

Publications

Journals:

- [78] D. Singh, **Nishchal K. Verma**, A. K. Ghosh, and A. Malagaudanavar, "An application of interval type-2 fuzzy model based control system for generic aircraft," *Applied Soft Computing*, vol. 121, May 2022. DOI: 10.1016/j.asoc.2022.108721 ([PDF](#))
- [77] T. Sharma, **Nishchal K. Verma**, and S. Masood, "Mixed fuzzy pooling in convolutional neural networks for image classification," *Multimedia Tools and Applications*, 2022. DOI: 10.1007/s11042-022-13553-0 ([PDF](#))
- [76] V. Singh and **Nishchal K. Verma**, "Gene Expression Data Analysis Using Feature Weighted Robust Fuzzy c-Means Clustering," *IEEE Transactions on NanoBioscience*, March 2022. (Early Access) DOI: 10.1109/TNB.2022.3157396 ([PDF](#))
- [75] N. K. Dhar, **Nishchal K. Verma**, and L. Behera, "Dynamically Triggered Control for System Connected to Network With Permissible Imperfections," *IEEE Systems Journal*, Jan. 2022. (Early Access) DOI: 10.1109/JSYST.2021.3137363 ([PDF](#))
- [74] D. Singh, **Nishchal K. Verma**, A. K. Ghosh, and A. K. Malagaudanavar, "An Approach Towards the Design of Interval Type-3 T-S Fuzzy System," *IEEE Transactions on Fuzzy Systems*, Dec. 2021. (Early Access) DOI: 10.1109/TFUZZ.2021.3133083 ([PDF](#))
- [73] A. K. Sharma and **Nishchal K. Verma**, "Quick Learning Mechanism with Cross-Domain Adaptation for Intelligent Fault Diagnosis," *IEEE Transactions on Artificial Intelligence*, Oct. 2021. (Accepted for publication)
- [72] S. Dixit, **Nishchal K. Verma**, and A. K. Ghosh, "Intelligent fault diagnosis of rotary machines: conditional auxiliary classifier GAN coupled with meta learning using limited data," *IEEE Transactions on Instrumentation and Measurement*, pp. May 2021. (Early Access) DOI: 10.1109/TIM.2021.3082264 ([PDF](#))
- [71] T. Sharma and **Nishchal K. Verma**, "Adaptive interval Type-2 fuzzy filter: an AI agent for handling uncertainties to preserve image naturalness," *IEEE Transactions on Artificial Intelligence*, pp. 1-10, May 2021. (Early Access) DOI: 10.1109/TAI.2021.3077522 ([PDF](#))
- [70] V. K. Tripathi, A. K. Kamath, L. Behera, **Nishchal K. Verma**, and S. Nahavandi, "An adaptive fast terminal sliding-mode controller with power rate proportional reaching law for quadrotor position and altitude tracking," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, pp. 1-14, April 2021. (Early Access) DOI: 10.1109/TSMC.2021.3072099 ([PDF](#))
- [69] N. K. Dhar, A. Nandanwar, **Nishchal K. Verma**, and L. Behera, "Online Nash solution in networked multi-robot formation using stochastic near-optimal control under dynamic events," *IEEE Transactions on Neural Networks and Learning Systems*, pp. 1-14, Jan. 2021. (Early Access) DOI: 10.1109/TNNLS.2020.3044039 ([PDF](#))
- [68] T. Sharma and **Nishchal K. Verma**, "Estimating depth and global atmospheric light for image dehazing using Type-2 fuzzy approach," *IEEE Transactions on Emerging Topics in Computational Intelligence*, pp. 1-10, Oct. 2020. (Early Access) DOI: 10.1109/TETCI.2020.3032970 ([PDF](#))

- [67] S. Maurya, V. Singh, **Nishchal K. Verma**, and C. K. Mechefske, “Condition based monitoring in variable machine running conditions using low-level knowledge transfer with DNN,” *IEEE Transactions on Automation Science and Engineering*, pp. 1-15, Oct. 2020. (Early Access) DOI: 10.1109/TASE.2020.3028151 ([PDF](#))
- [66] P. Singh, S. Gupta, L. Behera, **Nishchal K. Verma**, and S. Nahavandi, “Perching of nano-quadrotor using self-trigger finite time second order continuous control”, *IEEE Systems Journal*, pp. 1-11, Sept. 2020. (Early Access) DOI: 10.1109/JSYST.2020.3021579 ([PDF](#))
- [65] V. Singh and **Nishchal K. Verma**, “Intelligent condition based monitoring techniques for bearing fault diagnosis,” *IEEE Sensors Journal*, Sept. 2020. (Early Access) DOI: 10.1109/JSEN.2020.3021918 ([PDF](#))
- [64] V. K. Tripathi, L. Behera, and **Nishchal K. Verma** “Finite-time super twisting sliding mode controller based on higher-order sliding mode observer for real-time trajectory tracking of a quadrotor,” *IET Control Theory & Applications*, vol. 14, issue no. 16, pp. 2359-237, Nov. 2020. DOI: 10.1049/iet-cta.2020.0348 ([PDF](#))
- [63] S. Dixit and **Nishchal K. Verma**, “Intelligent condition based monitoring of rotary machines with few samples,” *IEEE Sensors Journal*, July 2020. (Early Access) DOI: 10.1109/JSEN.2020.3008177 ([PDF](#))
- [62] P. Singh, P. Agrawal, A. Nandanwar, L. Behera, **Nishchal K. Verma**, S. Nahavandi, and M. Jamshidi, “Multivariable event-triggered generalised super-twisting controller for safe navigation of non-holonomic mobile robot,” *IEEE Systems Journal*, April 2020. (Early Access) DOI: 10.1109/JSYST.2020.2985730 ([PDF](#))
- [61] A. K. Sharma, D. Singh, V. Singh, and **Nishchal K. Verma**, “Aerodynamic modeling of ATTAS aircraft using Mamdani fuzzy inference network”, *IEEE Transactions on Aerospace and Electronic Systems*, vol. 56, no. 5, pp. 3566-3576, Oct. 2020. DOI: 10.1109/TAES.2020.2975447 ([PDF](#))
- [60] N. K. Dhar, **Nishchal K. Verma**, and L. Behera, “An online event-triggered near optimal controller for Nash solution in interconnected system,” *IEEE Transactions on Neural Networks and Learning Systems*, Feb. 2020. (Early Access) DOI: 10.1109/TNNLS.2020.2969249 ([PDF](#))
- [59] S. Maurya, V. Singh, and **Nishchal K. Verma**, “Condition monitoring of machines using fused features from EMD based local energy with DNN,” *IEEE Sensors Journal*, vol. 20, no. 15, pp. 8316-8327, July 2019. DOI: 10.1109/JSEN.2019.2927754 ([PDF](#))
- [58] P. K. Mishra, N. K. Dhar, and **Nishchal K. Verma**, “Adaptive neural network control of MIMO nonaffine nonlinear systems with asymmetric time-varying state constraints,” *IEEE Transactions on Cybernetics*, July 2019. (Early Access) DOI: 10.1109/TCYB.2019.2923849 ([PDF](#))
- [57] V. Singh, **Nishchal K. Verma**, and Y. Cui, “Type-2 fuzzy PCA approach in extracting salient features for molecular cancer diagnostics and prognostics,” *IEEE Transactions on NanoBioscience*, vol. 18, no. 3, pp. 482-489, July 2019. DOI: 10.1109/TNB.2019.2917814 ([PDF](#))
- [56] R. Dev and **Nishchal K. Verma**, “Robust noisiness measure based improved generalized fuzzy peer group for removal of mixed noise from color image”, *IEEE Signals Processing Letters*, vol. 26, no. 2, pp. 267-271, Feb. 2019. DOI: 10.1109/LSP.2018.288943 ([PDF](#))

