

СПИСЪК НА ПУБЛИКАЦИИТЕ НА ПРОФ. ПЛАМЕН АНГЕЛОВ ЗА КОНКУРСА

Общият брой на публикации на проф. д-р Пламен Ангелов е **над 400**, от които в конкурса той участва със **206 (65)**; цифрите в скоби са за последните 5 години (от 2019г.). От тези **206 (65)** публикации, представени за конкурса, **102 (36)** са статии в научни реферираны списания, **100 (34)** от тях с импакт фактор и **2 (2)** с ранг фактор, **85 (23)** са публикации в реферираны сборници на престижни конференции, **3 (1)** са монографии, **3 (0)** са патенти, **4 (1)** са книги, редактирани от проф. Ангелов и **9 (4)** са глави от книги. На **15 (2)** от тези публикации проф. Ангелов е единственият автор; за тези публикации е използван символът “**”. Общият брой на **цитиранията** на базата на тези подбрани **206 (65)** публикации е **5875 (1234)**. **H-факторът** на кандидата **64** (съгласно Google Scholar). Кумулативният **импакт фактор (ИФ)** на базата на тези подбрани **100 (34)** статии в научни реферираны списания с импакт фактор е **822.562 (305.8)**. **ИФ** е в червено. Файловете в електронен (pdf) формат са именувани T1,T2,T3 и т.н. като Т означава (научен) Труд и числото следва списъка по-долу.

A. СТАТИИ В НАУЧНИ РЕФЕРИРАНИ СПИСАНИЯ 103 (37); С ИМПАКТ ФАКТОР 100(34); *6(0).

1. X. Gu, **P. Angelov**, Q. Shen, Semi-supervised Fuzzily Weighted Adaptive Boosting for Classification, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), **32** (4): 2318-2330, April 2024, DOI: 10.1109/TFUZZ.2024.3349637.
2. A. Shen, Y. Zhu, **P. Angelov**, R. Jiang, Marine Debris Detection in Satellite Surveillance using Attention Mechanisms, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, (**ИФ 5.5**), 3 January 2024, DOI: 10.1109/JSTARS.2024.3349489.
3. Z Jiang, H Rahmani, **P. Angelov**, R Vyas, H Zhou, S Black, B Williams, Deep orientated distance-transform network for geometric-aware centerline detection, *Pattern Recognition* (**ИФ 7.196**), v.146, 110028, DOI: 10.1016/j.patcog.2023.110028, 5 Oct. 2023.
4. E. Soares, **P. Angelov**, S. Biaso, M. H. Froes, and D. K. Abe, A large dataset of real patients CT scans for SARS-CoV-2 identification, *Evolving Systems* (**ИФ 3.2**), 27 June 2023, DOI: 10.1007/s12530-023-09511-2.
5. X. Gu, **P. Angelov**, J. Han, Q. Shen, Multilayer Evolving Fuzzy Neural Network, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), 31(12): 4158-4169, Dec. 2023, DOI: 10.1109/TFUZZ.2023.3276263
6. N. I. Arnold, **P. Angelov**, P. M. Atkinson, An Improved eXplainable Point Cloud Classifier (XPCC), *IEEE Transactions on AI*, 4(1): 71-80, Feb 2023, DOI: 10.1109/TAI.2022.3150647.
7. X. Gu, J. Han, Q. Shen, **P. Angelov**, Autonomous Learning for Fuzzy Systems: a review, *Artificial Intelligence Review* (**ИФ 9.588**), 56 (8): 7549-7595, 2023, 10.1007/s10462-022-10355-6.
8. X. Gu, **P. P. Angelov**, C. Zhang, P. M. Atkinson, A Semi-Supervised Deep Rule-Based Approach for Complex Satellite Sensor Image Analysis, *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *TPAMI* (**ИФ 24.314**), **44** (5): 2281-2292, DOI: 10.1109/TPAMI.2020.3048268, 2022.
9. X. Gu, C. Zhang, Q. Shen, J. Han, **P.P. Angelov**, P.M. Atkinson, A Self-Training Hierarchical Prototype-based Ensemble Framework for Remote Sensing Scene Classification, *Information Fusion* (**ИФ 17.564**), **80**: 179-204, April 2022.
10. M. Alghamdi, **P. Angelov**, A. Lopez Pellicer, Person Identification from Fingernails and Knuckles Images using Deep Learning Features and the Bray-Curtis Similarity Measure, *Neurocomputing*, (**ИФ 5.779**), 2022, **513**, 83-93, 7 Nov. 2022.
11. Z. Jiang, Y. Wang, C.-T Li, **P. Angelov**, R. Jiang, Delve into Activations: Towards understanding Dying Neuron, *IEEE Transactions AI*, **4**(4):959–971, June 2022, DOI: 10.1109/TAI.2022.3180272
12. X. Gu, **P. Angelov**, Q. Shen, Self-Organizing Fuzzy Belief Inference System for Classification, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), **30** (12): 5473-5483, December 2022, DOI: 10.1109/TFUZZ.2022.3179148.
13. E. S. Yourdshahi, M. A. C. Alves, A. Varma, L. S. Marcolino, J. Ueyama, **P. Angelov**, On-line estimators for ad-hoc task execution: learning types and parameters of teammates for

