Refereed Conference Papers (All):

1. A. Ashfahani, M. Pratama, E. Lughofer and E. Y. Kien Yee. **Autonomous Deep Quality Monitoring in Streaming Environments**. Proceedings of the International Joint Conference on Neural Networks, virtual event, to appear, 2021.

2. P. V. de Campos Souza, Y.-K. Wang and E. Lughofer. **Knowledge extraction about patients surviving breast cancer treatment through an autonomous fuzzy neural network**. Proceedings of the International Conference on Fuzzy Systems (FUZZ-IEEE), 2020.

3. A. J. Guimaraes, P. V. de Campos Souza, E. Lughofer. **Hybrid Model for Parkinson's Disease Prediction**. Proceedings of the International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU) 2020, Glasgow, Scotland, 2020.

4. G. Andonovski, O. Sipele, J.A. Iglesias, A. Sanchis, E. Lughofer and I. Škrjanc**. Detection of driver maneuvers using evolving fuzzy cloud-based system**. Proceedings of the IEEE SSCI Conference, Melbourne, Australia, 2020.

5. E. Lughofer, **Variants of Recursive Consequent Learning in Evolving Neuro-Fuzzy Systems**, *Proceedings of the IEEE Evolving and Adaptive Intelligent Systems EAIS) Conference 2020*, Bari, Italy.

6. E. Lughofer and M. Pratama, **On-line Sequential Ensembling of Fuzzy Systems**, *Proceedings of the IEEE Evolving and Adaptive Intelligent Systems EAIS) Conference 2020*, Bari, Italy.

7. C. Zain, A. Ashfahani, M. Pratama, E. Lughofer and E. Pardede, **Scalable Teacher-Forcing Networks under Spark Environments for Large-Scale Streaming Problems**, *Proceedings of the IEEE Evolving and Adaptive Intelligent Systems EAIS) Conference 2020*, Bari, Italy.

8. E. Lughofer, M. Pratama, C. Eitzinger and T. Radauer. **Dynamic Anomaly Detection based on Recursive Independent Component Analysis of Multi-Variate Residual Signals**. Proceedings of the 33rd annual European Simulation and Modelling Conference, Palma de Mallorca, Spain, 2019.

9. M. Pratama, M. de Carvalho, R. Xie, E. Lughofer and J. Lu. **ATL: Autonomous Knowledge Transfer from Many Streaming Processes.** *Proceedings of the 28th ACM International Conference on Information and Knowledge Management (CIKM) 2019*, Bejing, China, 2019.

10. A. Baghbanpourasl, E. Lughofer, P. Meyer-Heye, H. Zörrer and C. Eitzinger. **Virtual Quality Control using bidirectional LSTM networks and gradient boosting**. *Proceedings of the IEEE International Conference on Industrial Informatics (INDIN) 2019*, Helsinki, Finland, 2019.

11. W. Zellinger, B. Moser, M. Zwick, E. Lughofer, T. Natschläger, and S. Saminger-Platz. **Moment distances for comparing high-entropy distributions with application in domain adaptation [link]** *Proceedings of the International Conference on Computational Statistics (COMPSTAT), 2018.*

12. A.-C. Zavoianu, E. Lughofer, S. Saminger-Platz, W. Amrhein, **Two Enhancements for Improving the Convergence Speed of aRobust Multi-Objective Coevolutionary Algorithm**, *Proceedings of the Genetic and Evolutionary Computation Conference (GECCO) 2018*, Kyoto, Japan

13. E. Lughofer, R. Pollak, A.C. Zavoianu, M. Pratama, P. Meyer-Heye, H. Z\"orrer, C. Eitzinger, J. Lehner and T. Radauer, **Evolving Time-Series Based Prediction Models for Quality Criteria in a Multi-Stage**

Production Process. *Proceedings of the IEEE Evolving and Adaptive Intelligent Systems (EAIS) Conference,* to appear, 2018, Rhodos, Greece.