- [55] A. Mustafa, N. K. Dhar, and **Nishchal K. Verma**, “Event-triggered sliding mode control for trajectory tracking of nonlinear systems”, *IEEE/CAA Journal of Automatica Sinica*, vol. 7, no. 1, pp. 307-314, Jan. 2020. DOI: 10.1109/JAS.2019.1911654 ([PDF](#))
- [54] P. Singh, P. Agrawal, H. Karki, A. Shukla, **Nishchal K. Verma**, and L. Behera, “Vision based guidance and switching based sliding mode controller for a mobile robot in the cyber physical framework”, *IEEE Transactions on Industrial Informatics*, vol. 15, no. 4, pp. 1985-1997, Apr. 2019. DOI: 10.1109/TII.2018.2869622 ([PDF](#))
- [53] A. Kar, N. K. Dhar, P. K. Mishra and **Nishchal K. Verma**, “Relative vehicle displacement approach for path tracking adaptive controller with multisampling data transmission,” *IEEE Transactions on Emerging Topics in Computational Intelligence*, vol. 3, no. 4, pp. 322-336, Aug. 2019. DOI: 10.1109/TETCI.2018.2865205 ([PDF](#))
- [52] A. Kar, N. K. Dhar, and **Nishchal K. Verma**, “Event-triggered adaptive neural network controller in a cyber-physical frameworks,” *IEEE Transactions on Industrial Informatics*, vol. 15, no. 4, pp. 2101-2111, Apr. 2019, DOI: 10.1109/TII.2018.2861904 ([PDF](#))
- [51] R. Dev and **Nishchal K. Verma**, “Generalized fuzzy peer group for removal of mixed noise from color image,” *IEEE Signal Processing Letters*, vol. 25, no. 9, pp. 1330-1334, Sept. 2018. DOI: 10.1109/LSP.2018.2852140 ([PDF](#))
- [50] R. K. Sevakula, V. Singh, **Nishchal K. Verma**, C. Kumar and Y. Cui, “Transfer learning for molecular cancer classification using deep neural networks,” *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, vol. 16, no. 6, pp. 2089-2100, Nov.-Dec. 1 2019. DOI: 10.1109/TCBB.2018.2822803 ([PDF](#))
- [49] V. Singh, R. Dev, N. K. Dhar, P. Agrawal, and **Nishchal K. Verma**, “Adaptive Type-2 fuzzy approach for filtering salt and pepper noise in grayscale images,” *IEEE Transactions on Fuzzy Systems*, vol. 26, no. 5, pp. 3170-3176, Oct. 2018. DOI: 10.1109/TFUZZ.2018.2805289 ([PDF](#))
- [48] N. K. Dhar, **Nishchal K. Verma**, and L. Behera, “Adaptive critic based event-triggered control for HVAC system,” *IEEE Transactions on Industrial Informatics*, vol. 14, no. 1, pp. 178-188, Jan. 2018. DOI: 10.1109/TII.2017.2725899 ([PDF](#))
- [47] R. K. Sevakula and **Nishchal K. Verma**, “Compounding general purpose membership functions for fuzzy support vector machine in noisy environment,” *IEEE Transactions on Fuzzy Systems*, vol. 25, no.6, pp. 1446-1459, June 2017. DOI: 10.1109/TFUZZ.2017.2722421 ([PDF](#))
- [46] **Nishchal K. Verma**, R. K. Sevakula, and R. Thirukovalluru, “Pattern analysis framework with graphical indices for condition based monitoring,” *IEEE Transactions on Reliability*, vol. 66, no. 4, pp. 1085-1100, Dec. 2017. DOI: 10.1109/TR.2017.2729465 ([PDF](#))
- [45] N. K. Dhar, **Nishchal K. Verma**, L. Behera, and M M Jamshidi, “On an integrated approach to networked climate control of a smart home,” *IEEE Systems Journal*, vol. 12, no. 2, pp. 1317-1328, June 2018. DOI: 10.1109/JSYST.2016.2619366 ([PDF](#))
- [44] R. K. Sevakula and **Nishchal K. Verma**, “Assessing generalization ability of majority vote point classifiers,” *IEEE Transactions on Neural Networks and Learning Systems*, vol. 28, no. 12, pp. 2985-2997, Dec. 2017. DOI: 10.1109/TNNLS.2016.2609466 ([PDF](#))

- [43] B. P. Padhy, S. C. Srivastava, and **Nishchal K. Verma**, “A wide-area damping controller considering network input & output delays and packet drop,” *IEEE Transactions on Power Systems*, vol. 32, no. 1, pp. 166-176, Jan. 2017. DOI: 10.1109/TPWRS.2016.2547967 ([PDF](#))
- [42] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit, and A. Salour, “Intelligent condition based monitoring using acoustic signals for air compressors,” *IEEE Transactions on Reliability*, vol. 65, no. 1, pp. 291-309, March 2016. DOI: 10.1109/TR.2015.2459684 ([PDF](#))
- [41] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit, and A. Salour, “Data driven approach for drill bit monitoring,” *IEEE Reliability Magazine*, pp. 19-26, Feb. 2015. ([PDF](#))
- [40] **Nishchal K. Verma** and A. Roy, “Self-optimal clustering technique using optimized threshold function,” *IEEE Systems Journal*, vol. 8, no. 4, pp. 1213-1226, Dec. 2014. DOI: 10.1109/JSYST.2013.2261231 ([PDF](#))
- [39] B. P. Padhy, S. C. Srivastava, and **Nishchal K. Verma**, “A coherency based approach for signal selection for wide area stabilizing control in power system,” *IEEE Systems Journal*, vol. 7, no. 4, pp. 807-816, Dec. 2013. ([PDF](#))
- [38] R. K. Shakya, Y. N. Singh, and **Nishchal K. Verma**, “Generic correlation model for wireless sensor network applications,” *IET Wireless Sensor Systems*, vol. 3, no. 4, pp. 266-276, Dec. 2013. DOI: 10.1049/iet-wss.2012.0094 ([PDF](#))
- [37] R. K. Tripathi, Y. N. Singh, and **Nishchal K. Verma**, “Clustering algorithm for non-uniformly distributed nodes in a wireless sensor network,” *IET Electronics Letters*, vol. 49, no. 4, pp. 299-300, Feb. 14, 2013. DOI: 10.1049/el.2012.3512 ([PDF](#))
- [36] B. P. Padhy, S. C. Srivastava, and **Nishchal K. Verma**, “Robust wide-area fuzzy output feedback controller for enhancement of stability in multi-machine power system,” *IEEE Systems Journal*, vol. 6, no. 3, pp. 426-435, Sept. 2012. DOI: 10.1109/JSYST.2011.2165639 ([PDF](#))
- [35] R. K. Tripathi, Y. N. Singh, and **Nishchal K. Verma**, “Two-tiered wireless sensor networks - base station optimal positioning case study,” *IET Wireless Sensor Systems Journal*, vol. 2, no. 4, pp. 351-360, Dec. 2012. DOI: 10.1049/iet-wss.2011.0152 ([PDF](#))
- [34] **Nishchal K. Verma** and M. Hanmandlu, “Additive and non-additive fuzzy hidden Markov models,” *IEEE Transactions on Fuzzy Systems*, vol. 18, no. 1, pp. 40-56, Feb. 2010. DOI: 10.1109/TFUZZ.2009.2034532 ([PDF](#))
- [33] **Nishchal K. Verma**, “Doctoral thesis on Gaussian mixture model based non-additive fuzzy systems,” *IEEE Computational Intelligence Soc. Electronic Letters*, no. 37, Nov. 2007.
- [32] **Nishchal K. Verma** and M. Hanmandlu, “From Gaussian mixture model to non-additive fuzzy systems,” *IEEE Transactions on Fuzzy Systems*, vol. 15, no. 5, pp. 809-827, October 2007. DOI: 10.1109/TFUZZ.2006.889821 ([PDF](#))
- [31] T. Sharma and **Nishchal K. Verma**, “Single Image Dehazing and Non-Uniform Illumination Enhancement: A Z-Score Approach,” *SN Computer Science*, Sept. 2021. (Accepted for publication)
- [30] A. Bhola, T. Sharma, and **Nishchal K. Verma**, “DCNet: Dark Channel Network for Single Image Dehazing,” *Machine Vision and Applications (MVAP)*, Springer, vol. 32, no. 62, March 2020. DOI: 10.1007/s00138-021-01173-x ([PDF](#))

- [29] **Nishchal K. Verma**, T. Sharma, S. Dixit, P. Agrawal, S. Sengupta, and V. Singh, "BIDEAL: a toolbox for bicluster analysis - generation, visualization and validation," *SN Computer Science*, Springer, vol. 2, no. 24, Jan. 2021. DOI: 10.1007/s42979-020-00411-9 ([PDF](#))
- [28] T. Sharma, I. Agrawal, and **Nishchal K. Verma**, "CSIDNet: compact single image dehazing network for outdoor scene enhancement," *Multimedia Tools and Applications*, Springer, vol. 79, pp. 30769-30784, July 2020. DOI: <https://doi.org/10.1007/s11042-020-09496-z> ([PDF](#))
- [27] R. K. Sevakula and **Nishchal K. Verma**, "Balanced binary search tree multiclass decomposition with possible non-outliers," *Springer Nature Applied Sciences*, vol. 2, article no. 1130, May 2020. DOI: <https://doi.org/10.1007/s42452-020-2853-6> ([PDF](#))
- [26] D. J. Singh, P. Agrawal, **Nishchal K. Verma**, A. K. Ghosh, and A. Malagaudanavar, "Interval Type-2 TS fuzzy model for angle of attack sensor of the aircraft," *Journal of Intelligent and Fuzzy Systems*, vol. 34, no. 6, pp. 3891-3901, June 2018. DOI: 10.3233/JIFS-169560 ([PDF](#))
- [25] S. K. Rajurkar, V. Singh, **Nishchal K. Verma**, and Y. Cui, "Deep stacked auto-encoder with deep fuzzy network for transcriptome-based tumor type classification," *BMC Bioinformatics*, vol. 18, p. 388, 2017. (Accepted for Publication)
- [24] R. Agnihotri, A. P. Dimri, H. M. Joshi, **Nishchal K. Verma**, C. Sharma, J. Singh, and Y. P. Sundriyal, "Assessing operative natural and anthropogenic forcing factors from long-term climate time series of Uttarakhand (India) in the backdrop of recurring extreme rainfall events over northwest Himalaya," *Elsevier, Journal of Geomorphology*, vol. 284, pp. 31-40, May 2017. DOI: <https://doi.org/10.1016/j.geomorph.2016.10.024> ([PDF](#))
- [23] P. Agrawal, T. Sharma, and **Nishchal K. Verma**, "Supervised approach for object identification using speeded up robust features," *International Journal of Advanced Intelligence Paradigms*, vol. 15, no. 2, pp. 165-182, Feb. 2020. DOI: 10.1504/IJAIP.2020.105142 ([PDF](#))
- [22] R. K. Sevakula, R. Thirukovalluru and **Nishchal K. Verma**, and Y. Cui, "Deep neural networks for transcriptome-based cancer classification," *BMC Bioinformatics*, 2016. DOI: 10.1186/s12859-016-1154-y ([PDF](#))
- [21] **Nishchal K. Verma**, E. Dutta, and Y. Cui, "Assessing the quality of biclusters using fuzzy biclustering index," *International Journal of Data Mining and Bioinformatics*, vol. 15, no. 4, pp. 291-311, Aug. 2016. DOI: 10.1504/IJDMB.2016.078145 ([PDF](#))
- [20] **Nishchal K. Verma**, R. K. Sevakula, S. Dixit, and A. Salour, "Ranking of sensitive positions using statistical and correlational analysis," *International Journal on Smart Sensing and Intelligent Systems*, vol. 6, no. 4, pp.1745-1762, Sept. 2013. DOI: <https://doi.org/10.21307/ijssis-2017-613> ([PDF](#))
- [19] **Nishchal K. Verma**, R. K. Sevakula, J. K. Gupta, S. Singh, S. Dixit, and A. Salour, "Smartphone application for fault recognition," *International Journal on Smart Sensing and Intelligent Systems*, vol. 6, no. 4, pp. 1763-1782, Sept. 2013. DOI: <https://doi.org/10.21307/ijssis-2017-614> ([PDF](#))

- [18] **Nishchal K. Verma** and S. Singh, "Image sequence prediction using ANN and RBFNN with selected features," *International Journal of Image and Graphics*, vol. 13, no. 2, p. 1340006, July 2013. DOI: <https://doi.org/10.1142/S0219467813400068> ([PDF](#))
- [17] N. Kohli and **Nishchal K. Verma**, "Performance analysis of online health care system," *International Journal of Engineering, Science and Technology*, vol. 3, no. 1, pp. 191-205, 2011. eISSN: 2141-2839, print ISSN: 2141-2820 ([PDF](#))
- [16] N. Kohli and **Nishchal K. Verma**, "Arrhythmia classification using SVM with selected features," *International Journal of Engineering, Science and Technology*, vol. 3, no. 8, pp. 122-131, 2012. eISSN: 2141-2839, print ISSN: 2141-2820 ([PDF](#))
- [15] **Nishchal K. Verma**, "Estimation of fuzzy measures using covariance matrices in Gaussian mixtures," *Applied Computational Intelligence and Soft Computing Journal*, Article ID 402420, pp. 1-16, June 2012. DOI: <https://doi.org/10.1155/2012/402420> ([PDF](#))
- [14] **Nishchal K. Verma**, P. Singla, and A. Roy, "Energy harvesting by foot-propelled battery charger using shoe model", *Advanced Materials Research Journal*, vol. 488-489, pp. 1268-1273, March 2012. DOI: <https://doi.org/10.4028/www.scientific.net/AMR.488-489.1268> ([PDF](#))
- [13] B. Mehta, **Nishchal K. Verma**, and P. Sircar, "Performance analysis of alpha divergence in nonnegative matrix factorization of monaural musical sounds," *International Journal of Engineering, Science and Technology*, vol. 3, no. 6, pp. 273-282, 2011. eISSN: 2141-2839, print ISSN: 2141-2820 ([PDF](#))
- [12] **Nishchal K. Verma**, A. Roy, and Y. Cui, "Improved mountain clustering algorithm for gene expression data analysis", *Journal of Data Mining and Knowledge Discovery*, vol. 2, no. 1, pp. 30-35, Aug. 2011. ISSN: 2229-6662 & ISSN: 2229-6670 ([PDF](#))
- [11] J. Arora, **Nishchal K. Verma**, and M. M. Srivastava, "Mathematical modeling on osmotic transport across cell membranes in human corneal epithelial cells in non-dilute solution", *National Academy of Sciences*, vol. 33, no. 1, pp. 33-40, Jan. 2010. ([PDF](#))
- [10] N. Kohli and **Nishchal K. Verma**, "MySQL based selection of appropriate indexing technique in hospital system using SVM", *International Journal of Engineering, Science and Technology*, vol. 2, no. 6, pp. 119-130, 2010. eISSN: 2141-2839, print ISSN: 2141-2820 ([PDF](#))
- [9] N. Kohli and **Nishchal K. Verma**, "Performance issues of health care system using SQL server", *International Journal of Computer Science and Information Security*, vol. 8, no. 2, pp. 279-284, May 2010. ISSN 1947-5500 ([PDF](#))
- [8] **Nishchal K. Verma** and M. Hanmandlu "Adaptive non-additive generalized fuzzy systems", *Applied Soft Computing, Elsevier Journal*, vol. 10, no. 3, pp. 820-831, June 2010. DOI: <https://doi.org/10.1016/j.asoc.2009.09.012> ([PDF](#))
- [7] **Nishchal K. Verma**, P. Agrawal, and Y. Cui, "Fuzzy rule based unsupervised approach for gene saliency", *BMC Bioinformatics*, vol. 10, no. 7, pp. A2, June 2009. DOI: 10.1186/1471-2105-10-S7-A2 ([PDF](#))
- [6] **Nishchal K. Verma** and M. Hanmandlu, "ANAFS computation of H-component of Earth's magnetic field", *International Journal of Computational Intelligence and Applications*, vol. 7, no. 1, pp. 43-56, March 2008. DOI: <https://doi.org/10.1142/S1469026808002132> ([PDF](#))

[5] **Nishchal K. Verma** and M. Hanmandlu, “Data driven model using adaptive fuzzy system”, *International Journal of Automation and Control*, vol. 2, no. 4, pp. 447-458, Feb. 2009. DOI: 10.1504/IJAAC.2008.022896 ([PDF](#))

[4] **Nishchal K. Verma** and M. Hanmandlu, “Color segmentation via. improved mountain clustering technique,” *International Journal of Image and Graphics*, vol. 7, no. 2, pp. 407-426, April 2007. DOI: <https://doi.org/10.1142/S0219467807002702> ([PDF](#))

[3] **Nishchal K. Verma** and B. K. Panigrahi, “Data based adaptive computation technique”, *International Journal of Information and Communication Technology*, vol. 1, no. 1, pp. 98-111, April 2007. DOI: 10.1504/IJICT.2007.013280 ([PDF](#))

[2] **Nishchal K. Verma** and M. Hanmandlu, “Non-additive generalized fuzzy system under the framework of cluster weighted model”, *International Journal on Artificial Intelligence and Machine Learning*, vol. 6, Issue 2, pp. 27-33, June 2006. ([PDF](#))

[1] **Nishchal K. Verma** and M. Hanmandlu, “Adaptability in additive fuzzy systems via EM algorithm”, *International Journal of Artificial Intelligence and Machine Learning*, vol. 6, no. 2, pp. 34-41, June 2006. ([PDF](#))

Conferences:

[175] H. L. Maurya, P. Singh, S. C. Yogi, L. Behera, and **Nishchal K. Verma**, “Quaternion Based Twisting and Backstepping Control Design of Quadrotor,” *2022 IEEE 17th International Conference on Control & Automation (ICCA)*, Naples, Italy, June 27-30, 2022.

[174] P. Singh, L. Behera, **Nishchal K. Verma**, and H. L. Maurya, “Path Tracking of Quadrotor Using Backstepping Controller in Presence of Uncertainties and Packet Dropouts,” *2022 IEEE 17th International Conference on Control & Automation (ICCA)*, Naples, Italy, June 27-30, 2022.

[173] D. Singh and **Nishchal K. Verma**, “Design of Fuzzy Control System for Generic Aircraft/UAVs,” *2022 Second International Conference on Power, Control and Computing Technologies (ICPC2T)*, Raipur, India, March 1-3, 2022.

[172] H.L. Maurya, **Nishchal K. Verma**, L. Behera, P. Singh, and S. Yogi, “Fractional order tracking control of unmanned aerial vehicle in presence of model uncertainties and disturbances,” *International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, Lieusaint – Paris, France, July 6-8, 2021. (Accepted)

[171] P. Singh, S. Gupta, L. Behera, and **Nishchal K. Verma**, “Sum of square based event-triggered control of nano-quadrotor in presence of packet dropouts,” *2021 International Conference on Unmanned Aircraft Systems (ICUAS)*, Athens, Greece, June 15-18, 2021. (Accepted)

[170] P. Singh, S. C. Yogi, L. Behera, and **Nishchal K. Verma**, “Path tracking of non-holonomic mobile robot using event-triggered control in presence of time and state-dependent uncertainties,” *SICE International Symposium on Control Systems 2021*, March 2-4, 2021. (Accepted)

[169] Boda Pool Singh, Anamika Dubey, **Nishchal K. Verma**, and Saikat Chakrabarti, “Modeling and Simulation of Fuzzy Expert System for Mitigation of Power Fluctuation in AC-

DC Hybrid Microgrid Connected to a Distribution Network,” 21st National Power Systems Conference (NPSC 2020), IIT Gandhinagar, India, Dec. 17-19, 2020. (Accepted)

[168] Teena Sharma, Tejashwani Shah, and **Nishchal K. Verma**, “A Review on Image Dehazing Algorithms for Vision based Applications in Outdoor Environment,” 49th Annual IEEE AIPR 2020: Trusted Computing, Privacy, and Securing Multimedia, Washington, D.C., U.S.A., Oct. 13-15, 2020. (Accepted)

[167] S. K. Jha, S. Maurya, and **Nishchal K. Verma**, “Generating Feature Sets for Day-Ahead Load Demand Forecasting Using Deep Neural Network,” 20th International Conference on Intelligent Systems Applications to Power Systems, IIT Delhi, New Delhi, India, Dec. 10-14, 2019. (Accepted)

[166] S. K. Jha, C. L. Dewangan, and **Nishchal K. Verma**, “Multi-Step Load Demand Forecasting Using Neural Network,” 20th International Conference on Intelligent Systems Applications to Power Systems, IIT Delhi, New Delhi, India, Dec. 10-14, 2019. (Accepted)