- effective teamwork, *Autonomous Agents and Multi-Agent Systems*, **36** (2): 1-49, Oct. 2022 (**ИФ 1.431**).
14. R. Vyas, B. M. Williams, H. Rahmani, R. Boswell-Challand, Z. Jiang, **P. Angelov**, S. Black, Ensemble-based bounding box regression for enhanced knuckle localization, *Sensors*, (**ИФ 3.9**), **22**(4): 1569, 17 Feb. 2022.
 15. Z. Yang, H. Rong, P. Wong, **P. Angelov**, C. Vong, C. Chiu, Z. Yang, A Novel Multiple Feature-based Engine Knock Detection System using Sparse Bayesian Extreme Learning Machine, *Cognitive Computation*, **14**: 828-858, Jan 2022 (**ИФ 5.418**), DOI: 10.1007/s12559-021-09945-3.
 16. X. Gu, **P. Angelov**, Multiclass Fuzzily Weighted Adaptive Boosting-based Self-Organizing Fuzzy Inference Ensemble Systems for Classification, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), **30** (9): 3722-3735, Sept. 2022, DOI: 10.1109/TFUZZ.2021.3126116.
 17. **P. Angelov**, E. A. Soares, Detecting and Learning from Unknown by Extremely Weak Supervision: eXploratory Classifier (xClass), *Neural Computing and Applications* (**ИФ 6.0**), **33** (22), 15145-15157, November, 2021.
 18. Z.-X. Yang, H.-J. Rong, **P. Angelov**, Z.-X. Yang, Statistically Evolving Fuzzy Inference System for Non-Gaussian Noises, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), **30** (7): 2649-2664, July 2022, DOI: 10.1109/TFUZZ.2021.3090898.
 19. X. Gu, Q. Shen, **P. Angelov**, Particle Swarm Optimized Autonomous Learning Fuzzy System, *IEEE Transactions on Cybernetics* (**ИФ 19.118**), **51** (11): 5352-5363, Nov. 2021, DOI: 10.1109/TCYB.2020.2967462.
 20. X. Gu, **P. P. Angelov**, Z. Zhao, Self-organizing fuzzy inference ensemble system for big streaming data classification, *Knowledge-Based Systems* (**ИФ 8.14**), **218**: 106870, published online on 22 April 2021, DOI. 10.1016/j.knosys.2021.106870.
 21. E. A. Soares, **P. Angelov**, X. Gu, Autonomous Learning Multiple-Model Zero-Order Classifier for Heart Sound Classification, *Applied Soft Computing* (**ИФ 8.263**), **94**, Sept. 2020, DOI: 10.1016/j.asoc.2020.106449.
 22. X. Gu, **P. Angelov**, Highly Interpretable Hierarchical Deep Rule-based Classifier, *Applied Soft Computing* (**ИФ 8.263**), **92** July 2020, DOI.org/10.1016/j.asoc.2020.106310.
 23. J. Huang, **P. P. Angelov**, C. Yin, Interpretable policies for reinforcement learning by empirical fuzzy sets, *Engineering Applications of Artificial Intelligence* (**ИФ 7.802**), **91**, published online 1 May 2020, DOI.org/10.1016/j.engappai.2020.103559.
 24. E. Soares, **P. Angelov**, M. P. G. Castro, S. Nageshrao, B. Costa, D. Filev, Explaining Deep Learning Models Through Rule-Based Approximation and Visualization, *IEEE Transactions on Fuzzy Systems* (**ИФ 12.253**), **29** (8): 2399-2407, DOI: 10.1109/TFUZZ.2020.2999776, Aug. 2021.
 25. Firouzi, B. Farahani, M. Daneshmand, K. Grise, J. S. Song, R. Saracco, L. L. Wang, K. Lo, **P. Angelov**, E. Soares, P.-S. Loh, Z. Talebpour, R. Moradi, M. Goodarzi, H. Ashraf, M. Talebpour, A. Talebpour, L. Romeo, R. Das, H. Heidari, D. Pasquale, J. Moody, C. Woods, E. S. Huang, P. Barnaghi, M. Sarrafzadeh, R. Li, K. L. Beck, O. Isayev, G. Tso, A. Kannan, R. Hergenrder and A. Luo, Harnessing the Power of Smart and Connected Health to Tackle COVID-19: IoT, AI, Robotics, and Blockchain for a Better World, *IEEE Internet of Things Journal* (**ИФ 10.238**), **8** (16), 12826-12846, DOI: 10.1109/JIOT.2021.3073904, 15 Aug. 2021.
 26. **P. P. Angelov**, E. A. Soares, R. Jiang, N. I. Arnold, P. M. Atkinson, Explainable artificial intelligence: an analytical review, *WIREs Data Mining and Knowledge Discovery* (**ИФ 10.38**), DOI: 10.1002/widm.1424, 12 July 2021.
 27. Z. H. Yang, H. J. Rong, P. K. Wong, **P. Angelov**, Z. X. Yang, H. Wang, Self-evolving Data Cloud-based PID-like Controller for Nonlinear Uncertain Systems, *IEEE Transactions on Industrial Electronics* (**ИФ 8.162**), **68** (5): 4508-4518, May 2021, DOI: 10.1109/TIE.2020.2982094.
 28. A. B. Sargano, X. Gu, **P. Angelov**, Z. Habib, Human Action Recognition Using Deep Rule-Based Classifier, *Multimedia Tools and Applications* (**ИФ 3.6**), **79**: 30653-30667, 1 Nov 2020.
 29. E. A. Soares, **P. Angelov**, Towards Explainable Deep Neural Networks (xDNN), *Neural Networks* (**ИФ 9.657**), **130**: 185-194, Oct. 2020, *nominated for Best paper*.

30. C.-Y. Chiang, C. Barnes, **P. Angelov**, R. Jiang, Deep Learning-based Automated Forest Health Diagnosis from Aerial Images for Climate Change Monitoring, *IEEE Access* (ИФ 3.9), **8**: 144064-144076, 28 July 2020.
31. C. G. Bezerra, B. S. J. Costa, L. A. Guedes, **P. P. Angelov**, An Evolving Approach to Data Streams Clustering Based on Typicality and Eccentricity Data Analytics, *Information Sciences* (ИФ 8.233), **518**: 13-28, May 2020
32. X. Gu, **P. P. Angelov**, E. A. Soares, A Self-adaptive Synthetic over-sampling technique for imbalanced classification, *International Journal on Intelligent Systems* (ИФ 8.709), **35**: 923-943, 23 Feb. 2020, DOI: 10.1002/int.22230.
33. X. Gu, **P. Angelov**, H. J. Rong, Local Optimality of Zero-Order Autonomous Learning Neuro-Fuzzy Systems, *Information Sciences* (ИФ 8.233), **503**: 351-380, 2019.
34. X. Gu, **P. Angelov**, Z. Zhao, A distance-type-insensitive clustering approach, *Applied Soft Computing* (ИФ 8.263), **77**: 622-634, April 2019.
35. P. Sadeghi-Tehran, **P. Angelov**, N. Virlet, M. Hawkesford, Scalable Database Indexing and Fast Image Retrieval based on Deep Learning and Hierarchical Nested Structure Applied to Remote Sensing and Plant Biology, *Journal of Imaging* (ИФ 3.2), **5** (3) 33:1-21, 2019.33; DOI:10.3390/jimaging5030033
36. X. Gu, **P. Angelov**, Self-boosting first-order autonomous learning fuzzy systems, *Applied Soft Computing* (ИФ 8.263), **77**: 118-134, 2019.
37. **P. Angelov**, X. Gu, J. Principe, A generalized methodology for data analysis, *IEEE Transactions on Cybernetics* (ИФ 19.118), **48** (10): 2981-2993, Oct. 2018.
38. H.-J. Rong, **P. Angelov**, X. Gu, J. Bai, Stability of Evolving Fuzzy Systems based on Data Clouds, *IEEE Transactions on Fuzzy Systems* (ИФ 12.253), **26** (5): 2774-2784, Oct. 2018.
39. X. Gu, **P. Angelov**, J. Principe, A method for autonomous data partitioning into data clouds, *Information Sciences*, **460-461**, pp. 65-82 (ИФ 8.233), Sept. 2018.
40. **P. Angelov**, X. Gu, Towards Anthropomorphic Machine Learning, *IEEE Computer* (ИФ 2.256), **51** (9): 18-27, Sept. 2018.
41. **P. Angelov**, X. Gu, J. Principe, Autonomous learning multi-model systems from data streams, *IEEE Transactions on Fuzzy Systems*, (ИФ 12.253), **26** (4): 2213-2224, Aug. 2018.
42. **P. Angelov**, X. Gu, Deep rule-based classifier with human-level performance and characteristics, *Information Sciences* (ИФ 8.233), 463-464: 196-213, October 2018.
43. † R. Bao, H. Rong, **P. Angelov**, B. Chen, P. Wong, Correntropy-Based Evolving Fuzzy Neural System, *IEEE Transactions on Fuzzy Systems* (ИФ 12.253), **26** (3): 1324-1338, 23 June 2017.
44. X. Gu, **P. Angelov**, Self-organising fuzzy logic classifier, *Information Sciences* (ИФ 8.233), **447**: 36-51, 2018.
45. A. M. Ali, **P. Angelov**, Anomalous Behaviour Detection Based on Heterogeneous Data and Data Fusion, *Soft Computing* (ИФ 3.732), **22** (10): 3187-3201, May 2018.
46. X. Gu, **P. Angelov**, Semi-supervised deep rule-based approach for image classification, *Applied Soft Computing* (ИФ 8.263), **68**: 53-68, March 2018.
47. † M. Pratama, **P. Angelov**, E. Lughofer, M. J. Er, Parsimonious Random Vector Functional Link Network for Data Streams, *Information Sciences* (ИФ 8.233), 430-431: 519-537, March 2018.
48. X. Gu, **P. Angelov**, D. Kangin, J. Principe, Self-organised direction aware data partitioning algorithm, *Information Sciences* (ИФ 8.233), **423**: 80-95, Jan. 2018.
49. X. Gu, **P. Angelov**, C. Zhang, P. Atkinson, A massively parallel deep rule-based ensemble classifier for remote sensing scenes, *IEEE Geoscience and Remote Sensing Letters* (ИФ 4.8), v.15(3):245-249, Feb. 2018.
50. **P. Angelov**, X. Gu, Empirical Fuzzy Sets, *International Journal of Intelligent Systems* (ИФ 8.709), **33**(2): 362-395, Feb.2018, **top20 most downloadable article**
51. **P. Angelov**, P. Sadeghi-Tehran, C. Clarke, AURORA: autonomous real-time on-board video analytics, *Neural Computing and Applications* (ИФ 6.0), **28**(5): 855-865, 2017.
52. R. Hyde, **P. Angelov**, A. MacKenzie, Fully online clustering of evolving data streams into arbitrarily shaped clusters, *Information Sciences* (ИФ 8.233), **382**: 96-114, 2017.