14. C. Zain, M. Pratama, E. Lughofer, M. Ferdaus and Q. Cai. **Big Data Analytics based on PANFIS MapReduce.** *Proceedings of the INNS Big Data Conference*, to appear, 2018, Bali, Indonesia.

15. R. Nikzad-Langerodi, W. Zellinger, E. Lughofer, T. Reischer and S. Saminger-Platz, **Domain-Invariant Partial Least Squares Regression: A Novel Calibration Transfer Algorithm**, Proceedings of the APACT 2018 Conference, Newcastle, 2018, to appear.

16. A.C. Zavoianu, E. Lughofer, R. Pollak, P. Meyer-Heye, C. Eitzinger, T. Radauer, **Multi-Objective Knowledge-Based Strategy for Process Parameter Optimization in Micro-Fluidic Chip Production**, Proceedings of the SSCI 2017 Conference (CIES workshop), Honolulu, Hawaii, to appear, 2017.

17. E. Lughofer, R. Pollak, A.C. Zavoianu, P. Meyer-Heye, H. Zörrer, C. Eitzinger, J. Haim, T. Radauer, **Self-Adaptive Time-Series Based Forecast Models for Predicting Quality Criteria in Microfluidics Chip Production**, Proceedings of the IEEE Cybernetics Conference 2017, Exeter, U.K., 2017.

18. R. Nikzad Langerodi, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **Improved drift handling in melamine resin production by ensemble partial least squares and incremental Page-Hinkley testing,** Proceedings of the EuroAnalysis 2017 Conference, Stockholm, Sweden.

19. E. Lughofer, M. Pratama and I. Skrjanc, **Incremental Rule Splitting in Generalized Evolving Fuzzy Regression Models**, Proceedings of the IEEE Conference on Evolving and Adaptive Intelligent Systems 2017, Ljubljana, Slovenia, pp 1--8.

20. W. Zellinger, E. Lughofer, S. Saminger-Platz, T. Grubinger and T. Natschläger. **Central Moment Discrepancy (CMD) for Domain-Invariant Representation Learning.** Proceedings of the 5th International Conference on Learning Representations (ICLR 2017), to appear, Toulon, France, 2017.

21. M. Pratama, P.P. Angelov, J. Lu, E. Lughofer, M. Seera and Chee Peng Lim. **A Randomized Neural Network for Data Streams.** Proceedings of the International Joint Conference on Neural Networks (IJCNN 2017), to appear, Anchorage, Alaska, U.S.A.

22. G. Andonovski, E. Lughofer and I. Skrjanc. **A Comparison of RECCO and FCPFC Controller on Nonlinear Chemical Reactor**. The 36th IASTED International Conference on Modelling, Identification and Control, Innsbruck, Austria, 2017, to appear.

23. R. Nikzad-Langerodi, E. Lughofer, T. Zahel, P. Sagmeister, C. Herwig. **A novel framework for automated feed phase identification**. Proceedings of the 4th European Conference on Process Analytics and Control Technology (EuroPACT) 2017, Potsdam, to appear.

24. A.C. Zavoianu, G. Bramerdorfer, E. Lughofer and S. Saminger-Platz, **Multi-Objective Topology Optimization of Electrical Machine Designs using Evolutionary Algorithms with Discrete and Real Encodings**, Proceedings of the EuroCAST Conference 2017, Las Palmas de Gran Canaria, Spain, to appear

25. E. Lughofer, G. Kronberger, M. Kommenda, S. Saminger-Platz, A. Promberger, F. Nickel, S. Winkler and M. Affenzeller. **Robust Fuzzy Modeling and Symbolic Regression for Establishing Accurate and Interpretable Prediction Models in Supervising Tribological Systems**, Proceedings of the 8th International Conference on Fuzzy Computation Theory and Applications (FCTA) 2016, pp. 51--63,

2016.

26. E. Weigl, A. Walch, U. Neissl, P. Meyer-Heye, W. Heidl, C. Eitzinger, T. Radauer and E. Lughofer. **MapView: Graphical Data Representation for Active Learning**, Proceedings of the iKnow Conference 2016, Graz, Austria, 2016.

27. E. Lughofer, R. Richter, U. Neissl, W. Heidl, C. Eitzinger and T. Radauer, **Advanced Linguistic Explanations of Classifier Decisions for Users' Annotation Support**, Proceedings of the IEEE Intelligent Systems Conference 2016, Sofia, Bulgaria, 2016, pp. 421—432

28. F. Serdio and E. Lughofer, **A Fault Detection and Isolation Framework for Repeatable and Comparable Experimentation**, Proceedings of the PHM Conference/Society, Bilbao, on-line and in press, 2016

29. M. Pratama, E. Lughofer, M.J. Err, W. Rahayu and T. Dillon, **Evolving Type-2 Recurrent Fuzzy Neural Network**, Proceedings of the IJCNN 2016 conference (under the scope of the WCCI 2016 conference), Vancouver, Canada, 2016, to appear

30. C. Cernuda, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **On-line Outlier/Redundancy Filtering and Semisupervised Incremental Calibration Modeling in Melamine Resin Production using FT-NIR Spectra**, Proceedings of the CAC Conference 2016, Barcelona

31. E. Lughofer, E. Weigl, W. Heidl, C. Eitzinger and T. Radauer, **Drift Detection in Data Stream Classification without Fully Labelled Instances**, Proceedings of the Evolving and Adaptive Intelligent Systems Conference (EAIS) 2015, Douai, France, pp. 1-8, 2015

32. J. Liu, E. Lughofer, X. Zeng and L. Wang, **Affective Property Computation of Visual Texture**, Proceedings of the 10'th International Conference on Intelligent Systems and Knowledge Engineering (ISKE'15), pp. 52-57, Taiwan, November 2015

33. A.-C. Zavoianu, E. Lughofer, G. Bramerdorfer, W. Amrhein and S. Saminger-Platz, **A Surrogate-Based Strategy for Multi-Objective Tolerance Analysis in Electrical Machine Design**, Proceedings of the 17th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC) 2015, Timisoara, 2015

34. C. Cernuda, E. Lughofer, T. Reischer, W. Kantner, M. Pawliczek and M. Brandstetter, **Dynamically Slided Chemometric Models for Robust On-line Prediction of Cloud Point in Melamine Resin Production**, Proceedings of the Conferentia Chemometrica, Budapest, September 2015

35. C. Cernuda, E. Lughofer, H. Klein, C. Forster, M. Pawliczek and M. Brandstetter, **Quantification of quality parameters in unfermented beer using a flexible support vector regression variation**, Proceedings of the SSC14 conference, 2015

36. E. Lughofer, **Efficient Sample Selection in Data Stream Regression using Evolving Generalized Fuzzy Models**, Proceedings of the International FUZZ-IEEE Conference 2015, Istanbul, pp. 1-8, 2015

37. E. Lughofer, E. Weigl, W. Heidl, C. Eitzinger and T. Radauer, **Fast and Economic Integration of New Classes On the Fly in Evolving Fuzzy Classifiers using Class Decomposition**, Proceedings of the International FUZZ-IEEE Conference 2015, Istanbul, pp. 1-8, 2015

38. G. Bramerdorfer, A.-C. Zavoianu, S. Silber, E. Lughofer, W. Amrhein, S**peed Improvements for the Optimization of Electrical Machines - a Survey**, Proceedings of the 2015 IEEE International Conference

on Electric Machines Drives Conference (IEMDC), Coeur d'Alene, Idaho, USA, 2015

39. E. Lughofer, E. Weigl, W. Heidl and T. Radauer, **Dynamic Inclusion of New Event Types in Visual Inspection using Evolving Classifiers**, Proceedings of the International Conference on Machine Learning and Applications (ICMLA 2014), pp. 487-494, Detroit, U.S.A., 2014