[165] T. Sharma, I. Agrawal, and **Nishchal K. Verma**, “Transmission Map Estimation Function to Prevent Over-Saturation in Single Image Dehazing,” International Conference on Deep Learning, Artificial Intelligence and Robotics, (ICDLAIR) 2019, Malaviya National Institute of Technology (MNIT), Jaipur, India, Dec. 07-08, 2019. (Accepted)

[164] T. Sharma, P. Agrawal, **Nishchal K. Verma**, and J. Gupta, “Binning line segments in polar space for robust descriptor encoding in disparate image matching,” International Conference on Artificial Intelligence & Applications (ICAIA-2019), College of Engineering, Roorkee, Uttarakhand, India, Nov. 20-21, 2019. (Accepted and Presented)

[163] T. Sharma, A. Jain, **Nishchal K. Verma**, and S. Vasikarla, “Inventory management using KAZE features under different lighting conditions,” 48th IEEE Applied Imagery Pattern Recognition Workshop 2019 (AIPR 2019), Washington, D.C., USA, October 15-17, 2019. (Accepted)

[162] A. Kumar, T. Sharma, **Nishchal K. Verma**, and S. Vasikarla, “Detection and removal of salt and pepper noise by Gaussian membership function and Guided filter,” 48th IEEE Applied Imagery Pattern Recognition Workshop 2019 (AIPR 2019), Washington, D.C., USA, October 15-17, 2019. (Accepted)

[161] V. Singh, H. Vardhan, **Nishchal K Verma** and Y. Cui, “Optimal Feature Selection using Fuzzy Combination of Feature Subset for Transcriptome Data”, International Conference on Fuzzy Systems (FUZZ IEEE 2019), JW Marriot New Orleans, June 23-26, 2019. (Accepted)

[160] T. Sharma, **Nishchal K. Verma** and S. Sudhakaran, “Fuzzy based Pooling in Convolutional Neural Network for Image Classification”, International Conference on Fuzzy Systems (FUZZ IEEE 2019), JW Marriot New Orleans, June 23-26, 2019. (Accepted)

[159] T. Sharma, P. Agrawal, P. Sahoo, **Nishchal K. Verma** and S. Vasikarla, “Line Segments based Rotation Invariant Descriptor for Disparate Images” In 2018 IEEE Applied Imagery Pattern Recognition Workshop, Washington, DC, Oct. 9-11, 2018. (Accepted and Presented)

[158] A. K. Sharma, D. J. Singh and **Nishchal K. Verma**, “Data Driven Aerodynamic Modeling Using Mamdani Fuzzy Inference Systems”, 2018 International Conference on Sensing, Diagnostics, Prognostics, and Control, Xi’an, China, August 15-17, 2018. (Accepted and Presented)

- [157] **Nishchal K. Verma**, S. Dixit, R. K. Sevakula and A. Salour, “Computational Framework for Machine Fault Diagnosis with Autoencoder Variants”, 2018 International Conference on Sensing, Diagnostics, Prognostics, and Control, Xi’an, China, August 15-17, 2018. (Accepted and Presented)
- [156] A. K. Sharma, V. Singh, **Nishchal K. Verma** and J. Liu, “Condition Based Monitoring of Machine using Mamdani Fuzzy Network,” 2018 Prognostics and System Health Management Conference, PHM-Chongqing, Chongqing, China, Oct. 2018. DOI: 10.1109/PHM-Chongqing.2018.00204
- [155] Bhanu T., T. Sharma, **Nishchal K. Verma** and S. R. Sahoo, “Image Dehazing for Object Recognition using Faster RCNN,” 2018 IEEE World Congress on Computational Intelligence (WCCI 2018), July 8-13, 2018. DOI: 10.1109/IJCNN.2018.8489280
- [154] V. Singh, Harshvardhan, **Nishchal K. Verma** and Y. Cui, “Optimal Feature Selection using Fuzzy Combination of Feature Subset for Transcriptome Data,” 2018 IEEE World Congress on Computational Intelligence (WCCI 2018). (Accepted)
- [153] S. Maurya, V. Singh, S. Dixit, **Nishchal K. Verma**, A. Salour and J. Liu, “Fusion of Low-level Features with Stacked Autoencoder for Condition based Monitoring of Machines,” 2018 IEEE International Conference on Prognostics and Health Management, Seattle, WA, USA, June 11-13, 2018. ([pdf](#))
- [152] G. Saraswat, V. Singh, **Nishchal K. Verma**, A. Salour and J. Liu, “Prognosis of Diesel Engine (MBT) using Feature Extraction Techniques: A Comparative Study,” 2018 IEEE International Conference on Prognostics and Health Management, Seattle, WA, USA, June 11-13, 2018. ([pdf](#))
- [151] P. Singh, L. Behera and **Nishchal K. Verma**, “Design of Passivity Based Cyber Physical System With Markovian Losses and Delay,” IFAC World Congress, Toulouse, France, vol. 50, no. 1, pp. 1971-1976, July 9-14, 2017.
- [150] V. Singh, Z. U. Islam, **Nishchal K. Verma** and Y. Cui, “Feature Learning using Stacked Autoencoder for Shared and Multimodal Fusion of Medical Images”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 53-66, Dec. 6-8, 2017. ([pdf](#))
- [149] V. Singh, A. Swaminathan, **Nishchal K. Verma**, “Convolutional Neural Network with Stacked Autoencoder for Kernel Initialization”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 53-63, Dec. 6-8, 2017. ([pdf](#))
- [148] **Nishchal K. Verma**, V. Singh, S. K. Rajurkar and Mohd Aqib, “Fuzzy Inference Network with Mamdani Fuzzy Inference System”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 375-388, Dec. 6-8, 2017. ([pdf](#))
- [147] H. Bharadhwaj, V. Singh and **Nishchal K. Verma**, “Type - 2 Fuzzy TSK: A Type-2 Fuzzy Systems approach for Clustering based identification of a T-S Regression model”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 359-374, Dec. 6-8, 2017. ([pdf](#))

- [146] A. Raj, K. Gandhi, B. T. Nalla, and **Nishchal K. Verma**, “Object Detection and Recognition using Small labeled Datasets”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 407-419, Dec. 6-8, 2017. ([pdf](#))
- [145] A. Kamboj, N. K. Dhar, and **Nishchal K. Verma**, “Event Triggered Control for Trajectory Tracking by Robotic Manipulator”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 161-170, Dec. 6-8, 2017. ([pdf](#))
- [144] D. J. Singh, **Nishchal K. Verma**, Ajoy Kanti Ghosh, and Jitu Sanwale, “Aerodynamic Parameter Modeling Using TS Fuzzy Systems from Flight Data”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 425-437, Dec. 6-8, 2017. ([pdf](#))
- [143] T. Sharma, S. K. D. Rajurkar, Nikhil Molangur, **Nishchal K. Verma**, and A. . Salou, “Multi-faced Object Recognition in an Image for Inventory Counting”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 333-346, Dec. 6-8, 2017. ([pdf](#))
- [142] T. Sharma, P. Agrawal, and **Nishchal K. Verma**, “Detection of Dust Deposition using Convolutional Neural Network for Heritage Images”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 347-359, Dec. 6-8, 2017. ([pdf](#))
- [141] S. Maurya, V. Singh, N. K. Dhar, and **Nishchal K. Verma**, “Improved EMD Local Energy with SVM for Fault Diagnosis in Air Compressor”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 81-92, Dec. 6-8, 2017. ([pdf](#))
- [140] P. Mishra, P. Agrawal, N. K. Dhar, and **Nishchal K. Verma**, “On Adaptive control for AGV with vision sensor as an unknown nonlinear system”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 265-277, Dec. 6-8, 2017. ([pdf](#))
- [139] P. Sahoo, T. Sharma, P. Agrawal, and **Nishchal K. Verma**, “Rotation Invariant Descriptor for Disparate Images using Line Segments”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 387-405, Dec. 6-8, 2017. ([pdf](#))
- [138] H. Dua, T. Sharma, P. Agrawal, and **Nishchal K. Verma**, “An efficient algorithm for image haze removal in outdoor environment,” In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 319-331, Dec. 6-8, 2017. ([pdf](#))
- [137] Heera Maurya, Laxmidhar Behera, and **Nishchal K. Verma**, “Trajectory tracking of Quad rotor UAV using Fractional Order PID controller”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 171-186, Dec. 6-8, 2017. ([pdf](#))
- [136] G. Saraswat, S. Maurya, and **Nishchal K. Verma**, “Health Monitoring of Main Battle Tank Engine Using Mamdani Type Fuzzy Model”, In 2017 International Conference on

Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 403-414, Dec. 6-8, 2017. ([pdf](#))

[135] A. Kar, N. K. Dhar, **Nishchal K. Verma**, “Event Triggered Sliding Mode Control based Trajectory Tracking in a Cyber-Physical Space”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 199-211, Dec. 6-8, 2017. ([pdf](#))

[134] **Nishchal K. Verma**, R. Dev, S. Maurya, N. K. Dhar, and P. Agrawal, “People Counting With Overhead Camera Using Fuzzy Based Detector”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 1, pp. 589-601, Dec. 6-8, 2017. ([pdf](#))

[133] R. K Sevakula and **Nishchal K. Verma**, “Hausdorff distance based Binary Search Tree multiclass decomposition algorithm,” In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 239-249, Dec. 6-8, 2017. ([pdf](#))

[132] **Nishchal K. Verma**, A. Mustafa, N. K. Dhar and V. Sarraf “SURF-MSER based 3D Mapping using RGB-D Camera on Automated Vehicle”, In 2017 International Conference on Computational Intelligence: Theories, Applications and Future Directions (ICCI-2017), India, Springer, vol. 2, pp. 373-386, Dec. 6-8, 2017. ([pdf](#))

[131] D. J. Singh, **Nishchal K. Verma**, A. K. Ghosh, J. Sanwale, and A. Malagaudanavar, “Aerodynamic Parameter Estimation using Two-Stage Radial Basis Function Neural Network,” In 2017 IEEE International Conference on Sensing, Diagnostics, Prognostics, and Control, Shanghai, China, August 16-18, 2017.

[130] D. J. Singh, R. Dev, **Nishchal K. Verma**, A. K. Ghosh, and A. Malagaudanavar, “Estimating Angle of Attack of an ATAS Aircraft Using TS Fuzzy Model,” In 2017 IEEE International Conference on Sensing, Diagnostics, Prognostics, and Control, Shanghai, China, August 16-18, 2017.

[129] S. K. Rajurkar and **Nishchal K. Verma**, “Developing Deep Fuzzy Network with Takagi Sugeno Fuzzy Inference System”, IEEE International Conference on Fuzzy Systems, pp. 1-6, July 9-12, 2017 (FUZZ-IEEE 2017).

[128] **Nishchal K. Verma**, T. Sharma, S. Maurya, D. J. Singh and A. Salour, “Real-time monitoring of Machines using Open Platform Communication”, 2017 IEEE International Conference on Prognostics and Health Management, Marriott Courtyard, Dallas, Texas, USA, pp. 124-129, June 19-21, 2017.

[127] **Nishchal K. Verma**, R. Dev, N. K. Dhar, D. J. Singh and A. Salour, “Real-Time Remote Monitoring of an Air Compressor Using MTConnect Standard Protocol”, 2017 IEEE International Conference on Prognostics and Health Management, Marriott Courtyard, Dallas, Texas, USA, pp. 109-116, June 19-21, 2017.

[126] A. Mustafa, N. K. Dhar, P. Agarwal and **Nishchal K. Verma**, “Adaptive Backstepping Sliding Mode Control based on Nonlinear Disturbance Observer for Trajectory Tracking of Robotic Manipulator”, IEEE International Conference on Control and Robotics Engineering (ICCRE), Thailand, pp. 29-34, April 1-3, 2017.

- [125] V. K. Tripathi, L. Behera, and **Nishchal K. Verma**, “Design of sliding mode and back stepping controllers for a quadcopter,” In Systems Conference (NSC), 2015 39th National, Dec. 14, pp. 1-6, Dec 14-16, 2015.
- [124] V. K. Tripathi, L. Behera, and **Nishchal K. Verma**, “Disturbance observer based back stepping controller for a quadcopter,” In Industrial Electronics Society, IECON 2016-42nd Annual Conference of the IEEE, pp. 108-113, Oct. 23-26, 2016.
- [123] A. Raj, **Nishchal K. Verma** and K. Gandhi, “Object Detection and Recognition using Small Labelled Datasets” IEEE International Conference on Design and Management (IConDM), IIITDM Kancheepuram, Chennai, India, Dec. 16-17, 2016. (Book of Abstracts)
- [122] A. Agarwal and **Nishchal K. Verma**, “Generalization Ability of Majority Vote Point classifiers for Motor Fault Diagnosis” IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, Dec. 3-4, 2016. (In Proceedings)
- [121] S. D. Rajurkar, A. K. Kar, S. Goswami, and **Nishchal K. Verma**, “Optimal Path Estimation and Tracking for an Automated Vehicle using GA optimized Fuzzy Controller,” IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, Dec. 3-4, 2016. (In Proceedings)
- [120] A. K. Kar, N. K. Dhar, R. Chandola, S. S. F. Nawaz, and **Nishchal K. Verma**, “Trajectory Tracking by Automated Guided Vehicle using GA optimized Sliding Mode Control,” IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, pp. 71-76, Dec. 3-4, 2016.
- [119] A. K. Kar, N. K. Dhar, S. S. F. Nawaz, R. Chandola, and **Nishchal K. Verma**, “Automated Guided Vehicle Navigation with Obstacle Avoidance in Normal and Guided Environments,” IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, pp. 77-82, India, Dec. 3-4, 2016.
- [118] **Nishchal K. Verma**, N. K. Dhar, A. K. Kar, R. Dev, S. S. F. Nawaz, and A. Salour, “Internet of Things Based Framework for Trajectory Tracking Control,” IEEE World Forum on Internet of Things, Reston, VA, USA, pp. 265-270, Dec. 12-14, 2016.
- [117] **Nishchal K. Verma**, A. Mustafa, V. Sarraf and A. Salour, “SURF-MSER based 3D Mapping using RGB-D Camera on Automated Vehicle,” IEEE International conference on Design and Management (IConDM), IIITDM Kancheepuram, Chennai, India, Dec. 16-17, 2016. (Book of Abstracts)
- [116] **Nishchal K. Verma**, A. Mustafa and A. Salour, “Stereo-Vision based Object Grasping using Robotic Manipulator”, IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, Dec. 3-4, 2016. (In Proceedings)
- [115] A. Mustafa, C. Tyagi and **Nishchal K. Verma**, “Inverse Kinematics evaluation for Robotic Manipulator using Support Vector Regression and Kohonen Self Organizing Map,” IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, Dec. 3-4, 2016. (In Proceedings)
- [114] **Nishchal K. Verma**, T. Sharma, R. K. Sevakula and A. Salour, “Vision based object counting using speeded up robust features for inventory control,” IEEE International conference on Computational Science and Computational Intelligence (CSCI), Las Vegas, Nevada, USA, pp. 709-714, Dec. 15-17, 2016.

- [113] **Nishchal K. Verma**, T. Sharma, S. D. Rajurkar and A. Salour, "Object identification for inventory management using convolutional neural network," IEEE Applied Imagery Pattern Recognition Workshop (AIPR), Washington DC, USA, pp. 1-6, Oct. 18-20, 2016.
- [112] **Nishchal K. Verma**, T. Sharma, S. D. Rajurkar, R. Ranjan and A. Salour, "Vision based counting of texture-less objects using shape and color features," IEEE International Conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, Dec. 3-4, 2016. (In Proceedings)
- [111] **Nishchal K. Verma**, T. Sharma, S. D. Rajurkar, N. Molangur and A. Salour, "Multi-faced object recognition in an image for inventory counting," IEEE International conference on Design and Management (IConDM), IITDM Kancheepuram, Chennai, India, Dec. 16-17, 2016. (Book of Abstracts)
- [110] V. Singh, A. Shambhav, R. K. Sevakula and **Nishchal K. Verma**, "A New Approach for Splitting Datasets implemented using Map Reduce based Fuzzy C-Means Clustering," Fourth International conference on Business Analytics and Intelligence (ICBAI), IISc Bangalore, India, Dec. 19-21, 2016. (In Proceedings)
- [109] V. Singh, N. Baranwal, R. K. Sevakula, **Nishchal K. Verma** and Y. Cui, "Layer wise feature selection in Stacked Sparse Auto-Encoder for tumor type prediction," IEEE International conference on Bioinformatics and Biomedicine (BIBM), Shenzhen, China, pp. 1542-1548, Dec. 15-18, 2016.
- [108] V. Singh, R. K. Gupta, R. K. Sevakula and **Nishchal K. Verma**, "Comparative Analysis of Gaussian Mixture Model, Logistic Regression and Random Forest for Big Data Classification using Map Reduce," IEEE International conference on Industrial and Information Systems (ICIIS), IIT Roorkee, India, pp. 333-338, Dec. 3-4, 2016.
- [107] N. K. Dhar, **Nishchal K. Verma** and L. Behera, "Intelligent Controller Design Coupled in a Communication Framework for a Networked HVAC System", IEEE World Congress on Computational Intelligence, Vancouver, Canada (WCCI 2016), pp. 1-7, July 24-29, 2016.
- [106] N. K. Dhar, **Nishchal K. Verma** and L. Behera, "Evolutionary Algorithm tuned Fuzzy PI Controller for a Networked HVAC System", World Conference on Soft Computing, UC Berkeley, USA (WConSC 2016), May 22-25, 2016.
- [105] P. Porwal, S. Chakrabarti and **Nishchal K. Verma**, "A recursive formulation of the prony method for monitoring power system oscillations", IEEE 6th International Conference on Power Systems (ICPS), Delhi, India, pp. 1-6, March 4-6, 2016.
- [104] R. K. Tripathi, V. Singh, Y. N. Singh and **Nishchal K. Verma**, "Trade-off between energy consumption and lifetime in two tiered wireless sensor networks", IEEE International Conference on Prognostics and Health Management, Canada, USA, pp. 1-4, June 20-22, 2016,.
- [103] R. Thirukovalluru, R. K. Sevakula, S. Dixit and **Nishchal K. Verma**, "Generating Optimum Feature Sets for Fault Diagnosis using Denoising Stacked Auto-encoder," IEEE International Conference on Prognostics and Health Management, Canada USA, pp. 1-7, June 20-22, 2016,.
- [102] Sevakula, R. K., Abhi Shah, and **Nishchal K. Verma**, "Data preprocessing methods for Sparse Auto-encoder based fuzzy rule classifier," 2015 IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (WCI), pp. 1-6, Dec.14-17, 2015.

