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Journal Publications

- 1. Kavitha Srinivasan, Mohanavalli Subramaniam and Bharathi Bhagavathsingh, "Optimized bilevel classifier for brain tumor type and grade discrimination using evolutionary fuzzy computing", in Turkish Journal of Electrical Engineering & Computer Sciences, (2019) 27: 1704 1718, DOI:10.3906/elk-1804-13. IF:0.697
- 2. Poornima S,Kavitha S, Sheerin Sitara N and Balaprasanna A S, "*Hybrid Fusion based Learning Model for Biometric Authentication*", Caribbean Journal of Science, Volume 53, ISSUE 1 (JAN APR), 2019, pp. 606-613, ISSN: 0008-6452
- 3. S.Kavitha and K.K.Thyagharajan, "Fuzzy Qualitative Reasoning Model for Astrocytoma Brain Tumor Grade Diagnosis", Indian Journal of Science and Technology, Vol 11(38), DOI: 10.17485/ijst/2018/v11i38/107253, October 2018, pp:1-13
- 4. Sheerin Sitara N, Kavitha. S. and Raghuraman. G, "Review and Analysis of Crack Detection and Classification techniques based on Crack Types", International Journal of Applied Engineering Research (IJAER), ISSN 0973-4562, Vol. 13(8), May 2018, pp. 6056-6062.
- 5. S. Kavitha, B. Bharathi, P. Sasikala, P. Chandralekha, V. Ashwini, "Modified dual channel PCNN algorithm with hybrid edge enhancement approach for multimodality brain image fusion", International Journal of Biomedical Engineering and Technology (IJBET), Vol 28(2), 2018, pp:120-146, DOI:10.1504/IJBET.2017.10006801
- 6. Kavitha S and Thyagharajan K.K., "Efficient DWT-based fusion techniques using genetic algorithm for optimal parameter estimation", Springer-Soft Computing Journal, 21(12), 2017, pp: 3307-3316. DOI 10.1007/s00500-015-2009-6,IF: 2.472
- 7. S.Kavitha, B.Bharathi, K.MohanaPriya, S.MohanaPriya and V.C. NithusSushmy, "Optimal feature set selection for brain tumor classification using Genetic Algorithm with Support Vector Machine and Decision Tree", Asian Journal of Research in Social Sciences and Humanities, 6(9), September 2016, pp: 660-670.
- 8. S. Kavitha, Vijay V, Saketh A B., "Matrix Sort A Parallelizable Sorting Algorithm", International Journal of Computer Applications, Vol. 143, No.9, June 2016.
- 9. Kavitha S and Thyagharajan K.K., "A survey on quantitative metrics for assessing the quality of fused medical images", Research Journal of Applied Sciences, Engineering and Technology, 12(3), pp: 282-293, Feb 2016, IF 0.654, ISSN: 2040-7459, SJR 0.16, DOI:

http://dx.doi.org/10.19026/rjaset.12.2335

- 10. Kavitha S and Thyagharajan K. K., "Survey on wavelet based image fusion techniques", International Journal on Recent and Innovation Trends in Computing and Communication, 4(5), pp: 466-473, ISSN: 2321-8169, May 2016
- 11. B. Bharathi, S. Kavitha and N. Mariappan, "Real time speech based integrated development environment for C program", Circuits and Systems,7, pp. 69-82, ISSN Print: 2153-1285, E-ISSN: 2153-1293, March 2016,

DOI: http://dx.doi.org/10.4236/cs.2016.73008

- 12. Kavitha S and Thyagharajan K. K., "A classification system for fused Brain Images using Support Vector Machine", International Journal of Applied Engineering Research, vol. 10, no. 8, April 2015. pp: 6289-6293. ISSN 0973-4562, IF 0.12, SJR 0.13
- 13. Anusha R and Kavitha S, "Comparative analysis of DWT based image fusion techniques using a new quality fusion metric", International Journal of Applied Engineering Research, vol.10, no. 34, May 2015. pp: 27276 27283. ISSN 0973-4562, IF 0.12, SJR 0.13

Conference Publications

- Akshara S., Hemapriyalakshmi R., Keerthana S., Bharathi B., Kavitha S. (2020) "Acoustic Scene Classification Using Convolutional Neural Network". In: Reddy V., Prasad V., Wang J., Reddy K. (eds) