

List of publications

Prof. dr. Gabriela (ȘERBAN) CZIBULA

I Research papers - 236

Ia Publications in Web of Science – 128

Publications in Science Citation Index Expanded - 46

The WoS quartile is computed using the AIS from the publication year

1. Șerban, G., Câmpan, A., Czibula, I.G., *A Programming Interface For Finding Relational Association Rules*, International Journal of Computers, Communications and Control, Vol. I/2006, Proceedings of the International Conference on Computers, Communications and Control, ICCCC 2006, Oradea, 2006, pp. 934-944
2. Dărbănt, A.S., Câmpan, A., Șerban, G., *Incremental Horizontal Fragmentation: A new Approach in the Design of Distributed Object Oriented Databases*, International Journal of Computers, Communications and Control, Vol. I/2006, Proceedings of the International Conference on Computers, Communications and Control, ICCCC 2006, Oradea, 2006, pp. 170-174
3. Câmpan, A., Șerban, G., *Adaptive Clustering Algorithms*, the 19th Canadian Conference on Artificial Intelligence, Canadian AI-2006, Quebec, Canada, 2006, in *Advances in Artificial Intelligence*, LNAI 4013, L. Lamontagne and M. Marchand (Eds.), Springer-Verlag Berlin Heidelberg 2006, pp. 409-420
4. Șerban, G., Câmpan A., *Hierarchical Adaptive Clustering*, Informatica, Vilnius, Lithuania, Vol. 19, No. 1, 2008, pp. 101-112
5. Czibula, I.G., Șerban, G., *Hierarchical clustering based design patterns Identification*, International Journal of Computers, Communications and Control, Vol. 3, Proceedings of the International Conference on Computers, Communications and Control, ICCCC 2008, Oradea, 2008, pp. 248-252
6. Tatar, D., Șerban, G., Mihis, A., Mihalcea R., *Textual Entailment as a Directional Relation*, Journal of Research and Practice in Information Technology, Vol. 41, Nr. 1, 2009, pp. 17-28
7. Czibula, G., Cojocar, G.S., *A hierarchical clustering based approach in aspect mining*, Computing and Informatics, Bratislava, Slovakia, Volume 29, No. 6, 2010, pp. 881-900
8. Czibula, G., Czibula, I.G., *Incremental Refactoring Using Seeds*, SIC Journal, Studies in Informatics and Control, Vol. 19, Issue. 3, 2010, pp. 271-284
9. Bocicor, M. I., Czibula, G., Czibula, I.G., *A Distributed Q-Learning Approach to Fragment Assembly*, SIC Journal, Studies in Informatics and Control, Vol. 20, Issue. 3, 2011, pp. 221-232
10. Czibula, G., Bocicor, M. I., Czibula, I.G., *Promoter Sequences Prediction Using Relational Association Rule Mining*, Evolutionary Bioinformatics, Vol. 8, 2012, pp. 181-196 (Q2)
11. Zsuzsanna Marian, Gabriela Czibula, Istvan Gergely Czibula, *Using Software Metrics for Automatic Software Design Improvement*, Studies in Informatics and Control, ISSN 1220-1766, vol. 21 (3), pp. 249-258, 2012