- [101] **Nishchal K. Verma**, A. Ghosh, S. Dixit, and A. Salour, "Cost-benefit and reliability analysis of prognostic health management systems using fuzzy rules", 2015 IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (WCI), pp. 1-9, Dec. 14-17, 2015.
- [100] R. K. Sevakula and **Nishchal K. Verma**, "Fuzzy Rule Reduction using Sparse Auto-Encoders," IEEE Int. Conf. on Fuzzy Systems (FUZZ-IEEE'15), Istanbul, Turkey, pp. 1-7, Aug. 2-5, 2015.
- [99] **Nishchal K. Verma**, A. Ghosh, S. Dixit and A. Salour, "Cost-Benefit and Reliability Analysis of Prognostic Health Management Systems Using Fuzzy Rules," In IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (IEEE WCI 2015), India, pp. 1-9, Dec. 14-17, 2015.
- [98] **Nishchal K. Verma**, S. K. Sahu, A. Mustafa, Ocean, N. K. Dhar and A. Salour, "Priority Based Optimal Path Routing for Automated Guided Vehicle," In IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (IEEE WCI 2015), India, pp. 1-7, Dec. 14-17, 2015.
- [97] **Nishchal K. Verma**, A. Raj, G. Kumar, A. Mustafa, N. K. Dhar, A. Siddhant, P. Nama and A. Salour, "Vision Based Obstacle Avoidance and Recognition System," In IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (IEEE WCI 2015), India, pp. 1-7, Dec. 14-17, 2015.
- [96] **Nishchal K. Verma**, A. Goyal, A. H. Vardhan, R. K. Sevakula and A. Salour, "Object Matching Using Speeded Up Robust Features," In 19th INNS Asia Pacific Symposium on Intelligent and Evolutionary Systems (IES'15), Bangkok, Thailand, pp. 415-427, 2015. ([pdf](#))
- [95] **Nishchal K. Verma**, P. Nama, G. Kumar, A. Siddhant, Ocean, A. Raj, N. K. Dhar and A. Salour, "Vision based Object Follower Automated Guided Vehicle using Compressive Tracking and Stereo-vision," In IEEE Bombay Section Symposium (IBSS), pp. 1-6, Sept. 10-11, 2015.
- [94] **Nishchal K. Verma**, R. Singh, S. Dixit and A. Salour, "Thermal Imaging based Condition Based Monitoring on Android Platform," In IEEE Bombay Section Symposium (IBSS), pp. 1-6, Sept. 10-11, 2015.
- [93] A.H. Vardhan, **Nishchal K. Verma**, R. K. Sevakula and A. Salour " Unsupervised approach for Object Matching using Speeded Up Robust Features" IEEE Applied Imagery Pattern Recognition Workshop (AIPR), Washington DC, USA, pp. 1-8, Oct. 13-15, 2015.
- [92] **Nishchal K. Verma**, D. E. Gunesh, G. S. Rao, and A. Mishra, "High Accuracy Optical Flow based future image frame predictor model," IEEE Applied Imagery Pattern Recognition Workshop (AIPR), Washington DC, USA, pp. 1-6, Oct. 13-15, 2015.
- [91] **Nishchal K. Verma** and Sreevidya, "Cost Benefit Analysis for Maintenance of Rotating Machines", IEEE International Conference on Prognostics and Health Management, Austin USA, pp. 1-7, June 22-25, 2015.
- [90] R. K. Sevakula, Mohammed Suhail and **Nishchal K. Verma**, "Fast data sampling for large scale Support Vector Machines," IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (WCI'15), Kanpur, India, pp. 1-6, Dec.14-17, 2015.

[89] **Nishchal K. Verma**, A. Goyal, A. Chaman and R. K. Sevakula, "Template matching for Inventory Management using Fuzzy Color Histogram and Spatial filters," IEEE Conference on Industrial Electronics and Applications, Auckland, New Zealand, pp. 317-322, June 15-17, 2015.

[88] **Nishchal K. Verma**, Satyam Dwivedi and R. K. Sevakula, "Expectation Maximization algorithm made fast for large scale data," IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions (WCI'15), Kanpur, India, pp. 1-7, Dec. 14-17, 2015.

[87] **Nishchal K. Verma**, "Vision Based Automated Guided Vehicle and Inventory Management", BOEING NEM Roadshow 2015 at Seattle, WA, USA, 2015.

[86] **Nishchal K. Verma**, N.K. Sunny and A. Mishra, "Generation of Future Image Frame using Autoregressive Model," IEEE Conference on Industrial Electronics and Applications, Auckland, New Zealand, pp. 171-176, June 15-17, 2015.

[85] Tripathi, R. Kr, Sateesh Krishna Dhuli, Y. N. Singh, and **Nishchal K. Verma**, "Analysis of weights for optimal positioning of base station in a Wireless Sensor Network," IEEE 2014 Twentieth National Conference on Communications (NCC), pp. 1-4, Feb. 28- March 2, 2014.

[84] A. Kaushal and **Nishchal K. Verma**, "Implementation of vehicle to grid concept using ANN and ANFIS controller", In 9th IEEE Conference on Industrial Electronics and Applications, pp. 960-965, June 9-11, 2014.

[83] **Nishchal K. Verma** and Amrita Singh, "Minimizing Intra Class Variations in Multiclass Common Spatial Patterns for Motor Imagery EEG Signals", IEEE International Conference on Industrial and Information Systems, India, pp. 1-6, Dec. 15-17, 2014.

[82] **Nishchal K. Verma**, Vishnu and Suresh K Sharma, "Motor Imagery EEG Signal Classification on DWT and Cross Correlated Signal Features", IEEE International Conference on Industrial and Information Systems, India, pp. 1-6, Dec. 15-17, 2014.

[81] **Nishchal K. Verma**, Jatin V Singh, Mehak Gupta, R. K Sevakula and S. Dixit, "Windows Mobile and Tablet App for Acoustic Signature Machine Health Monitoring", IEEE International Conference on Industrial and Information Systems, India, pp. 1-6, Dec. 15-17, 2014.

[80] **Nishchal K. Verma**, R. K Sevakula and Sakshi Goel, "Study of transforms for their comparison", International Conference on Industrial and Information Systems, India, pp. 1-6, 2014.

[79] **Nishchal K. Verma**, R. Gupta, R.K. Sevakula and A. Salour, "Signal transforms for feature extraction from vibration signal for air compressor monitoring," In IEEE Region 10 TENCON, Thailand, pp. 1-6, Oct. 22-25, 2014.

[78] **Nishchal K. Verma** and Aakansha Mishra, "Large Displacement Optical Flow Based Image Predictor Model", IEEE Applied Imagery Pattern Recognition Workshop, (AIPR), Washington DC, USA, pp. 1-7, Oct. 14-16, 2014.

[77] Adarsh, J. Ramkumar, **Nishchal K. Verma** and S. Dixit, "Detection and Classification for Faults in Drilling Process using Vibration Analysis", IEEE PHM 2014, Washington, USA, pp. 1-6, June 22-25, 2014.

- [76] R. K. Sevakula and **Nishchal K. Verma**, “Clustering based Outlier Detection in Fuzzy SVM”, The 2014 IEEE International Conference on Fuzzy Systems (WCCI 2014), Beijing, China, pp. 1172-1177, July 6-11, 2014.
- [75] **Nishchal K. Verma**, Nitin K. Singh and R. K. Sevakula, “Ranking of Sensitive Positions using Empirical Mode Decomposition and Hilbert Transform”, IEEE Conference on Industrial Electronics and Applications China, pp.1926-1931, June 9-11, 2014.
- [74] Ashish Kaushal and **Nishchal K. Verma**, “Vehicle to Grid Concept Using ANN and ANFIS Controller”, IEEE Conference on Industrial Electronics and Applications 2014, China, pp.960-965, June 9-11, 2014.
- [73] Ramakiran B, Pradip Sircar and **Nishchal K. Verma**, “Soft computing Approaches for Two Dimensional Beamforming”, 4th World Conference on Soft Computing, Berkeley, USA, pp. 25-27, May 2014,.
- [72] Prashant Prakash, **Nishchal K. Verma** and Laxmidhar Behera, “Eigenvalue Assignment via the Smith Predictor based IMC & the Matrix Lambert W function for Control of Time-delayed Process Systems”, 3rd International conference on Advances in Control and Optimization of Dynamical Systems ACODS 2014, IIT Kanpur, India, vol. 3, no. 1, pp 997-1002, March 2014.
- [71] **Nishchal K. Verma**, “Health monitoring of rotating machines and OEE”, BOEING NEM Roadshow 2014 at Seattle, WA, USA, 2014.
- [70] B. P. Padhy, Suresh. C. Srivastava and **Nishchal K. Verma**, “A network Delay Compensation Technique for Wide-Area SVC Damping Controller in Power System”, IEEE PES Transmission & Distribution Conference & Exposition 2014, Chicago, USA, pp. 1-6, April 14-17, 2014.
- [69] R. K. Sevakula and **Nishchal K. Verma**, “Clustering based Outlier Detection in Fuzzy SVM,” IEEE Int. Conf. on Fuzzy Systems (FUZZ-IEEE’14), Beijing, China, pp. 1172-1177, July 6-11, 2014.
- [68] **Nishchal K. Verma**, Ankan Bansal, and Shikha Singh, “Generation of future image frames for an image sequence,” In Intelligent Interactive Technologies and Multimedia, Springer Berlin Heidelberg, pp. 154-162, 2013.
- [67] R. K. Shakya, Satyam Agarwal, Yatindra Nath Singh, **Nishchal K. Verma** and Amitabha Roy, “DSAT-MAC: Dynamic Slot Allocation based TDMA MAC protocol for Cognitive Radio Networks,” arXiv preprint arXiv: pp. 1301-4204, Jan. 2013.
- [66] **Nishchal K. Verma**, Anirudh K. Agrawal, R. K. Sevakula, Divya Prakash, and A. Salour, “Improved signal preprocessing techniques for machine fault diagnosis,” 2013 IEEE 8th International Conference on Industrial and Information Systems, pp. 403-408, Dec. 17-20, 2013.
- [65] R. K. Sevakula and **Nishchal K. Verma**, “Fuzzy Support Vector Machine using Hausdorff Distance,” IEEE Int. Conf. on Fuzzy Systems (FUZZ-IEEE’13), Hyderabad, India, pp. 1-6, July 7-10, 2013.