53. **P. Angelov**, X. Gu, D. Kangin, Empirical data analytics, *International Journal of Intelligent Systems* (ИФ 8.709), 32(12): 1261-1284, Dec. 2017.
54. **P. Angelov**, P. Sadeghi-Tehran, Look-a-Like: A Fast Content-Based Image Retrieval Approach Using a Hierarchically Nested Dynamically Evolving Image Clouds and Recursive Local Data Density, *International Journal of Intelligent Systems* (ИФ 8.709), 32(1): 82-103, 2017.
55. N. Harris, L. Carpenter, J. Lee, G. Vaughan, M. Filus, R. Jones, B. OuYang, J. Pyle, A. Robinson, S. Andrews, A. Lewis, J. Minaeian, A. Vaughan, J. Dorsey, M. Gallagher, M. Le Breton, R. Newton, C. Percival, H. Ricketts, S. Bauguitte, G. Nott, A. Wellpott, M. Ashfold, J. Flemming, R. Butler, P. Palmer, P. Kaye, C. Stopford, C. Chemel, H. Boesch, N. Humpage, A. Vick, A. MacKenzie, R. Hyde, **P. Angelov**, E. Meneguz, A. Manning, Coordinated Airborne Studies in the Tropics (CAST), *Bulletin of the American Meteorological Society* (ИФ 8.766), 98(1): 145-162, 2017.
56. A. Sargano, **P. Angelov**, Z. Habib, A comprehensive review on handcrafted and learning-based action representation approaches for human activity recognition, *Applied Sciences* (ИФ 2.7), 7(1): 110, 2017.
57. G. Andonovski, **P. Angelov**, S. Blažič, I. Škrjanc, A practical implementation of Robust Evolving Cloud-based Controller with normalized data space for heat-exchanger plant, *Applied Soft Computing* (ИФ 8.263), 48: 29-38, 2016.
58. C. Bezerra, B. Costa, L. Guedes, **P. Angelov**, An evolving approach to unsupervised and Real-Time fault detection in industrial processes, *Expert Systems with Applications* (ИФ 8.5), 63: 134-144, 2016.
59. A. Sargano, **P. Angelov**, Z. Habib, Human action recognition from multiple views based on view-invariant feature descriptor using support vector machines, *Applied Sciences* (ИФ 2.7), 6(10): 309, 2016.
60. D. Kangin, **P. Angelov**, J. Iglesias, Autonomously evolving classifier TEDAClass, *Information Sciences* (ИФ 8.233), 366: 1-11, 2016.
61. R. Precup, **P. Angelov**, B. Costa, M. Sayed-Mouchaweh, An overview on fault diagnosis and nature-inspired optimal control of industrial process applications, *Computers in Industry* (ИФ 10.0), 74: 75-94, 2015.
62. B. S. J. Costa, **P. Angelov**, L. A. Guedes, Fully unsupervised fault detection and identification based on recursive density estimation and self-evolving cloud-based classifier, *Neurocomputing* (ИФ 5.779), 150A: 289-303, 2015.
63. B. S. J. Costa, **P. P. Angelov**, L. A. Guedes, Real-Time Fault Detection using Recursive Density Estimation, *Journal of Control, Automation and Electrical Systems* (ИФ 1.5), ISSN: 2195-3880, 25 (4): 428-437, 2014.
64. J. Trevisan, J. Park, **P. P. Angelov**, A. A. Ahmadzai, K. Gajjar, A. D. Scott, P. L. Carmichael, F. L. Martin, Measuring similarity and improving stability in biomarker identification methods applied to Fourier-transform infrared (FTIR) spectroscopy, *Journal of Biophotonics* (ИФ 3.207), 7(3-4): 254-265, 2014.
65. M. Pratama, S. Anavatti, **P. Angelov**, E. Lughofer, PANFIS: A Novel Incremental Learning Machine, *IEEE Transactions on Neural Networks and Learning Systems* (ИФ 14.255), 25 (1): 55-68, 2014.
66. R. D. Baruah, **P. Angelov**, DEC: Dynamically Evolving Clustering and its Application to Autonomous Structure Identification of Evolving Fuzzy Models, *IEEE Transactions on Cybernetics* (ИФ 19.118), 44(9): 1619-1631, 2013.
67. **P. Angelov**, R. Yager, Density-based Averaging - a new Operator for Data Fusion, *Information Sciences* (ИФ 8.233), 222: 163-174, 2013.
68. J. Trevisan, **P. P. Angelov**, A. D. Scott, P. L. Carmichael, F. L. Martin, IRootLab: a free and open-source MATLAB toolbox for vibrational biospectroscopy data analysis, *Bioinformatics* (ИФ 7.307), 29 (8): 1095-1097, 2013.
69. J. Andreu, **P. Angelov**, An Evolving Machine Learning Method for Human Activity Recognition Systems, *Journal of Ambient Intelligence and Humanized Computing* (ИФ 3.622), 4(2): 195-206, 2013.