40. F. Serdio, C. Zavoianu, E. Lughofer, K. Pichler, T. Buchegger and H. Efendic, **Hybrid Genetic-Fuzzy Systems for Improved Performance in Residual-Based Fault Detection**, Proceedings of the 2014 Sixth World Congress on Nature and Biologically Inspired Computing (NaBIC), pp. 91-96, Porto, Portugal, 2014

41. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic, **Reducing False Positives for Residual-Based On-line Fault Detection by Means of Adaptive Filters**, Proceedings of the IEEE SMC 2014 Conference, San Diego, pp. 2803-2808, 2014

42. K. Pichler, M. Pichler, E. Lughofer, E.P. Klement, M.Huschenbett, T. Buchegger, **On the robustness of fault detection in reciprocating compressor valves**, Proceedings of the IEEE SMC 2014 Conference, San Diego, pp. 2733-2738, 2014

43. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic. **Gradient-based Fuzzy Fault Isolation in Residual-based Fault Detection Systems**. Proceedings of the WCCI 2014 Conference, Bejing, China, pp. 1428-1435, 2014

44. M. Pratama, S.G. Anavatti, M.J. Er and E. Lughofer. **A Novel Meta-Cognitive-based Scaffolding Classifier to Sequential Non-stationary Classification Problems**. Proceedings of the WCCI 2014 Conference, Bejing, China, pp. 369-376, 2014

45. C. Cernuda, E. Lughofer, P. Hintenaus, W. Märzinger and J. Kasberger. **Genetic Hybridization (Hybridgen): A Cooperative Coevolution Algorithm for Variable Selection.** Proceedings of the CAC 2014 conference, Richmond, Virginia, 2014.

46. M. Pratama, S.G. Anavatti and E. Lughofer. **An Incremental Classifier from Data Streams**. in: A. Likas, K. Blekas, and D. Kalles (Eds.): SETN 2014, LNCS 8445, pp. 15--28, Springer International Publishing Switzerland, 2014.

47. C. Cernuda, E. Lughofer, P. Hintenaus, W. Maerzinger, T. Reischer and J. Kasberger, **Fuzzy Finite State Machine for Multivariate Calibration. Application to Near-Infrared Spectroscopy**, Proceedings of the EuroPACT conference, Barcelona, Spain, 2014.

48. E. Lughofer, C. Cernuda and M. Pratama, **Generalized Flexible Fuzzy Inference Systems from Data Streams**, Proceedings of the International Conference on Machine Learning and Applications (ICMLA 2013), pp 1-7, 2013

49. A.-C. Zavoianu, E. Lughofer, G. Bramerdorfer, W. Amrhein, and E.P. Klement, **Effective Ensemble-based Method for Creating On-the-Fly Surrogate Fitness Functions for Multi-Objective Evolutionary Algorithms,** Proceedings of the 5th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing (SYNASC) 2013, pp. 235-242, Timisoara, Romania, 2013

50. A.-C. Zavoianu, E. Lughofer, W. Amrhein and E.P. Klement, **Efficient Multi-Objective Optimization using 2-Population Cooperative Coevolution**, Proceedings of the EUROCAST 2013 Conference, LNCS vol. 8111, pp. 251-258, Las Palmas de Gran Canaria, Spain, 2013

51. C. Cernuda, E. Lughofer, G. Mayr, T. Röder, P. Hintenaus, W. Märzinger and J. Kasberger, **Decremental Active Learning for Optimized Self-Adaptive Calibration in Viscose Production**, Proceedings of the

SSC 2013 Conference, Stockholm, 2013

52. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger, M. Pichler and H. Efendic, **Multivariate Fault Detection in the Residual Space using VARMA and Orthogonal Transformations**, PHM 2013 Conference, pp. 548-555, New Orleans, 2013