12. **Czibula, G.**, Czibula, I.G., *Unsupervised Restructuring of Object-Oriented Software Systems using Self-Organizing Feature Maps*, International Journal of Innovative Computing Information and Control, Japan, Volume 8, No. 3(A), 2012, pp. 1689-1704
13. **Czibula, G.**, Crişan C.G., Pinte, M.C, Czibula, I.G., *Soft computing approaches on the bandwidth problem*, Informatica, Vilnius, Lithuania, 2013, Vol. 24, No. 1, pp. 1–12
14. **Czibula, G.**, Czibula, I.G., Găceanu, R.D., *Intelligent Data Structures Selection using Neural Networks*, Knowledge and Information Systems, Volume 34, Issue 1, 2013, Page 171-192 (Q2)
15. **Czibula, G.**, Bocicor, M. I., Czibula, I.G., *Temporal Ordering of Cancer Microarray Data through a Reinforcement Learning Based Approach*, PloS One journal, 8(4): e60883, doi:10.1371/journal.pone.0060883, 2013 (Q1)
16. Doina Tatar, Diana Inkpen, **Gabriela Czibula**, Text segmentation using Roget-based weighted lexical chains, Computing and Informatics, Vol. 32, 2013, pp. 1001-1018
17. **Gabriela Czibula**, Istvan Gergely Czibula, *Software systems performance improvement by intelligent data structures customization*, Information Sciences, Vol. 274, 2014, pp. 249-260 (2018 IF=5.524, Q1)
18. **Gabriela Czibula**, Zsuzsanna Marian, Istvan Gergely Czibula, *Software Defect Prediction using Relational Association Rule Mining*, Information Sciences, Vol. 264, April 2014, pp. 260-278 (2018 IF=5.524, Q1)
19. **Czibula, G.**, Czibula, I.G., Găceanu, R.D., *A Support Vector Machine Model For Intelligent Selection of Data Representations*, Applied Soft Computing, Volume 18, May 2014, Pages 70–81 (Q2)
20. **Gabriela Czibula**, Zsuzsanna Marian, Istvan Gergely Czibula, *Detecting Software Design Defects Using Relational Association Rule Mining*, Knowledge and Information Systems, Vol. 42, Number 3, 2015, pp. 545-577 (Q2)
21. **Gabriela Czibula**, Istvan Gergely Czibula, Adela Sirbu, Ioan-Gabriela Mircea, *A novel approach to adaptive relational association rule mining*, Applied Soft Computing journal, Vol. 36, November 2015, pp. 519-533, 2015 (Q2)
22. **Gabriela Czibula**, Vlad-Sebastian Ionescu, Diana-Lucia Miholca, Ioan-Gabriel Mircea, *Machine learning based approaches for predicting stature of archaeological skeletal remains from long bone lengths*, Journal of Archaeological Science, vol. 65, pp. 85-99, 2016 (Q1)
23. Czibula, I.G., **Czibula, G.**, Marian, Zs., Ionescu, V.-S.A *Novel Approach Using Fuzzy Self-Organizing Maps for Detecting Software Faults*, Studies in Informatics and Control, ISSN 1220-1766, vol. 25 (2), pp.207-216, 2016
24. Miholca, D.L, **Czibula, G.**, Czibula, I.G, *A novel approach for software defect prediction through hybridizing gradual relational association rules with artificial neural networks*, Information Sciences 441C (2018), pp. 152-170 (Q1)
25. **Czibula, G.**, Czibula, I.G, Marian, Zs., *An effective approach for determining the class integration test order using reinforcement learning*, Applied Soft Computing 65C (2018) pp. 517-530 (Q2)
26. Albert, S., Teletin, M., **Czibula, G.**, *Analyzing Protein Data Using Unsupervised Learning Techniques*, International Journal of Innovative Computing, Information and Control, Volume 14, Number 3, June 2018, pp. 861-880
27. Czibula, I.G., **Czibula, G.**, Miholca, D.L., Oneţ-Marian, Zs., *An aggregated coupling measure for the analysis of object-oriented software systems*, Journal of Systems and Software, Volume 148, pp. 1-20, 2019 (Q2)

