

## List of publications of Dr. Nikhil R. Pal

### Books

1. **Evolutionary and Swarm Intelligence Algorithms**, *Springer Verlag*, (Co-editors J. Bansal and P. Singh), 2018.
2. **Advanced Techniques in Data mining and Knowledge discovery**, *Springer Verlag*, (co-editor L. C. Jain), 2005.
3. **Neural Information Processing- ICONIP 2004**, Springer Verlag, LNCS 3316, (Co-editor N. Kasabov, R Mudi, S. Pal and S. Parui), 2004.
4. **Advances in Soft Computing - AFSS 2002**, *Springer Verlag*, LNAI 2275, 2002 (Co-editor M. Sugeno)
5. **Pattern Recognition in Soft Computing Paradigm**, *World Scientific*, FLSI Vol. 2, 2001 (Editor)
6. **Fuzzy Models and Algorithms for Pattern Recognition and Image Processing**, *Kluwer Academic Publisher*, 1999, (co-authored with J. C. Bezdek, J. M. Keller and R. Krishnapuram)
7. **Advances in Pattern Recognition and Digital Techniques- ICAPRDT'99**, *Narosa Publishing Co.*, India, 1999 (Co-editors A. K. De and J. Das)

### Journal publications:

1. Guangdong Xue, Jian Wang, Senior Member, IEEE, Kai Zhang, and Nikhil R. Pal, High-Dimensional Fuzzy Inference Systems, *IEEE Transactions on Systems, Man and Cybernetics: Systems*, DOI:10.1109/TSMC.2023. August 2023.
2. Faliang Yin, Weiguo Li, Kai Zhang, Jian Wang, and Nikhil R. Pal, Pseudo Inverse versus Iterated Projection: Novel Learning Approach and its Application on Broad Learning System, *Information Sciences* Volume 649, November 2023, 119648, DOI:https://doi.org/10.1016/j.ins.2023.119648.
3. Y. Wang, J. Wang and N. R. Pal, "Supervised Feature Selection via Collaborative Neurodynamic Optimization," in *IEEE Transactions on Neural Networks and Learning Systems*, 2022, doi: 10.1109/TNNLS.2022.3213167.
4. Guangdong Xue, Qin Chang, Jian Wang, Kai Zhang, and Nikhil R. Pal, An Adaptive Neuro-Fuzzy System with Integrated Feature Selection and Rule Extraction for High-Dimensional Classification Problems, *IEEE Transactions on Fuzzy Systems*, Vol: 31(7), pp 2167 - 2181, DOI: 10.1109/TFUZZ.2022.3220950, 2023.
5. Suchismita Das and Nikhil R Pal, Supervised Learning of Explicit Maps with Ability to Correct Distortions in the Target Output for Manifold Learning, *Information Sciences*, Volume 614, October 2022, Pages 311-324, https://doi.org/10.1016/j.ins.2022.06.069
6. S. Choudhury and Nikhil R Pal, Fuzzy Clustering of single-view incomplete data using a multi-view framework, *IEEE Transactions on Fuzzy Systems* Vol: 30 (12), December 2022, pp 5312 - 5323, DOI: 10.1109/TFUZZ.2022.3173673.
7. Xiaoling Gong, L. Yu, J. Wang, A. K. Zhang, A. X. Bai, and Nikhil R. Pal, Unsupervised feature selection via adaptive autoencoder with redundancy control, *Neural Networks*, Volume 150, June 2022, Pages 87-101.
8. Huaqing Zhang, Yunqi Jiang, Jian Wang, Kai Zhang, and Nikhil R. Pal, Bilateral Sensitivity Analysis: A Better Understanding of a Neural Network and its application to Reservoir Engineering, *International Journal of Machine Learning and Cybernetics*, Vol 13, pp 1352152, 2022, DOI: https://doi.org/10.1007/s13042-022-01511-z
9. Shujun Wu, Jian Wang, Huaying Sun, Kai Zhang and Nikhil R. Pal, Fractional Approximation of Broad Learning System, *IEEE Transactions on Cybernetics* DOI 10.1109/TNSRE.2021.3126264, 2022

10. Yu-Cheng Chang, Yu-Kai Wang, Nikhil R Pal, and Chin-Teng Lin, Exploring Covert States of Brain Dynamics via Fuzzy Inference Encoding, *IEEE Transactions on Neural Systems & Rehabilitation Engineering*, VOL. 29, 2464-2473, DOI:10.1109/TNSRE.2021.3126264; 2021
11. Jian Wang; Qin Chang; Tao Gao; Kai Zhang; Nikhil Pal, "Sensitivity Analysis of Takagi-Sugeno Fuzzy Neural Network", *Information Sciences*, Vol. 582, Jan. 2022, pp 725-749, <https://doi.org/10.1016/j.ins.2021.11016>
12. Xiaofan Li, Nikhil R. Pal, Huiyuan L and Tingwen Huang, "Intermittent Event-triggered Exponential Stabilization for State-Dependent Switched Fuzzy Neural Networks With Mixed Delays", *IEEE Transactions on Fuzzy Systems*, DOI: 10.1109/TFUZZ.2021.3112256; 2021.
13. S. Choudhury and Nikhil R Pal, "Classification of incomplete data integrating neural networks and evidential reasoning" *Neural Computing and Applications*, DOI: <https://doi.org/10.1007/s00521-021-06267-1>; 2021.
14. S. Das and Nikhil R Pal, Nonlinear Dimensionality Reduction for Data Visualization: An Unsupervised Fuzzy Rule-based Approach, *IEEE Transactions on Fuzzy Systems*, DOI: 10.1109/TFUZZ.2021.3076583, 2021.
15. A Bhandari and Nikhil R Pal, Can Edges help Convolution Neural Networks in Emotion recognition? , *Neurocomputing* , vol 433, pp 162-168, <https://doi.org/10.1016/j.neucom.2020.12.0922020>; 2021.
16. Nikhil R Pal, In Search of Trustworthy and Transparent Intelligent Systems with Human-like Cognitive and Reasoning Capabilities, *Frontiers in Robotics and AI- Computational Intelligence in Robotics* , Frontiers in Robotics and AI, 7, p.76, doi: 10.3389/frobt.2020.00076
17. Wang, Jian; Zhang, Huaqing; Wang, Junze; PU, Yi-Fei; Pal, Nikhil R. "Feature Selection using a Neural Network With Group Lasso Regularization and Controlled Redundancy" *IEEE Transactions on Neural Networks and Learning Systems*, DOI: 10.1109/TNNLS.2020.2980383, 32(3), 1110-1123, 2020.
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22. Suvra Jyoti Choudhury and Nikhil R Pal, Imputation of missing data with neural networks for classification, *Knowledge-Based Systems*, DOI : 10.1016/j.knosys.2019.07.009, 2019.
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29. Bikram Karmakar, Nikhil R Pal, How to make a neural network say "Don't know". *Information Sciences*.Vol 430-431, pp 444-466, March 2018
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