53. C. Cernuda, E. Lughofer, P. Hintenaus, W. Märzinger, T. Reischer, M. Pawliczek, J. Kasberger, **Ensembled Self-Adaptive Fuzzy Calibration Models for On-line Cloud Point Prediction,** Proceedings of the EUSFLAT 2013 conference, pp. 17-24, Milano, Italy, 2013

54. F. Serdio, E. Lughofer, K. Pichler, T. Buchegger and H. Efendic, **Data-Driven Residual-Based Fault Detection for Condition Monitoring in Rolling Mills**, Proceedings of the IFAC Conference on Manufacturing Modeling, Management and Control (MIM) 2013, St. Petersburg, 2013, pp. 1546-1551. **(awarded as best paper)**

55. K. Pichler, E. Lughofer, M. Pichler, T. Buchegger, E.P. Klement, M. Huschenbett, **Detecting broken Reciprocating Compressor Valves in the pV-diagram**, Proceedings of the 2013 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, 2013

56. M. Pratama, S. Anavatti and E. Lughofer, **Evolving Fuzzy Rule-Based Classifier Based on GENEFIS**, Proceedings of the FUZZ-IEEE 2013 Conference, Hyderabad, India, 2013, pp.1-8

57. C. Zavoianu, E. Lughofer, W. Koppelstaetter, G. Weidenholzer, W. Amrhein, E.P. Klement, **On the Performance of Master-Slave Parallelization Methods for Multi-Objective Evolutionary Algorithms**, Proceedings of the ICAISC 2013 conference, Zakopane, Poland, pp. 122-134

58. A. Shaker and E. Lughofer, **Resolving Global and Local Drifts in Data Stream Regression using Evolving Rule-Based Models**, 2013 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS) (under the scope of IEEE SSCI 2013 Conference), Singapore, pp. 9-16, 2013

59. M. Pratama, S. Anavatti, M. Garret and E. Lughofer, **Online Identification of Complex Multi-Input-Multi-Output System Based on Generic Evolving Neuro-Fuzzy Inference System**, Proceedings of the IEEE EAIS 2013 workshop (SSCI 2013 conference), pp. 106-113, Singapore, 2013

60. E. Lughofer, **eVQ-AM: An Extended Dynamic Version of Evolving Vector Quantization**, Proceedings of the 2013 IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS), pp. 40-47, Singapore, 2013

61. C. Zavoianu, G. Bramerdorfer, E. Lughofer, W. Amrhein and E.P. Klement, **A Hybrid Soft Computing Approach for Optimizing Design Parameters of Electrical Drives**, in: Soft Computing Models in Industrial and Environmental Applications (Proceedings of the SOCO 2012 Conference), LNAI vol. 181, pp. 347-358, Springer, Berlin Heidelberg, 2012

62. G. Mayr, L. Suppan, F. Zeppetzauer, C. Cernuda, E. Lughofer, H. Trinker, P. Hintenaus, W. Märzinger and T. Roder. **Scope and limitations of spectroscopic methods for on- and in-line analysis at the viscose production**. Proceedings of the 245th ACS National Meeting}, New Orleans, U.S.A., 2013.

63. C. Cernuda, E. Lughofer, W. Märzinger and W. Summerer. **Hybrid evolutionary particle swarm optimization and ant colony optimization for variable selection. Application to near infrared spectroscopy.** Proceedings of the 3rd World Conference on Information Technology 2012, AWERProcedia Information Technology & Computer Science, Vol. 4, pp. 6--13, Barcelona, Spain, 2012.

64. E. Lughofer, **Navigating Interpretability Issues in Evolving Fuzzy Systems**, Proceedings of the Sixth International Conference on Scalable Uncertainty Management 2012, LNAI, vol. 7520, Springer, Marburg, Germany, 2012, pp. 141-153

65. K. Pichler, E. Lughofer, T. Buchegger, E.P. Klement, M. Huschenbett. **A Visual Method to Detect Broken Reciprocating Compressor Valves Under Varying Load Conditions**. Proceedings of the 13th Mechatronics Forum International Conference, 2012.