28. **Czibula, G.**, Czibula, I.G. Miholca, D.L., Crivei, M.L., *A novel concurrent relational association rule mining approach*, Expert systems with Applications, Vol. 125, pp. 142-156, 2019 (Q1)
29. **Czibula, G.**, Codre C., Teletin, M., *AnomalP: An approach for detecting anomalous protein conformations using deep autoencoders*, Expert systems with Applications, Volume 166, 15 March 2021, 114070, (Q1)
30. **Czibula, G.**, Andrei, M., Mihuleț, E., *NowDeepN: An ensemble of deep learning models for weather nowcasting based on radar products' values prediction*, Applied Sciences, Special Issue Applied Machine Learning, 2021, 11(1), 125
31. **Gabriela Czibula**, Alexandra Albu, Maria Iuliana Bocicor, Camelia Chira, *AutoPPI: An ensemble of deep autoencoders for protein-protein interaction prediction*, Entropy, Special issue on Computational Methods and Algorithms for Bioinformatics, 23(6), 643, 2021
32. **Czibula G.**, Mihai, A., Albu, A.-I., Czibula, I.G., Burcea, S. Mezghani, A., *AutoNowP: An approach using deep autoencoders for precipitation nowcasting based on weather radar reflectivity prediction*, Mathematics, 9(14):1653. Special Issue on Computational Optimizations for Machine Learning, 2021
33. Zsuzsanna Oneț-Marian , **Gabriela Czibula**, Mariana-Ioana Maier, *Using self-organizing maps for comparing students' academic performance in online and traditional learning environments*, Studies in Informatics and Control, vol. 30(4), pp. 31-42, 2021
34. Bratu A., **Czibula G.**, *DAuGAN: An approach for augmenting time series imbalanced datasets via latent space sampling using adversarial techniques*, Scientific Programming, Volume 2021, Article ID 7877590 <https://doi.org/10.1155/2021/7877590>
35. Nistor, S.C., **Czibula, G.**, *IntelliSwAS: Optimizing Deep Neural Network Architectures using a Particle Swarm-based Approach*, Expert systems with Applications, Volume 187, January 2022, 11594 (Q1)
36. Mariana-Ioana Maier, **Gabriela Czibula**, Zsuzsanna Oneț-Marian, *Towards Using Deep Autoencoders for Comparing Traditional and Synchronous Online Learning in Assessing Students' Academic Performance*, Mathematics, Engineering Mathematics - special issue on Didactics and Technology in Mathematical Education, 2021, 9(22), 2870
37. Diana-Lucia Miholca, Vlad-Ioan Tomescu, **Gabriela Czibula**, *An in-depth analysis of the software features' impact on the performance of deep learning-based software defect predictors*, IEEE Access, Volume 10, 64801 – 64818, 2022 (Q2)
38. **Gabriela Czibula**, Mihaiela Lupea, Anamaria Briciu, *Enhancing the performance of software authorship attribution using an ensemble of deep autoencoders*, Mathematics, Special Issue "Recent Advances in Artificial Intelligence and Machine Learning", 2022, 10(15):2572
39. **Gabriela Czibula**, George Ciubotariu, Mariana Maier, Hannelore-Inge Lisei, *IntelliDaM: A machine learning based framework for enhancing the performance of decision-making processes. A case study for educational data mining*, IEEE Access, Volume 10, 80651-80666, 2022 (Q2)
40. Albu, A.-I., **Czibula G.**, Mihai, A., Czibula, I.G., Burcea, S. Mezghani, A., *NeXtNow: A Convolutional Deep Learning Model for the Prediction of Weather Radar Data for Nowcasting Purposes*, Remote Sensing, Special Issue "Artificial Intelligence-Based Learning Approaches for Remote Sensing", 2022, 14(16), 3890 (Q2)

41. Ciubotariu, G, **Czibula, G.**, *MBMT-Net: A multitask learning based convolutional neural network architecture for dense tasks performance improvement*, IEEE Access, 2022, Volume 10, pages 125600 - 125615 (Q2)
42. Alexandra-Ioana Albu, Maria-Iuliana Bocicor, **Gabriela Czibula**, *MM-StackEns: A new deep multimodal stacked generalization approach for protein-protein interaction prediction*, Computers in biology and medicine, Vol. 153, 106526, 2023 (Q1)
43. Burcea, S., Mihuleț, E., Mihai, A., **Czibula, G.**, *Enhancing the Performance of Quantitative Precipitation Estimation Using Ensemble of Machine Learning Models Applied on Weather Radar Data*, Atmosphere, Special Issue Special Issue "Precipitation Observations and Prediction ", 14(1):182, 2023
44. Mariana Maier, **Gabriela Czibula**, Lavinia Delean, *Using unsupervised learning for mining behavioural patterns from data. A case study for the baccalaureate exam in Romania*, Studies in Informatics and Control vol. 32(2), pp. 73-84, 2023
45. Sîrbu Alexandru-Gabriel, **Czibula Gabriela**, *Automatic code generation based on Abstract Syntax-based encoding. Application on malware detection code generation based on MITRE ATT&CK techniques*, Expert Systems with Applications, Volume 264, 10 March 2025, 125821 (Q1)
46. Eugen Mihuleț, Gabriela Czibula, Ștefan Alexandrescu, Ana-Maria Mardaloescu, Alexandra-Ioana Albu, Mariana-Ioana Maier, *Using deep learning for enhancing the performance of ground-based cloud images classification*, Studies in Informatics and Control, 2025, to be published