- [64] Arsad Jamal and **Nishchal K. Verma**, “Automatic Fault Diagnosis System Using Acoustic Data”, IEEE Eighth International Conference on Industrial and Information Systems (ICIIS), Kandy, Sri Lanka, pp. 421-426, Dec. 17-20, 2013.
- [63] **Nishchal K. Verma** and Shikha Singh, “Generation of Future Image Frames Using Optical Flow,” 2013 IEEE Applied Imagery Pattern Recognition Workshop (AIPR), Washington DC, USA, pp. 1-7, Oct 23-25, 2013.
- [62] **Nishchal K. Verma** and Sreevidya, “Study on Multi Unit Models for Machine Maintenance”, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, India, pp. 181-184, July 2013.
- [61] Jayesh Gupta, Sumanik Singh and **Nishchal K. Verma**, “MTBA: MATLAB Toolbox for Biclustering Analysis”, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, India, pp. 94-97, July 2013.
- [60] **Nishchal K. Verma**, Sumanik Singh, Jayesh Gupta, R. Sevakula, S. Dixit and Al Salour, “Feature Level Analysis”, IEEE Workshop on Computational Intelligence: Theories, Applications and Future Directions, IIT Kanpur, India, pp. 181-184, July 2013.
- [59] **Nishchal K. Verma**, “Health monitoring of rotating machines”, BOEING NEM Roadshow 2013 at Seattle, WA, USA, 2013.
- [58] R. K Sevakula and **Nishchal K. Verma**, “Fuzzy Support Vector Machine Using Hausdorff Distance”, The 2013 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE-2013), Hyderabad, India, pp. 1-6, July 7-10, 2013.
- [57] **Nishchal K. Verma**, V. K. Gupta, M. Sharma, and R. K. Sevakula, “Intelligent condition based monitoring of rotating machines using sparse auto-encoders,” In IEEE Conference on Prognostics and Health Management (PHM), pp. 1-7, June 24-27, 2013.
- [56] **Nishchal K. Verma** and Sreevidya, “Cost Benefit Analysis for Condition Based Monitoring”, IEEE International Conference on Prognostics and Health Management, Maryland, USA, pp. 1-6, June 24-27, 2013.
- [55] **Nishchal K. Verma** and T. Subramanian, “Cost benefit analysis of intelligent condition based maintenance of rotating machinery”, In Proc., 7th IEEE Conf. Industrial Electronics and Applications, pp. 1390-1394, July 18-20, 2012.
- [54] **Nishchal K. Verma**, P. Kumar, R. K. Sevakula, S. Dixit and A. Salour, “Ranking of Sensitive Positions Based on Statistical Parameters and Cross Correlation Analysis”, 6th IEEE International Conference on Sensing Technology, Kolkata, India, pp. 815-821, Dec. 18-21, 2012.
- [53] **Nishchal K. Verma**, S. Singh, J.K. Gupta, R.K. Sevakula, S. Dixit and A. Salour, “Smartphone Application for Fault Recognition”, IEEE 6th International Conference on Sensing Technology, Kolkata, India, pp. 1-6, Dec. 18-21, 2012.
- [52] **Nishchal K. Verma**, S. Sarkar, S. Dixit, R.K. Sevakula and A. Salour, “Android App for Intelligent CBM”, 22nd IEEE Symposium on Industrial Electronics (ISIE), Taipei, Taiwan, pp. 1-6, May 28-31, 2013.

- [51] Shakya, R. K., Yatindra Nath Singh, and **Nishchal K. Verma**, "Optimizing channel access for event-driven wireless sensor networks: analysis and enhancements." arXiv preprint arXiv: , vol. 1203, no. 5874, (2012).
- [50] R. K. Sevakula and **Nishchal K. Verma**, "Wavelet Transforms for Fault Detection using SVM in Power Systems," IEEE Int. Conf. on Power Electronics, Drives and Energy Systems (PEDES 2012), Bengaluru, India, pp.1-6, Dec.16-19, 2012.
- [49]. R. K. Sevakula and **Nishchal K. Verma**, "Support Vector Machine for Large Databases as Classifier," Int. Conf. on Swarm, Evolutionary, and Memetic Computing (SEMCCO'12), Springer Berlin Heidelberg, Bhubaneswar, India, pp. 303-313, Dec. 2012,
- [48] **Nishchal K. Verma** and Shimaila, "Generation of future image frames using adaptive network based fuzzy Inference System (ANFIS) on spatiotemporal framework", 2012 IEEE Applied Imagery Pattern Recognition Workshop (AIPR), pp. 1-8, Oct. 9-11, 2012.
- [47] **Nishchal K. Verma**, "Future Image Frame Generation Using Artificial Neural Network with Selected Features", IEEE Applied Imagery Pattern Recognition Workshop (AIPR), pp. 1-8, Oct. 9-11, 2012.
- [46] **Nishchal K. Verma**, "Health monitoring of rotating machines", BOEING NEM Roadshow 2012 at Seattle, WA, USA, 2012.
- [45] **Nishchal K. Verma**, Ankan Bansal and Shikha Singh, "Generation of Future Image Frames for an Image Sequence", Intelligent Interactive Technologies and Multimedia, Springer Berlin Heidelberg, pp. 154-162, 2013.
- [44] R. K. Sevakula and **Nishchal K. Verma**, "Support vector machines for large databases as classifier", In Swarm, Evolutionary, and Memetic Computing, Springer Berlin Heidelberg, pp. 303-313, 2012.
- [43] R. K. Shakya, Y. N. Singh and **Nishchal K. Verma**, "A Correlation Model for MAC Protocols in Event-Driven Wireless Sensor Networks", accepted to appear in proc. IEEE TENCON-2012, Cebu, Philippines, issue. 3, vol. 4, pp. 266-276, Nov. 19-22, 2012.
- [42] R. K. Shakya, Y. N. Singh and **Nishchal K. Verma**, "Modeling Spatial Correlation for MAC protocols in Event-driven Wireless Sensor Networks", accepted to appear in proc. IEEE ET2ECN-2012, SVNIT, Surat, INDIA, pp. 1-6, Dec. 19-21, 2012.
- [41] R. K. Shakya, Y. N. Singh and **Nishchal K. Verma**, "A Novel Spatial Correlation Model for Wireless Sensor Network Applications", In proceedings of IEEE WOCN'2012, Indore, India, pp. 1-6, Sep. 20-22, 2012.
- [40] **Nishchal K. Verma**, Tarun Maini and Al Salour, "Acoustic Signature Based Intelligent Health Monitoring of Air Compressors with Selected Features", IEEE Proc. Ninth International Conference on Information Technology: New Generations (ITNG), pp. 839-845, 2012.
- [39] N. Kohli and **Nishchal K. Verma**, "Videoconferencing System using Open Source Technologies", Proc. International Conference on Recent Advances and Future Trends in Information Technologies, Punjabi University, Patiala, India, vol. no. 3, pp. 1-3, March 2012.
- [38] R. K. Tripathi, Y. N. Singh and **Nishchal K. Verma**, "N-LEACH, a balanced cost cluster-heads selection algorithm for Wireless Sensor Network", IEEE Proc. National Conference on Communications (NCC 2012), IIT Kharagpur, India, 3-5 Feb., 2012, pp.1-5.