70. J. Iglesias, **P. Angelov**, A. Ledezma, A. Sanchis, Creating evolving user behavior profiles automatically, *IEEE Transactions on Knowledge Data Eng.* (ИФ 8.9), 24(5): 854-867, 2012.
71. **P. Angelov**, R. Yager, A New Type of Simplified Fuzzy Rule-based Systems, *International Journal of General Systems* (ИФ 1.9), 41(2): 163-185, 2012.
72. J. Trevisan, **P. P. Angelov**, P. L. Carmichael, A. D. Scott and F. L. Martin, Extracting biological information with computational analysis of Fourier transform infrared (FTIR) bio-spectroscopy datasets: current practices to future perspectives, *Analyst* (ИФ 4.2), 137: 3202-3215, 2012.
73. * **P. Angelov**, Fuzzily Connected Multi-Model Systems Evolving Autonomously from Data Streams, *IEEE Transactions on Systems, Man, and Cybernetics - part B, Cybernetics* (ИФ 19.118), 41(4): 898-910, 2011.
74. **P. Angelov**, P. Sadeghi-Tehran, R. Ramezani, An Approach to Automatic Real-time Novelty Detection, Object Identification and Tracking in Video Stream based on Recursive Density Estimation and Evolving Takagi-Sugeno Fuzzy Systems, *International Journal of Intelligent Systems* (ИФ 8.709), 26(3): 189-205, 2011.
75. J. de Jesús Rubio, **P. Angelov**, E. García, An uniformly stable backpropagation algorithm to train a feedforward neural network, *IEEE Transactions on Neural Networks* (ИФ 14.255), 22(3): 356-366, 2011.
76. E. Lughofer, **P. Angelov**, Handling Drifts and Shifts in On-line Data Streams with Evolving Fuzzy Systems, *Applied Soft Computing* (ИФ 8.263), 11(2): 2057-2068, 2011.
77. R. Dutta-Baruah, **P. Angelov**, Evolving Fuzzy Systems for Data Streams: A Survey, *Data Mining and Knowledge Discovery* (ИФ 10.38), 1(6): 461-476, 2011.
78. J. G. Kelly, **P. Angelov**, J. Trevisan, N. Vlachopoulou, E. Paraskevaidis, P.L. Martin-Hirsch, and M.L. Martin, Robust classification of low-grade cervical cytology following analysis with ATR-FTIR spectroscopy and subsequent application of self-learning classifier eClass, *Journal of Analytical and Bio-analytical Chemistry* (ИФ 4.478), 398(5): 2191-2201, 2010.
79. **P. Angelov**, A. Kordon, Adaptive Inferential Sensors based on Evolving Fuzzy Models: An Industrial Case Study, *IEEE Transactions on Systems, Man and Cybernetics-B* (ИФ 19.118), 40(2): 529-539, 2010.
80. J. Trevisan, **P. P. Angelov**, P. L. Carmichael, A. D. Scott and F. L. Martin, A computational protocol and software implementation (as a MATLAB application) for biomarker identification in infrared spectroscopy datasets, *Nature Protocols* (ИФ 14.8) Exchange, May 2010, DOI: 10.1038/nprot.2010.97.
81. J. A. Iglesias, **P. Angelov**, A. Ledezma, A. Sanchis, Human Activity Recognition based on Evolving Fuzzy Systems, *International Journal of Neural Systems* (ИФ 14.255), 20(5): 355-364, 2010
82. J. A. Iglesias, **P. Angelov**, A. Ledezma, A. Sanchis, Evolving Classification of Agents' Behaviours: A General Approach, *Evolving Systems* (ИФ 3.2) , ISSN 1868-6478, 1(3): 161-171, 2010.
83. **P. Angelov**, X. Zhou, Evolving Fuzzy-Rule-based Classifiers from Data Streams, *IEEE Transactions on Fuzzy Systems* (ИФ 12.253), ISSN 1063-6706, 16(6): 1462-1475, 2008.
84. **P. Angelov**, E. Lughofer and X. Zhou, Evolving Fuzzy Classifiers with Different Model Architectures, *Fuzzy Sets and Systems* (ИФ 3.9), 159, 3160-3182, 2008.
85. **P. Angelov**, E. Lughofer, Data-driven evolving fuzzy systems using eTS and FLEXFIS: comparative analysis, *International Journal on General Systems* (ИФ 1.9), 37(1): 45-67, 2008.
86. **P. Angelov**, V. Giglio, C. Guardiola, E. Lughofer and J. M. Lujan, An Approach to Model-based Fault Detection in Industrial Measurement Systems with Application to Engine Test Benches, *Measurement Science and Technology* (ИФ 2.4), 17 (7) 1809-1818, 2006.
87. **P. Angelov**, C. Xydeas, Fuzzy Systems Design: Direct and Indirect Approaches, *Soft Computing* (ИФ 4.1), 10 (9): 836-849, 2006.
88. C. Xydeas, **P. Angelov**, S. Chiao and M. Reoullas, Advances in EEG Signals Classification via Dependant HMM models and Evolving Fuzzy Classifiers, *International Journal on Computers in Biology and Medicine* (ИФ 7.7), 36 (10): 1064-1083, 2006.
89. * **P. P. Angelov**, A Fuzzy Controller with Evolving Structure, *Information Sciences* (ИФ 8.233), 161: 21-35, 2004.

90. **P. Angelov**, D. Filev, An Approach to On-line Identification of Takagi-Sugeno Fuzzy Models, *IEEE Transactions on System, Man, and Cybernetics, part B – Cybernetics* (**ИФ 19.118**), 34 (1): 484-498, 2004.
91. * **P. Angelov**, An approach for fuzzy rule-base adaptation using on-line clustering, *International Journal of Approximate Reasoning* (**ИФ 3.9**), 35 (3): 275-289, 2004.
92. **P. Angelov**, D. Filev, Flexible Models with Evolving Structure, *International Journal of Intelligent Systems* (**ИФ 8.709**), 19 (4): 327-340, 2004.
93. **P. Angelov**, R. Buswell, Automatic Generation of Fuzzy Rule-based Models from Data by Genetic Algorithms, *Information Sciences* (**ИФ 8.233**), 150 (1/2): 17-31, 2003.
94. * **P. Angelov**, An Evolutionary Approach to Fuzzy Rule-based Model Synthesis using Rules Indices, *Fuzzy Sets and Systems* (**ИФ 3.9**), 137 (3): 325-338, 2003.
95. M. Eftekhari, L. Marjanovic and **P. Angelov**, Design and Performance of a Rule-based Controller in a Naturally Ventilated Room, *Computers in Industry* (**ИФ 10.0**), 51(3): 299-326, 2003.
96. **P. Angelov**, R. Buswell, Identification of Evolving Rule-based Models, *IEEE Transaction on Fuzzy Systems* (**ИФ 12.253**), 10 (5): 667-677, 2002.
97. L. Chen, O. Bernard, G. Bastin and **P. Angelov**, Hybrid Modelling of Biotechnological Processes using Neural Networks, *Control Engineering Practice* (**ИФ 4.9**), 8 (7):821-827, 2000.
98. * **P. Angelov**, Optimization in an Intuitionistic Fuzzy Environment, *Fuzzy Sets and Systems* (**ИФ 3.9**), 68: 301-306, 1997.
99. **P. Angelov**, R. Guthke, A GA-based Approach to Optimization of Bioprocesses Described by Fuzzy Rules, *Bioprocess and Biosystems Engineering* (**ИФ 3.8**), 16: 299-301, 1997.
100. * **P. Angelov**, A Generalized Approach to Fuzzy Optimization, *International Journal of Intelligent Systems* (**ИФ 8.709**), 9 (4): 261-268, 1994.
101. D. Filev, **P. Angelov**, Fuzzy Optimal Control, *Fuzzy Sets and Systems* (**ИФ 3.9**), 47(2): 151-156, 1992.
102. **P. Angelov**, S. Tzonkov, Optimal Control of Biotechnological Processes Described by Fuzzy Sets, *Journal of Process Control* (**ИФ 4.2**), 3(3): 147-152, 1993.

Б. ПУБЛИКАЦИИ В РЕФЕРИРАНИ СБОРНИЦИ НА ПРЕСТИЖНИ КОНФЕРЕНЦИИ: 85(23); *2(0)

103. D. Kangin, A. Aghasanli, **P. Angelov**, Interpretable-through-prototypes deepfake detection for diffusion models, *Workshop and Challenge on Deep Fake Detection, DFAD2023 within the International Conference on Computer Vision, ICCV 2023*, 2 Oct. 2023, pp.467-474.
104. Y. Li, **P. Angelov**, N. Suri, Fuzzy Detector Against Adversarial Attacks, *2023 IEEE Symposium on Computational Intelligence, SSCI-2023*, Mexico City, Mexico, 5-8 Dec. 2023, pp.306-311, published online, 1 January 2024, DOI 10.1109/SSCI52147.2023.10372061.
105. Y. Li, **P. Angelov**, N. Suri, Domain Generalization and Feature Fusion for Cross-Domain Imperceptible Adversarial Attack Detection, *2023 International Joint Conference on Neural Networks (IJCNN-2023)*, Gold Coast, Australia, 18-23 June, 2023.
106. M. C. Alves, E. S. Yourdshahi, A. Varma, L. S. Marcolino, J. Ueyama, **P. Angelov**, On-line estimators for ad-hoc task execution: learning types and parameters of teammates for effective teamwork, *Proc. 2023 International Conference on Autonomous Agents and Multiagent Systems, AAMAS*, pp.140-142, May 2023.
107. Z. Yu, Y. Lu, **P. Angelov**, N. Suri, PPFM: An Adaptive and Hierarchical Peer-to-Peer Federated Meta-Learning Framework, *18th International Conference on Mobility, Sensing and Networking*, Guangzhou, China, 14-16 December 2022, **best paper award**.
108. N. L. Baisa, B. Williams, H. Rahmani, **P. Angelov**, S. Black, Multi-branch with attention network for hand-based person recognition, *International Conference on Pattern Recognition, ICPR 2022*, pp.727-732, IEEE Press, Aug. 2022.
109. Z. Jiang, H. Rahmani, **P. Angelov**, S. Black, B. Williams, Graph-context Attention Networks for Size-varied Deep Graph Matching, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*, 19-24 June 2022, New Orleans, USA, pp. 2343-2352.