66. K. Pichler, E. Lughofer, T. Buchegger, E.P. Klement, M. Huschenbett. **Detecting Cracks in Reciprocating Compressor Valves using Pattern Recognition in Frequency Space.** Proceedings of the ASME 2012 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, SMASIS2012, Stone Mountain, Georgia, USA, 2012, pp. 749--756.

67. C. Cernuda, E. Lughofer, W. Märzinger, W. Summerer. **Waveband Selection in NIR Spectra using Enhanced Genetic Operators**. Proceedings of the CAC 2012 conference, Budapest, 2012, pp. 37.

68. C. Cernuda, E. Lughofer, L. Suppan, T. Röder, R. Schmuck, P. Hintenaus, W. Märzinger, J. Kasberger. **Dynamic Quantification of Process Parameters in Viscose Production with Evolving Fuzzy Systems.** Proceedings of the IPMU 2012, Advances on Computational Intelligence, CCIS, vol. 297, Springer, pp. 1-10, 2012.

69. E. Lughofer, **On-line active learning based on enhanced reliability concepts**, Proceedings of the IEEE Conference on Evolving and Adaptive Intelligent Systems (EAIS) 2012, pp. 1-6, IEEE, Madrid, Spain, 2012

70. E. Lughofer, **Dynamic Evolving Cluster Models Using On-line Split-and-Merge Operations**, Proc. of the 10th International Conference in Machine Learning and Applications (ICMLA) 2011, pp. 20-26, Honolulu, Hawaii, 2011

71. M. Nasiri, E. Hüllermeier, R. Senge and E. Lughofer, **Comparing Methods for Knowledge-Driven and Data-Driven Fuzzy Modeling: A Case Study in Textile Industry**, Proceedings of the IFSA World Congress 2011, Surabaya and Bali Island, Indonesia, 2011

72. B. Trawinski, K. Trawinski, E. Lughofer and T. Lasota, **Investigation of Evolving Fuzzy Systems Methods FLEXFIS and eTS on Predicting Residential Prices**, Proceedings of the 9th International Workshop on Fuzzy Logic and Applications (WILF) 2011, pp. 123-130, Trani, Italy, 2011

73. E. Lughofer, B. Trawinski, K. Trawinski and T. Lasota, **On-line Valuation of Residential Premises with Evolving Fuzzy Models**, Proceedings of the Hybrid Artificial Intelligent Systems (HAIS) Conference 2011, pp. 107-115, Wroclaw, Poland, 2011

74. E. Lughofer and E. Hüllermeier, **On-line Redundancy Elimination in Evolving Fuzzy Regression Models using a Fuzzy Inclusion Measure**, Proceedings of the EUSFLAT 2011 Conference, pp. 380-387, Aix-Les-Bains, France, 2011

75. E. Lughofer, **All-Pairs Evolving Fuzzy Classifiers for On-line Multi-Class Classification Problems**, Proceedings of the EUSFLAT 2011 Conference, pp. 372--379, Aix-Les-Bains, France, 2011

76. W. Heidl, S. Thumfart, E. Lughofer, C. Eitzinger and E.P. Klement, **Decision Tree-based Analysis Suggests Structural Gender Differences in Visual Inspection**, Proceedings of AIA2011, IASTED International Conference on Artificial Intelligence and Applications, pp. 142-149, Innsbruck, Austria, 2011

77. E. Lughofer, **On Dynamic Selection of the Most Informative Samples in Classification Problems**, Proc. of the 9th International Conference in Machine Learning and Applications (ICMLA) 2010, pp. 573-579, Washington D.C., 2010

78. W. Heidl, S. Thumfart, E. Lughofer, C. Eitzinger, E.P. Klement. **Classifier-Based Analysis of Visual Inspection: Gender Differences in Decision-Making**, Proceedings of IEEE Conference on Systems, Man and Cybernetics, SMC 2010}, pp. 113--120, Istanbul, 2010.