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1. **Șerban, G.**, Tătar, D., *Word Sense Disambiguation for Untagged Corpus: Application to Romanian Language*, Proceedings of CICling 2003, Mexico City, Mexic, in *Computational Linguistics and Intelligent Text Processing, Lecture Notes in Computer Science N 2588*, Springer-Verlag Berlin Heidelberg 2003, Alexander Gelbukh (Ed.), pp.268-272, ISBN 3-540-00843-8
2. **Șerban, G.**, Tătar, D., *An improved algorithm on Word Sense Disambiguation*, Proceedings of IIS 2003 (Intelligent Information Systems - New Trends in Intelligent Text Processing and Web Mining), Zakopane, Poland, in *Advances in Soft Computing*, Springer Verlag, 2003, XIV, pp.199-208, ISBN 3-540-00843-8
3. **Șerban, G.**, Câmpan, A., *Incremental Clustering Using a Core-Based Approach*, Proceedings of The 20th International Symposium on Computer and Information Science (ISCIS'05), Istanbul, Turkey, 2005, in *Computer and Information Sciences-ISCIS 2005, Lecture Notes in Computer Science N 3733*, Springer-Verlag Berlin Heidelberg 2005, pp.854-863, P. Yolum et al. (Eds), ISBN: 3-540-29414-7
4. **Șerban, G.**, *A New Programming Interface for Reinforcement Learning Simulations*, in *"Intelligent Information Processing and Web Mining"* Proceedings of IIS:IIPWM'05 (Intelligent Information Systems - New Trends in Intelligent Information Processing and Web Mining), Gdansk, Poland, 2005, in *Advances in Soft Computing*, Springer Verlag, 2005, XV, pp.481-485, Kłopotek, Mieczysław A.; Wierzchoń, Sławomir T.; Trojanowski, Krzysztof (Eds.), ISBN: 3-540-25056-5
5. **Șerban, G.**, Câmpan, A., *A New Core-Based Method For Hierarchical Incremental Clustering*, Proceedings of the 7th International Symposium on

- Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'05), Timisoara, Romania, IEEE Computer Society Press, 2005, pp. 77-82, D. Zaharia (Ed.), ISBN 07695-2453-2
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 7. **Șerban, G.**, Moldovan, G.S, *A new k-means based clustering algorithm in Aspect Mining*, Proceedings of the 8th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'06), Timisoara, Romania, 2006, pp.69-74
 8. **Șerban, G.**, Tarța, A., Moldovan, G.S, *A Learning Interface Agent for User Behavior Prediction*, Proceedings of HCI International 2007, China, LNCS 4552: HCI Intelligent Multimodal Interaction Environments by J. Jacko, ISBN 978-3-540-73108-5, pp. 508-517
 9. Czibula, I.G., **Șerban, G.**, *A Programming Interface for Determining Refactorings of Object-Oriented Software Systems using Clustering*, ICCP 2007: Proceedings of the IEEE 3rd International Conference on Intelligent Computer Communication and Processing, September, 6-8, 2007, Cluj-Napoca, Romania, pp. 271-274
 10. Cojocar, G.S, **Șerban, G.**, *On Evaluating Aspect Mining Techniques*, ICCP 2007: Proceedings of the IEEE 3rd International Conference on Intelligent Computer Communication and Processing, September, 6-8, 2007, Cluj-Napoca, Romania, pp. 217-224
 11. **Șerban, G.**, Czibula, I.G., *Restructuring Software Systems Using Clustering*, ISCIS 2007, Proceedings of The 22th International Symposium on Computer and Information Sciences, November 7-9, Ankara, Turkey, 2007, pp. 262-267
 12. **Șerban, G.**, Czibula, I.G., *Object-Oriented Software Systems Restructuring through Clustering*, ICAISC'08, The Eighth International Conference on Artificial Intelligence and Soft Computing, LNAI 5097, pp. 693-704
 13. Czibula, I.G., **Șerban, G.**, *Identifying Design Patterns in Object-Oriented Software Systems Using Unsupervised Learning*, 2008 IEEE-TTTC International Conference on Automation, Quality and Testing, Robotics, AQTR 2008, pp. 347-352
 14. **Czibula, G.**, Guran, A., Cojocar, G.S, Czibula, I.G., *Multiagent Decision Support Systems based on Supervised Learning*, 2008 IEEE-TTTC International Conference on Automation, Quality and Testing, Robotics, AQTR 2008, pp. 353-358
 15. Cojocar, G.S., **Czibula, G.**, *On Clustering Based Aspect Mining*, ICCP 2008: Proceedings of the IEEE 4th International Conference on Intelligent Computer Communication and Processing, 2008, Cluj-Napoca, Romania, pp. 129-136
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29. Czibula, I. G., **Czibula, G.**, Bocicor, M.I., *A Reinforcement Learning Based Framework for Solving Optimization Problems*, Post proceedings of KEPT 2011, Presa Universitară Clujeană, 2011, pp. 235-246
30. Sîrbu, A., **Czibula, G.**, Bocicor, M.I., *Dynamic clustering of gene expression data using a fuzzy approach*, The 16th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, SYNASC 2014, IEEE Computer Society, pp. 220-227, 2014
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33. Diana-Lucia Miholca, **Gabriela Czibula**, Ioan-Gabriel Mircea, Istvan Gergely Czibula, *Machine learning based approaches for sex identification in bioarchaeology*, Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'16), Timisoara, Romania, IEEE Computer Society Press, pp. 311-314
34. Zsuzsanna Marian, Ioan-Gabriel Mircea, Istvan-Gergely Czibula and **Gabriela Czibula**, *A novel approach for software defect prediction using fuzzy decision trees*, Symbolic and Numeric Algorithms for Scientific Computing (SYNASC'16), Timisoara, Romania, IEEE Computer Society Press, pp. 240-247
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40. Mircea, I.G., Bocicor, M. I., **Czibula, G.**, *A reinforcement learning based approach to multiple sequence alignment*, 7th International Workshop on Soft Computing Applications, Soft Computing Applications, Vol. 2, Springer, 2018, pp. 54-70
41. Albert, S., **Czibula, G.**, Teletin, M., *Analyzing the impact of protein representation on mining structural patterns from protein data*, IEEE 12th International Symposium on Applied Computational Intelligence and Informatics, SACI 2018, pp. 533-538
42. Istvan Gergely Czibula, **Gabriela Czibula** and Zsuzsanna Marian, *An Improved Approach for Class Test Ordering Optimization using Genetic Algorithms*, ICSoft, International Conference on Software Technologies, ScitePress, pp. 163-187, 2018
43. Teletin, M., **Czibula, G.**, Bocicor, M.I., Albert, S., *Using unsupervised learning methods for enhancing protein structure insight*, 22nd International Conference on Knowledge-Based and Intelligent Information & Engineering Systems (KES2018), Procedia Computer Science, Volume 126, 2018, Pages 19-28
44. Miholca, D.L., **Czibula, G.**, Crivei, L.M., *A new incremental relational association rules mining approach*, 22nd International Conference on

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45. M. Teletin, **G. Czibula**, M.I. Bocicor, S. Albert, A. Pandini, *Deep autoencoders for additional insight into protein dynamics*, ICANN 2018, The 27th International Conference on Artificial Neural Networks, LNCS, volume 11140, pp. 78-89
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 53. Silvana Albert, **G. Czibula**, *ProteinA: An approach for analyzing and visualizing protein conformational transitions using fuzzy and hard clustering techniques* KSEM 2019: The 12th International Conference on Knowledge Science, Engineering and Management, LNAI, volume 11775, 2019, pp. 249-261
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