110. N. L. Baisa, B. Williams, H. Rahmani, **P. Angelov**, S. Black, Hand-based person identification using global and part-aware deep feature representation learning, *2022 Eleventh International Conference on Image Processing Theory, Tools and Applications (IPTA)*, 19-22 April 2022, DOI 10.1109/IPTA54936.2022.9784133.
111. E. Soares, **P. Angelov**, N. Suri, Similarity-based Deep Neural Network to Detect Imperceptible Adversarial Attacks, *2022 IEEE Symposium Series on Computational Intelligence (SCCI2022)*, 4-7 December 2022, Singapore, DOI: 10.1109/SSCI51031.2022.10022016.
112. Z. Zhang, **P. Angelov**, E. Soares, N. Longepe, P.-P. Mathieu, An Interpretable Deep Semantic Segmentation Method for Earth Observation, *11th IEEE International Conference on Intelligent Systems, IS'22*, Warsaw, Poland, 12-14 Oct 2022, DOI: 10.1109/IS57118.2022.10019621.
113. M. Camargos and **P. Angelov**, State of Health and Lifetime Prediction of Lithium-ion Batteries using Self-learning Incremental Models, *Proc. 7th European Conference of the Prognostics and Health Management Society*, Turin, Italy, 6-8 July 2022, pp. 78-86, ISBN 978-1-936263-36-3.
114. M. Alghamdi, **P. Angelov**, B. Williams, Automated Person Identification Framework Based on Fingernails and Dorsal Knuckle Patterns, *2021 IEEE Symposium on Computational Intelligence in Biometrics and Identity Management within 2021 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2021)*, Orlando, FL USA, 3-7 Dec. 2021, DOI: 10.1109/SSCI50451.2021.9659850, published online at IEEE Xplore on 24 January 2022.
115. R. Vyas, H. Rahmani, R Boswell-Challand, **P. Angelov**, S Black, Bryan M Williams, Robust End-to-End Hand Identification via Holistic Multi-Unit Knuckle Recognition, *2021 IEEE International Joint Conference on Biometrics (IJCB)*, Aug. 2021, pp. 1-8.
116. M. Jaworski, L. Rutkowski, **P. Angelov**, Concept Drift Detection Using Autoencoders in Data Streams Processing, *Proc. International Conference on AI and Soft Computing*, 124-133, Oct. 2020, Springer, DOI: 10.1007/978-3-030-61401-0_12.
117. **P. Angelov**, E. Soares, Towards Deep Machine Reasoning: a Prototype-based Deep Neural Network with Decision Tree Inference, *IEEE Intern. Conf. on Systems, Man and Cybernetics, IEEE SMC2020*, 11-14 Oct 2020, Toronto, Canada, pp. 2092-2099, DOI: 10.1109/SMC42975.2020.9282812.
118. X. Gu, M. A. Khan, **P. Angelov**, B. Tiwary, E. S. Yourdshahi and Z.-X. Yang, A Novel Self-Organizing PID Approach for Controlling Mobile Robot Locomotion, *2020 World Congress on Computational Intelligence (WCCI2020)*, Glasgow, Scotland, 19-24 July 2020, DOI: 10.1109/FUZZ48607.2020.9177557.
119. T. Xia, Y. Q. Fu, N. Jin, P. Chazot, **P. Angelov**, R. Jiang, AI-enabled Microscopic Blood Analysis for Microfluidic COVID-19 Haematology, *5th Intern. Conference on Computational Intelligence and Applications (ICCIA)*, 98-102, June 2020, DOI:10.1109/ICCIA49625.2020.00026
120. X. Gu, **P. Angelov**, Deep Rule-Based Aerial Scene Classifier using High-Level Ensemble Feature Descriptor, *2019 International Joint Conference on Neural Networks (IJCNN2019)*, Budapest, Hungary, 14-19 July 2019, DOI: 10.1109/IJCNN.2019.8851838.
121. E. Soares, **P. Angelov**, B. Costa, M. Castro, Actively Semi-Supervised Deep Rule-based Classifier Applied to Adverse Driving Scenarios, *2019 International Joint Conference on Neural Networks (IJCNN2019)*, Budapest, Hungary, 14-19 July 2019, DOI: 10.1109/IJCNN.2019.8851842.
122. E. Soares, **P. Angelov**, D. Filev, B. Costa, M. Castro, S. Nageshrao, Explainable Density-based Approach for Self-driving actions classification, *2019 IEEE International Conference on Machine Learning and Applications (ICMLA)*, 16 Dec 2019, pp. 469-474.
123. E. S. Yourdshahi, M. A. C. Alves, L. S. Marcolino, **P. Angelov**, On-line Estimators for Ad-hoc Task Allocation, *Proc. 19th Intern. Conference on Autonomous Agents and Multi agent Systems (AAMAS 2020)*, B. An, N. Yorke-Smith, A. E. Seghrouchni, G. Sukthankar (eds.), May 9–13, 2020, Auckland, New Zealand.
124. M. Alghamdi, **P. Angelov**, R. Gimenez, M. Rufino, E. Soares, Self-Organising and Self-Learning Model for Soybean Yield Prediction, *6th International Conference on Social Networks Analysis, Management and Security (SNAMS)*, 22 Oct 2019, Granada, Spain, pp. 441-446.

