7. R. Drezewski, K. Cetnarowicz, G. Dziuban, S. Martynuska, A. Byrski (2015), “Agent-Based Neuro-Evolution Algorithm”, in Agent and Multi-Agent Systems: Technologies and Applications, Pages 95–108, Springer, 2015.
8. R. Drezewski, J. Sepielak, W. Filipkowski (2015), “The Application of Social Network Analysis Algorithms in a System Supporting Money Laundering Detection”, Information Sciences, Volume 295, Pages 18–32, 2015.
9. A. Byrski, R. Drezewski, L. Siwik, M. Kisiel-Dorohinicki (2015), “Evolutionary Multi-Agent Systems”, The Knowledge Engineering Review, Volume 30, Number 2, Pages 171–186, 2015.
10. L. Siwik, R. Drezewski (2014), “Evolutionary Multi-Modal Optimization with the use of Multi-Objective Techniques”, in International Conference on Artificial Intelligence and Soft Computing, Pages 428–439, Springer, 2014.