79. E. Lughofer, V. Macian, C. Guardiola and E.P. Klement, **Data-Driven Design of Takagi-Sugeno Fuzzy Systems for Predicting NOx Emissions**, E. Hüllermeier and R. Kruse and F. Hoffmann, Proc. of the 13th International Conference on Information Processing and Management of Uncertainty, IPMU 2010, Part II (Applications), CCIS, vol. 81, Springer, 1-10, Dortmund, Germany, 2010

80. E. Lughofer, **On Dynamic Soft Dimension Reduction in Evolving Fuzzy Classifiers**, E. Hüllermeier and R. Kruse and F. Hoffmann, Proc. of the 13th International Conference on Information Processing and Management of Uncertainty (IPMU) 2010, LNAI, vol. 6178, Springer, pp. 79-88, Dortmund, Germany, 2010

81. D. Sannen, E. Lughofer and H. Van Brussel, **Increasing On-line Classification Performance Using Incremental Classifier Fusion**, pp. 101—107, Proc. of International Conference on Adaptive and Intelligent Systems (ICAIS'09), Klagenfurt, Austria, 2009

82. E. Lughofer and P. Angelov, **Detecting and Reacting on Drifts and Shifts in On-Line Data Streams with Evolving Fuzzy Systems**, Proceedings of the IFSA/EUSFLAT 2009 conference, Lisbon, Portugal, pp. 931--937, 2009

83. E. Lughofer and S. Kindermann, **Rule Weight Optimization and Feature Selection in Fuzzy Systems with Sparsity Constraints**, Proceedings of the IFSA/EUSFLAT 2009 conference, Lisbon, Portugal, pp. 950--956, 2009

84. H. Schoener, B. Moser and E. Lughofer**, On Preprocessing Multi-Channel Data for Online Process Monitoring**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, pp. 414--420, 2008

85. E. Lughofer, J. E. Smith, M. A. Tahir, P. Caleb-Solly, C. Eitzinger, D. Sannen and H. van Brussel, **On Human-Machine Interaction During On-Line Image Classifier Training**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, 2008, pp. 995—1001

86. E. Lughofer, **Evolving Vector Quantization for Classification of On-Line Data Streams**, Proc. of the Conference on Computational Intelligence for Modelling, Control and Automation (CIMCA 2008), Vienna, Austria, pp. 780--786, 2008

87. E. Lughofer and S. Kindermann, **Improving the Robustness of Data-Driven Fuzzy Systems with Regularization**, Proc. of the IEEE World Congress on Computational Intelligence (WCCI) 2008, Hongkong, pp. 703--709, 2008

88. C. Eitzinger, M. Gmainer, W. Heidl and E. Lughofer, **Increasing Classification Performance with Adaptive Features**, A. Gasteratos and M. Vincze and J.K. Tsotsos, Proceedings of ICVS 2008, LNCS, vol. 5008, Springer, pp. 445--453, Santorini Island, Greece, 2008

89. D. Sannen, M. Nuttin, J.E. Smith, M.A. Tahir, E. Lughofer and C. Eitzinger, **An Interactive Self-Adaptive On-Line Image Classification Framework**, A. Gasteratos and M. Vincze and J.K. Tsotsos, Proceedings of ICVS 2008, LNCS, vol. 5008, Springer, pp. 173--180, Santorini Island, Greece, 2008

90. E. Lughofer and C. Guardiola, **Applying Evolving Fuzzy Models with Adaptive Local Error Bars to On-Line Fault Detection**, Proceedings of Genetic and Evolving Fuzzy Systems 2008, Witten-Bommerholz, Germany, pp. 35--40, 2008