125. X. Gu, **P. P. Angelov**, A Semi-supervised Deep Rule-based Approach for Remote Sensing Scene Classification, In: Oneto L., Navarin N., Sperduti A., Anguita D. (Eds.) Recent Advances in Big Data and Deep Learning. *INNSBDDL 2019. Proc. International Neural Networks Society (P. Angelov, R. Kozma Eds.)*, vol 1., pp. 257-266, Springer, Cham, 2019, ISBN 978-3-030-16840-7.
126. R. S. Martins, **P. Angelov**, B. S. J. Costa, Automatic Detection of Computer Network Traffic Anomalies based on Eccentricity Analysis, In *Proc. 2018 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE2019* within the *2018 IEEE World Congress on Computational Intelligence*, WCCI2018, Rio de Janeiro, Brazil, 9-14 July 2018, IEEE Xplore, ISBN 978-1-5090-6020-7, pp.1-8.
127. X. Gu, **P. Angelov**, A Deep Rule-based Approach for Satellite Scene Image Analysis, *IEEE Intern. Conf. on Systems, Man and Cybernetics*, IEEE SMC2018, Miyazaki, Japan, 7-10 Oct 2018, pp.2778-2783.
128. E. S. Yourdshahi, **P. P. Angelov**, L. S. Marcolino, G. Tsianakas, Towards Evolving Cooperative Mapping for Large-Scale UAV Teams, *2018 IEEE Symposium Series on Computational Intelligence* (IEEE SSCI 2018), Bangalore, India, Nov. 2018, pp. 2262-2269.
129. **P. Angelov**, X. Gu, A Cascade of Deep Learning Fuzzy Rule-based Image Classifier and SVM, *2017 IEEE Intern. Conf. on Systems, Man, and Cybernetics* (SMC2017), Banff, Canada, pp.746-751.
130. **P. Angelov**, X. Gu, MICE: Multi-layer multi-model images classifier ensemble, *2017 IEEE International Conference on Cybernetics*, CYBCONF2017, Exeter, UK, 2017, pp. 1-8, DOI: 10.1109/CYBConf.2017.7985788.
131. X. Wang, A. Ali, **P. Angelov**, Gender and Age Classification of Human Faces for Automatic Detection of Anomalous Human Behaviour, *2017 IEEE International Conference on Cybernetics* (CYBCONF2017), Exeter, UK, 2017, pp.1-6, DOI: 10.1109/CYBConf.2017.7985780.
132. G. Andonovski, **P. Angelov**, S. Blažič, I. Škrjanc, Robust Evolving Cloud-based Controller (RECCo), *2017 IEEE Intern. Conf. on Evolving and Adaptive Intelligent Systems* (EAIS2017), Ljubljana, Slovenia, pp.1-6, DOI:10.1109/EAIS.2017.7954835, IEEE ALMA Competition winner.
133. A. Sargano, X. Wang, **P. Angelov**, Z. Habib, Human action recognition using transfer learning with deep representations, *2017 International Joint Conference on Neural Networks* (IJCNN), Anchorage, Alaska, USA, 2017, pp. 463-469.
134. † M. Pratama, **P. Angelov**, J. Lu, E. Lughofer, M. Seera, C. Lim, A randomized neural network for data streams, *2017 International Joint Conference on Neural Networks* (IJCNN), Anchorage, Alaska, USA, 2017, pp. 3423-3430.
135. **P. Angelov**, X. Gu, J. Principe, Fast feedforward non-parametric deep learning network with automatic feature extraction, *2017 International Joint Conference on Neural Networks* (IJCNN), Anchorage, Alaska, USA, 2017, pp. 534-541.
136. **P. Angelov**, X. Gu, Autonomous Learning Multi-Model Classifier of 0-Order (ALMMo-0), *2017 IEEE International Conference on Evolving and Adaptive Intelligent Systems* (EAIS-2017), Ljubljana, Slovenia, 2017, pp. 1-7.
137. *X. Gu, **P. Angelov**, Autonomous anomaly detection, *2017 IEEE International Conference on Evolving and Adaptive Intelligent Systems* (EAIS-2017), Ljubljana, Slovenia, 2017, pp. 1-8.
138. **P. Angelov**, X. Gu, Local modes-based free-shape data partitioning, *2016 IEEE Symposium Series on Computational Intelligence* within SSCI2016, Athens, Greece, pp.1-8, DOI:10.1109/SSCI.2016.7850117.
139. X. Gu, **P. Angelov**, G. Gutierrez, J. Iglesias, A. Sanchis, Parallel computing TEDA for high frequency streaming data clustering, *INNS Conference on Big Data*, Thessaloniki, Greece, 2016, pp.238-253.
140. X Gu, **P. Angelov**, Autonomous data-driven clustering for live data stream, *IEEE International Conference on Systems, Man, and Cybernetics* (SMC2016), Budapest, Hungary, 2016, pp. 001128 – 001135, DOI: 10.1109/SMC.2016.7844394.
141. B. Costa, C. Bezerra, L. Guedes, **P. Angelov**, Unsupervised classification of data streams based on Typicality and Eccentricity Data Analytics, *2016 IEEE International Conference on Fuzzy Systems* (FUZZ-IEEE2016), Vancouver Canada, 2016, pp.58-63.

142. A. Antoniou, **P. Angelov**, A general purpose intelligent surveillance system for mobile devices using deep learning, *International Joint Conference on Neural Networks* (IJCNN-2016), Vancouver Canada, 2016, pp.2879-2886.
143. **P. Angelov**, X. Gu, G. Gutierrez, J. Iglesias, A. Sanchis, Autonomous data density based clustering method, *2016 International Joint Conference on Neural Networks* (IJCNN-2016), Vancouver Canada, 2016, pp.2405-2413.
144. C. Bezerra, B. Costa, L. Guedes, **P. Angelov**, A new evolving clustering algorithm for online data streams, *2016 IEEE Conference on Evolving and Adaptive Intelligent Systems* (EAIS), Natal, Brazil, 2016, pp.162-168.
145. X. Gu, **P. Angelov**, A. Ali, W. Gruver, G. Gaydadjiev, Online evolving fuzzy rule-based prediction model for high frequency trading financial data stream, *2016 IEEE Conference on Evolving and Adaptive Intelligent Systems* (EAIS-2016), Natal, Brazil, 2016, pp.169 - 175.
146. G. Morris, **P. P. Angelov**, Edge flow, *2015 IEEE International Conference on Systems, Man and Cybernetics, SMC 2015*, Hong Kong, pp.1942-1948, DOI 10.1109/SMC.2015.339.
147. G. Andonovski, S. Blazic, **P.P. Angelov**, I. Skrjanc, Analysis of Adaptation Law of the Robust Evolving Cloud-based Controller, Proc. *2015 IEEE International Conference on Evolving Intelligent Systems*, EAIS-2015, 1-3 Dec. 2015, Douai, France, pp.1-7, DOI 10.1109/EAIS.2015.7368793.
148. G. Andonovski, S. Blazic, **P. P. Angelov**, I. Skrjanc, Robust Evolving Cloud based Controller in Normalized Data Space for Heath Exchanger Plant, Proc. *2015 IEEE International Conference on Fuzzy Systems*, FUZZ-IEEE 2015, pp.1-7, DOI 10.1109/FUZZ-IEEE.2015.7337992.
149. C. G. Bezerra, B. S. J. Costa, L. A. Guedes, **P. P. Angelov**, A Comparative Study of Autonomous Learning Outlier Detection Methods Applied to Fault Detection, Proc. *2015 IEEE International Conference on Fuzzy Systems*, FUZZ-IEEE 2015, pp.1-7, DOI 10.1109/FUZZ-IEEE.2015.7337939.
150. B. S. J. Costa, C. G. Bezerra, L. A. Guedes, **P. P. Angelov**, Online Fault Detection based on Typicality and Eccentricity, *2015 IEEE International Joint Conference on Neural Networks*, IJCNN 2015, pp.1-6, DOI 10.1109/IJCNN.2015.7280712.
151. R. Hyde, **P. Angelov**, A New Online Clustering Approach for Data in Arbitrary Shaped Clusters, *2015 IEEE International Conference on Cybernetics*, CYBCONF 2015, pp.228-233, DOI: 10.1109/CYBCONF.2015.7175937.
152. **P. Angelov**, X. Gu, D. Kangin, J. Principe, Empirical data analysis: a new tool for data analytics, *IEEE International Conference on Systems, Man, and Cybernetics* (SMC2016), Budapest, Hungary 2016, pp. 000052 – 000059, DOI: 10.1109/SMC.2016.7844219.
153. D. Kangin, **P. P. Angelov**, Evolving Clustering, Classification and Regression with TEDA, *2015 IEEE International Joint Conference on Neural Networks*, IJCNN2015, pp.1-8, DOI 10.1109/IJCNN.2015.7280528.
154. * **P. P. Angelov**, Typicality Distribution Function: A New Density based Data Analytics Tool, *2015 IEEE International Joint Conference on Neural Networks*, IJCNN 2015, pp.1-6, DOI 10.1109/IJCNN.2015.7280438.
155. * **P. Angelov**, Anomaly Detection based on Eccentricity Analysis, Proc. *2014 IEEE Symposium on Evolving and Autonomous Learning Systems*, EALS within SSCI2014, Orlando, USA, 9-12 Dec. 2014, pp.1-8, ISBN 978-1-4799-4495-8.
156. R. D. Baruah, **P. Angelov**, D. Baruah, Dynamically Evolving Fuzzy Classifier for Real-time Classification of Data Streams, Proc. *2014 World Congress on Computational Intelligence*, WCCI-2014, 6-11 July 2014, Beijing, China, pp.383-389.
157. R. D. Baruah, **P. Angelov**, Online Learning and Prediction of Data streams using Dynamically Evolving Fuzzy Approach, Proc. *2013 IEEE International Conference on Fuzzy Systems*, FUZZ-IEEE2013,pp.1-8, DOI:10.1109/FUZZ-IEEE.2013.6622517.
158. B. Costa, I. Skrjanc, S. Blazic, **P. Angelov**, A practical implementation of self-evolving cloud-based control of a pilot plant, Proc. *2013 IEEE International Conference on Cybernetics*, CYBCONF-2013, Lausanne, Switzerland, pp.7-12, 13-15 June, 2013, ISBN: 978-1-4673-6469-0/13, **best student paper award**.