- [37] **Nishchal K. Verma**, Kadambari Jagannatham, Abhijit Bahirat and Tanu Shukla, "Finding Sensitive Sensor positions under faulty condition of Reciprocating Air Compressors", Proc. International Conference on IEEE Recent Advances in Intelligent Computational Systems, Trivandrum, pp. 242-246, Sep. 22-24, 2011.
- [36] **Nishchal K. Verma**, Kadambari Jagannatham, Abhijit Bahirat, Tanu Shukla and T S S Subramaniam, "Statistical Approach for finding Sensitive Positions for Condition Based Monitoring of Reciprocating Air Compressors", Proc. IEEE Control and System Graduate Research Colloquium Incorporating 2011 IEEE International Conference on System Engineering and Technology, UiTM Shah Alam, Selangor Malaysia, pp. 10-14, June 27-28, 2012.
- [35] **Nishchal K. Verma**, A. Roy and Al Salour, "An Optimized Fault Diagnosis Method for Reciprocating Air Compressors Based on SVM", Proc. IEEE Control and System Graduate Research Colloquium Incorporating 2011 IEEE International Conference on System Engineering and Technology, UiTM Shah Alam, Selangor Malaysia, pp. 65-69, June 27-28, 2011.
- [34] P. Agrawal, **Nishchal K. Verma**, Saurabh Agrawal and S. Vasikarla, "Color Segmentation Using Improved Mountain Clustering Technique Version-2", IEEE Information technology: New generation (ITNG), 2011 Eighth International Conference, Las Vegas, Nevada USA, pp.536-542, April 11-13, 2011.
- [33] **Nishchal K. Verma**, "Health monitoring of rotating machines", BOEING NEM Roadshow 2011 at Seattle, WA, USA, 2011.
- [32] Saurabh Agrawal, **Nishchal K. Verma**, P. Tamrakar and Pradip Sircar, "Content Based Color Image Classification using SVM", IEEE Information technology: New generation (ITNG), 2011 Eighth International Conference, Las Vegas, Nevada USA, pp. 1090-1094, April 11-13, 2011.
- [31] Bhuwan Mehta, **Nishchal K. Verma** and Pradip Sircar, "Single Channel Musical Source Separation by Nonnegative Matrix Factorization using Alpha Divergence", ICCANS/EESP 2011 Conference, Maldives, no. 6, pp. 273-282.
- [30] **Nishchal K. Verma**, Shruti Bajpai, Amarjot Singh, Aditya Nagrare, Sheela Meena and Y. Cui, "A Comparison of Biclustering Algorithms", In International conference on Systems in Medicine and Biology (ICSMB 2010) in IIT Kharagpur India, pp. 90-97, Dec. 16-18, 2010.
- [29] Bibhu Prasad Padhy, S. C. Srivastava and **Nishchal K. Verma**, "A Wide-Area Continuous Time model Predictive Control, Scheme for Multi-Machine Power System", 16th NATIONAL POWER SYSTEMS CONFERENCE, in Osmania University, Hyderabad, A.P, INDIA, pp. 272-277, Dec.15-17, 2010.
- [28] N. Kohli and **Nishchal K. Verma**, "SVM based methods optimized by feature selection for arrhythmia classification in ECG," Proceedings of the International Conference on Biomedical Engineering and Assistive Technologies, Punjab, Dec. 2010.
- [27] Ashutosh Dwivedi, **Nishchal K. Verma**, Prem K. Kalra, "A Novel Scheme for Face Detection Using Entropy Initialized Counter Propagation Network", Tencon 2010, Hiroshi INABA, Waseda University, Nov.23, 2010.

- [26] **Nishchal K. Verma** and Nikhil R. Pal, "Prediction of satellite images using fuzzy rule based Gaussian regression", 2010 IEEE Applied Imagery Pattern Recognition International Conference Washington DC, USA, pp.1-8, Oct. 13-15, 2010.
- [25] Nagendra K Singh, **Nishchal K. Verma** and Yatindra Nath Singh, "Learning through ICT-A good approach via open Source-Brihaspati", 4th IEEE International Conference on advance Computing and Communication Technologies, ICACCT-2010, Panipat, India, Oct. 2010.
- [24] N. Kohli, **Nishchal K. Verma** and A. Roy, "SVM based arrhythmia classification in ECG", 2010 IEEE International Conference on Education and Information Technology, Chongqing, China, pp. 486-490, Sept. 2010.
- [23] N. Kohli, **Nishchal K. Verma** and A. Roy, "SVM based Methods for arrhythmia classification in ECG," 2010 IEEE International Conference on Computer and Communication Technology (ICCCT-2010), MNIT, Allahabad, India, pp.486-490, Sept.17-19, 2010.
- [22] **Nishchal K. Verma**, P. Tamrakar and Saurabh Agrawal, "On generating future satellite-image frame using artificial neural network", International Conference on Image and Video Processing and Computer vision (IVPCV-2010), Orlando, Florida, USA, pp.158-164, July 12-14, 2010,
- [21] **Nishchal K. Verma** and P. K. Kalra, "Condition Based Monitoring of Rotating Machines", BOEING NEM Roadshow 2010 at Seattle, WA, USA, 2010.
- [20] R. K. Tripathi, R. Shakya, **Nishchal K. Verma** and Y. N. Singh, "Localized Detection of Bottleneck Nodes and Quantification of Criticality in a Wireless Sensor Networks", 2010 IEEE Region 8 International Conference on Computational Technologies in Electrical and Electronics Engineering, SIBIRCON 2010, Irkutsk Listvyanka, Russia, pp. 326-328, July 11-15, 2010.
- [19] N. Kohli and **Nishchal K. Verma**, "Performance Issues of Health Care System Using MySQL", 3rd IEEE International Conference on Computer Science and Information Technology, Chengdu, China, pp. 497-5019, July 11, 2010.
- [18] **Nishchal K. Verma**, A. Roy and S. Vasikarla, "Medical Image Segmentation Using Improved Mountain Clustering technique version-2", 2010 7th IEEE Intl. Conference on Information Technology (Data mining) (ITNG 2010), Las Vegas, USA, pp. 156-161, Apr. 2010.
- [17] N. Kohli and **Nishchal K. Verma**, "Performance Issues of Health Care System with Audio and Video Facilities", 3rd International Conference on Data management 2010, IMT, Ghaziabad, India, hospital. 1, no. 2, pp. 3, Mar. 2010.
- [16] **Nishchal K. Verma** and A. Roy, "Color Segmentation Using Improved Mountain Clustering Technique Version-2", Second IEEE International Conference on Intelligent Human Computer Interaction (IHCI-2010), IIIT Allahabad, India, pp. 536-542, Jan. 16-18, 2010.
- [15] N. Kohli and **Nishchal K. Verma**, "Performance Issues of Smart Card based online Health Care Automation System", International Conference on Signals, Systems and Automation 2009 (ICSSA 09), Gujarat, India, Dec. 2009.

- [14] J. K. Arora and **Nishchal K. Verma**, “System of Osmotic Transport Across Cell Membranes in Human Corneal Epithelial Cells in Non Dilute Solution”, Joint International Conference on Applied Systems Research and XXXIII National Systems Conference DEI Dayalbagh Agra, India, 33, no. 1-2, pp. 33-40, Nov. 2009.
- [13] **Nishchal K. Verma**, A. Roy, S. Gupta and Y. Cui, “Improved Mountain Clustering Technique for Microarray Data”, Joint International Conference on Applied Systems Research and XXXIII National Systems Conference, DEI Dayalbagh Agra, India, Nov. 2009.
- [12] **Nishchal K. Verma**, P. Gupta, P. Agrawal and Y. Cui, “MRI Brain Image Segmentation for Spotting Tumors Using Improved Mountain Clustering Approach”, In 2009 IEEE Applied Imagery Pattern Recognition International Conference Washington DC, USA, pp. 1-8, Oct., 14-16, 2009.
- [11] **Nishchal K. Verma**, P. Gupta, P. Agrawal and Y. Cui, “Fuzzy Rule Based Unsupervised Approach for Salient Gene Extraction”, In 2009 IEEE Applied Imagery Pattern Recognition International Conference Washington DC, USA, pp.1-5, Oct. 14-16, 2009.
- [10] **Nishchal K. Verma**, P. Gupta, P. Agrawal, M. Hanmandlu, S. Vasikarla and Y. Cui, “Medical Image Segmentation Using Improved Mountain Clustering Approach”, In the 6th IEEE International Conference on Information Technology - New Generation, ITNG, Las Vegas, pp. 1307-1312, April 27-29, 2009.
- [9] **Nishchal K. Verma** and P. K. Kalra, “Health monitoring of rotating machines”, BOEING NEM Roadshow 2009 at Seattle, WA, USA, 2009.
- [8] **Nishchal K. Verma** and Y. Cui, “Fuzzy rule based unsupervised approach for salient gene extraction”, IEEE International conference of innovative technologies (ICIT), Bahadurgarh, India, vol. 10, no. S7, 2009.
- [7] **Nishchal K. Verma** and M. Hanmandlu, “Adaptability in Additive Fuzzy Systems via EM Algorithm”, In Proceedings of International Conference on AIML-06, Sharm Elsheikh, Egypt, no. 6, pp. 35-42, June 13-15, 2006.
- [6] **Nishchal K. Verma** and M. Hanmandlu, “Non-additive Generalized Fuzzy System Under the Framework of Cluster weighted Model”, In Proceedings of International Conference on AIML-06, Sharm Elsheikh, Egypt, 15, no. 5, pp. 809-827, June 13-15, 2006.
- [5] **Nishchal K. Verma** and M. Hanmandlu, “Fuzzy Modeling of Earth’s Magnetic Field”, IEEE International Magnetics Conference, Intermag 2006, San Diego, USA, pp 339-339, May 8-12, 2006.
- [4] A. Chowdhari, M. Hanmandlu and **Nishchal K. Verma**, R. D. Choudhari, “Mesh Based Clustering Without Stopping Criterion”, In Proceedings of IEEE INDICON 2005 Conference, Chennai, India, pp.530-534, Dec. 11-13, 2005.
- [3] **Nishchal K. Verma** and M. Hanmandlu, “Interactive Fuzzy System Using CWM”, 2005 Annual IEEE India Conference - Indicon, Chennai, India, pp. 375-378, Dec. 11-13, 2005.
- [2] **Nishchal K. Verma**, M. Hanmandlu and N. Ahmad, “Cluster-Weighted Modeling for an Interactive Fuzzy System”, In Proceedings of CERA 2005, An International Conference, vol.2, IIT Roorkee, India, Sept. 29-Oct. 1, 2005.

[1] M. Hanmandlu, **Nishchal K. Verma**, N. Ahmad and S. Vasikarla, "Cluster Weighted Modeling as a basis for Non-additive GFM", The 2005 IEEE International Conference on Fuzzy Systems, Reno, USA, pp. 252-257, May 22-25.

Patent

1. **Nishchal K. Verma**, R. K. Sevakula, and R. Thirukovalluru, "Condition monitoring setup for long term reliability in fault recognition," no. 201611029228, dated-March 2nd, 2018.