91. E. Lughofer, P. Angelov and X. Zhou, **Evolving Single- and Multi-Model Fuzzy Classifiers with FLEXFIS-Class**, Proceedings of FUZZ-IEEE 2007, London, UK, pp. 363--368, 2007

92. P. Angelov, X. Zhou, D. Filev and E. Lughofer, **Architectures for Evolving Fuzzy Rule-based Classifiers,** Proceedings of SMC 2007, Montreal, Canada, pp. 2050--2055, 2007

93. J. Botzheim, E. Lughofer, E.P. Klement, L. K{oczy and T.D. Gedeon, **Separated Antecedent and Consequent Learning for Takagi-Sugeno Fuzzy Systems**, Proceedings of FUZZ-IEEE 2006, Vancouver, Canada, pp. 2263--2269, 2006

94. E. Lughofer, **Process Safety Enhancements for Data-Driven Evolving Fuzzy Models**, Proceedings of 2nd Symposium on Evolving Fuzzy Systems (EFS '06), Lake District, UK, pp. 42--48, 2006 (awarded as best paper)

95. E. Lughofer and U. Bodenhofer, **Incremental Learning of Fuzzy Basis Function Networks with a Modified Version of Vector Quantization**, Proceedings of IPMU 2006, volume 1, Paris, France, pp. 56--63, 2006

96. E. Lughofer and E.P. Klement, **FLEXFIS: A Variant for Incremental Learning of Takagi-Sugeno Fuzzy Systems**, Proceedings of FUZZ-IEEE 2005, Reno, Nevada, U.S.A., 915--920, 2005

97. E. Lughofer, E. Hüllermeier and E.P. Klement, **Improving the Interpretability of Data-Driven Evolving Fuzzy Systems**, Proceedings of EUSFLAT 2005, Barcelona, Spain, pp. 28--33, 2005

98. P. Angelov and E. Lughofer and E.P. Klement, **Two Approaches to Data-Driven Design of Evolving Fuzzy Systems: eTS and FLEXFIS**, Proceedings of NAFIPS 2005, Ann Arbor, Michigan, U.S.A., 2005, pp. 31—35

99. E. Lughofer and E.P. Klement, **Premise Parameter Estimation and Adaptation in Fuzzy Systems with Open-Loop Clustering Methods**, Proceedings of FUZZ-IEEE 2004, Budapest, Hungary, 2004

100. W. Groissböck, E. Lughofer, and E.P. Klement. **A comparison of variable selection methods with the main focus on orthogonalization**. In M. Lopez-Diaz, M.A. Gil, P. Grzegorzewski, O. Hryniewicz, J. Lawry (Eds.), Soft Methodology and Random Information Systems, Advances in Soft Computing, Springer, Berlin, Heidelberg, New York, pp. 479--486, 2004.

101. J. Galindo, C. Guardiola, J.M. Lujan, E. Lughofer and E.P. Klement, **Fault Detection in Engine Measurement Systems by a Model-Based Approach**, Proceedings SAE 2004, 2004

102. E. Lughofer, E.P. Klement, J.M. Lujan and C. Guardiola, **Model-Based Fault Detection in Multi-Sensor Measurement Systems**, Proceedings of IEEE IS 2004, pp. 184--189, Varna, Bulgaria, 2004

103. E. Lughofer and E.P. Klement, **Online adaptation of Takagi-Sugeno fuzzy inference systems**, Proceedings of CESA---IMACS Multiconference, Lille, France, 2003

104. E. Lughofer and H. Efendic and L. Del Re and E.P. Klement, **Filtering of Dynamic Measurements in Intelligent Sensors for Fault Detection based on Data-Driven Models**, Proceedings of the IEEE CDC Conference, pp. 463--468, Maui, Hawaii, 2003

105. A. Schrempf, L. Del Re, W. Groissböck, E. Lughofer, E.P. Klement, and G. Frizberg. **Automatic engine modelling for failure detection**. In: Proc. 2001 ASME International Mechanical Engineering Congress and Exposition, 2001