159. R. D. Baruah, **P. Angelov**, Evolving Local Means Method for Clustering of Streaming Data, In Proc. 2012 World Congress on Computational Intelligence, WCCI-2012, 10-15 June 2012, Brisbane, Australia, pp.2161-2168 (IEEE Press ISBN 978-1-4673-1489-3).
160. R. D. Baruah, **P. Angelov**, Evolving Social Network Analysis: A Case Study on Mobile Phone Data, In Proc. 2012 IEEE Conference on Evolving and Adaptive Intelligent Systems, EAIS-2012, 17-18 May 2012, Madrid, Spain, pp. 114-120, ISBN 978-1-4673-1727-6.
161. P. Sadeghi-Tehran, A. B. Cara, **P. Angelov**, H. Pomares, I. Rojas, A. Prieto, Self-Evolving Parameter-free Rule-based Controller, 2012 World Congress on Computational Intelligence, WCCI2012, 10-15 June 2012, Brisbane, Australia, pp.754-761, ISBN 978-1-4673-1489-3.
162. **P. Angelov**, C. Gude, P. Sadeghi-Tehran, T. Ivanov, ARTOT: Autonomous Real-Time Object Detection and Tracking by a Moving Camera, In Proc. 2012 IEEE Conference on Intelligent Systems, IS-12, 6-8 September, 2012, Sofia, Bulgaria, pp. 446-452.
163. R. Dutta-Baruah, **P. Angelov**, J. Andreu, Simpl_eClass: Simple Potential-free Evolving Fuzzy Rule-Based On-line Classifiers, Proc. 2011 IEEE International Conference on Systems, Man and Cybernetics, SMC 2011, Anchorage, Alaska, USA, 7-9 Oct, 2011, pp.2249-2254.
164. J. Andreu, **P. Angelov**, R. D. Baruah, Real-time Recognition of Human Activities from Wearable Sensors by Evolving Classifiers, Proc. 2011 IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2011, 27-30 June, 2011, Taiwan, ISSN 978-1-4244-7317-5/11, pp. 2786-2793.
165. P. Sadeghi-Tehran, **P. Angelov**, Online Self-Evolving Fuzzy Controller for Autonomous Mobile Robots, Proc. IEEE Symposium on Evolving and Adaptive Intelligent Systems, EAIS2011 within SSCI-2011,11-15 April 2011, Paris, France, pp.100-107, ISBN 978-1-4244-9977-9.
166. **P. Angelov**, R. Yager, Simplified Fuzzy Rule-based Systems using Non-parametric Antecedents and relative Data Density, Proc. IEEE Symposium on Evolving and Adaptive Intelligent Systems, EAIS2011 within 2011 IEEE Series on Computational Intelligence, SSCI-2011,11-15 April 2011, Paris, France, pp.62-69, ISBN 978-1-4244-9977-9.
167. E. Lughofer, **P. Angelov**, Detecting and Responding to Drift and Shift in On-line Data Streams with Evolving Fuzzy Systems, Proc. 2009 IFSA World Congress and 2009 EUSFLAT Conference, 19-23 July 2009, Lisbon, Portugal, ISBN 978-95079-6-8, pp.931-937.
168. **P. Angelov**, R. Yager, A Simple Rule-based System through Vector Membership and Kernel-based Granulation, In: Proc. 5th International Conference on Intelligent Systems, IS-2010,7-9 July 2010, London, UK, IEEE Xplore, pp.349-354.
169. J. A. Iglesias, **P. Angelov**, A. Ledezema, A. Sanchis, Modelling Evolving User Behaviours, In Proc. 2009 IEEE Symposium on Evolving and Self-Developing Intelligent Systems, ESDIS within 2009 IEEE Series on Computational Intelligence, 29 March-2 April, 2009, Nashville, TN, USA, IEEE Xplore, ISBN: 978-1-4244-2754-3, pp.16-23, **best paper award**.
170. **P. Angelov**, X. Zhou, On Line Learning Fuzzy Rule-based System Structure from Data Streams, Proc. 2008 IEEE World Congress on Computational Intelligence, Hong Kong, June 1-6, 2008, ISBN 978-1-4244-1821-3/08, pp.915-922.
171. **P. Angelov**, R. Ramezani, X. Zhou, Autonomous Novelty Detection and Object Tracking in Video Streams using Evolving Clustering and Takagi-Sugeno type Neuro-Fuzzy System, Proc. 2008 IEEE World Congress on Computational Intelligence, Hong Kong, June 1-6, 2008, ISBN 978-1-4244-1821-3/08, pp.1457-1464.
172. R. Ramezani, **P. Angelov**, X. Zhou, A Fast Approach to Novelty Detection in Video Streams using Recursive Density Estimation, Proc. 4th International IEEE Symposium on Intelligent Syst, 6-8 September 2008, Varna, Bulgaria, ISBN978-1-4244-1739-1/08, v.II, pp.14-2 -- 14-7.
173. **P. Angelov**, A. Kordon, X. Zhou, Evolving Fuzzy Inferential Sensors for Process Industry, Proc. 3rd International Workshop on Genetic and Evolving Fuzzy Systems, 4-7 March, 2008, Witten-Bomerholz, Germany, ISBN 978-1-4244-1613-4, pp.41-46.
174. **P. Angelov**, X. Zhou, E. Lughofer, D. Filev, Architectures of Evolving Fuzzy Rule-based Classifiers, Proc. 2007 IEEE International Conference on Systems, Man and Cybernetics, SMC-2007, Montreal, Canada, ISBN 1-4244-0991-8/07, pp.2050-2055.

175. J. J. Macias-Hernandez, **P. Angelov**, X. Zhou, Soft Sensor for Predicting Crude Oil Distillation Side Streams using Takagi Sugeno Evolving Fuzzy Models, Proc. *2007 IEEE International Conference on Systems, Man, and Cybernetics, SMC2007*, 7-10 October, 2007, Montreal, Canada, ISBN 1-4244-0991-8/07, pp.3305-3310.
176. E. Lughofer, **P. Angelov**, X. Zhou, Evolving Single-and Multi-Model Fuzzy Classifiers with FLEXFIS-Class, Proc. *2007 IEEE International Conference on Fuzzy Systems*, 23-26 July, 2007, London, ISBN 1-4244-1210-2/07, pp.363-368.
177. **P. Angelov**, X. Zhou, F. Klawonn, Evolving Fuzzy Rule-based Classifiers, Proc. *2007 IEEE International Conference on Computational Intelligence Applications for Signal and Image Processing*, April 1-5, 2007, Hawaii, USA, pp.220-225.
178. X. Zhou, **P. Angelov**, An Approach to Autonomous Self-localization of a Mobile Robot in Completely Unknown Environment using Evolving Fuzzy Rule-based Classifier, Proc. *2007 IEEE International Conference on Computational Intelligence Applications for Defense and Security*, April 1-5, 2007, Honolulu, Hawaii, USA, pp.131-138.
179. **P. Angelov**, X. Zhou, Evolving Fuzzy Systems from Data Streams in Real-Time, Proc. *2006 International Symposium on Evolving Fuzzy Systems*, 7-9 September, 2006, Ambleside, UK, IEEE Press, ISBN 0-7803-9719-3, pp.29-35.
180. J. Macias, **P. Angelov**, X.-W. Zhou, A Method for Predicting Quality of the Crude Oil Distillation, Proc. *2006 International Symposium on Evolving Fuzzy Systems*, 7-9 Sept. 2006, Ambleside, UK, IEEE Press, ISBN 0-7803-9719-3, pp. 201-207.
181. X.-W. Zhou, **P. Angelov**, Real-Time joint Landmark Recognition and Classifier Generation by an Evolving Fuzzy System, Proc. *2006 IEEE World Congress on Computational Intelligence*, Vancouver, Canada, July 16-21, 2006, ISBN 0-7803-9489-5, pp.6314-6321.
182. F. Klawonn, **P. Angelov**, Evolving Extended Naive Bayes Classifier, Proc. *6th IEEE International Conference on Data Mining* (S. Tsumoto et al. Eds.), Los Alamitos, USA, 2006, ISBN 0769527027, pp. 643-647.
183. A. Memon, **P. Angelov**, H. Ahmed, An Approach to Real-Time Color-based Object Tracking, Proc. *2006 International Symposium on Evolving Fuzzy Systems*, 7-9 September 2006, Ambleside, UK, IEEE Press, ISBN 0-7803-9719-3, pp.81-87.
184. **P. Angelov**, D. Filev, Simpl_eTS: A Simplified Method for Learning Evolving Takagi-Sugeno Fuzzy Models, Proc. *The 2005 IEEE International Conference on Fuzzy Systems*, FUZZ-IEEE 2005, Reno, USA, 22-25 May 2005, ISSN 0-7803-9158-6/05, pp.1068-1073.
185. **P. Angelov**, C. Xydeas, D. Filev, On-line Identification of MIMO Evolving Takagi-Sugeno Fuzzy Models, Proc. *International Joint Conference on Neural Networks and International Conference on Fuzzy Systems*, IJCNN-FUZZ-IEEE, Budapest, Hungary, 25-29 July, 2004, ISBN 0-7803-8354-0, pp. 55-60.
186. **P. Angelov**, R. Buswell, Evolving Rule-based Models: A Tool for Intelligent Adaptation, Proc. *9th IFSA World Congress*, Vancouver, BC, Canada, 25-28 July 2001, pp.1062-1067.
187. **P. P. Angelov**, V.I. Hanby, R. A. Buswell and J.A. Wright, A Methodology for Modelling HVAC Components using Evolving Fuzzy Rules, Proc. *IEEE International Conference on Industrial Eng., Control and Instrumentation*, IECON-2000, 22-28 Oct. 2000, Nagoya, Japan, pp. 247-252.

B. НАУЧНИ МОНОГРАФИИ: 3(1); *2(1)

188. **P. Angelov**, X. Gu, *Empirical Approach to Machine Learning*, Springer International Publishing, Dec. 2018, ISBN 978-3-030-02384-3.
189. * **P. Angelov**, *Autonomous Learning Systems: From Data Streams to Knowledge in Real time*, John Wiley and Sons, 2013, ISBN: 978-1-1199-5152-0.
190. * **P. P. Angelov**, *Evolving Rule-based Models: A Tool for Design of Flexible Adaptive Systems*, Springer-Verlag, Heidelberg, Germany, 2002, 215 pp., ISBN 3-7908-1457-1.

Г. РЕДАКТОР НА КНИГИ: 4(1); *2(1)

191. ***P. P. Angelov** (Ed.), *Handbook in Computer Learning and Intelligence*, 2nd edition, World Scientific, 2 volumes, 1056pp., DOI: 10.1142/12498, Sept. 2022.
192. ***P. Angelov** (Ed.), *Handbook in Computational Intelligence*, World Scientific, 2 volumes, 870pp., 2016, ISBN: 978-0-470-28719-4.
193. **P. P. Angelov** (Ed.), *Sense and Avoid in UAS: Research and Applications*, 385pp., John Wiley and Sons, May 2012, ISBN: 978-0-470-97975-4.
194. **P. Angelov**, D. Filev and N. Kasabov (Eds.), *Evolving Intelligent Systems: Methodology and Applications*, 484 pp., John Wiley and Sons, April 2010, ISBN: 978-0-470-28719-4.

Д. ПАТЕНТИ: 3(0); *2(0)

195. **P. Angelov**, R. Bruncak, D Hutchison, S Simpson, P Smith, System for identifying illegitimate communications between computers by comparing evolution of data flows, USA patent 9847924, granted 19 December 2017, <https://patents.google.com/patent/US9847924B2/>
196. * **P. Angelov**, *Anomalous System State Identification*, USA patent 9390265, granted 12 July 2016, <http://www.google.com.af/patents/US9390265>
197. * **P. Angelov**, *Machine Learning (Collaborative Systems)*, USA patent 8250004, granted 21 August 2012, <http://www.google.com.pg/patents/US8250004>.

Е. ГЛАВИ ОТ КНИГИ: 9(4); *1(0)

198. X. Gu, **P. Angelov**, A Multi-Stream Deep Rule-based Ensemble System for Aerial Image Scene Classification, In: *Handbook on Computer Learning and Intelligence* (P. Angelov Ed., 2nd edition), World Scientific, 2022.
199. A. Ali, **P. Angelov**, Applying Computational Intelligence to Community Policing and Forensic Investigations, In *Community Policing - A European Perspective*, Springer International Publishing, pp.231-246, 2017, ISBN 978-3-319-53395-7, DOI 10.1007/978-3-319-53396-4_16.
200. A. Bux, P. Angelov, Z. Habib, Vision based human activity recognition: a review, In: *Advances in Computational Intelligence Systems*, Springer International Publishing, pp.341-371, 2017.
201. A. Ali, **P. Angelov**, X. Gu, Detecting anomalous behaviour using heterogeneous data, In: *Advances in Computational Intelligence Systems*, Springer International Publ., pp. 253-273, 2017.
202. **P. Angelov**, I Skrjanc, S. Blazic, A Robust Evolving Cloud-based Controller, In *Springer Handbook on Computational Intelligence*, (J. Kacprzyk and W. Pedrycz eds.), part G, chapter 75, pp. 1435-1449, 2015, ISBN 978-3-662-43504-5, DOI: 10.1007/978-3-662-43505-2_75.
203. * **P. Angelov**, Evolving Takagi-Sugeno Fuzzy Systems from Data Streams (eTS+), In *Evolving Intelligent Systems: Methodology and Applications* (Angelov P., D. Filev, N. Kasabov Eds.), John Wiley and Sons, pp. 21-50, ISBN: 978-0-470-28719-4, Feb. 2010.
204. D. Filev, **P. Angelov**, Algorithms for Real-Time Clustering and Generation of Rules from Data, In: *Advances in Fuzzy Clustering and its Applications* (J. Oliveira, W. Pedrycz Eds.), Wiley, NY, US, 2007, pp.353-370, ISBN 978-0-470-02760-8.
205. **P. Angelov**, X.-W. Zhou, Evolving Fuzzy Classifier for Real-time Novelty Detection and Landmark Recognition by a Mobile Robot, In: *Mobile Robots: The Evolutionary Approach* (N. Nedja, L. Coelho, L. Mourelle Eds.), *Studies in Comp. Intelligence*, Springer, 2007, pp.95-124, ISBN 978-3-540-49719-6.
206. **P. Angelov**, D. Filev, On-line Design of Takagi-Sugeno Models, In: 10th International *Fuzzy Systems Association World Congress, IFSA2003* (T. Bilgiç, B. De Baets, O. Kaynak Eds.), Lecture Notes in Artificial Intelligence, 2715, pp. 576-584, 2003.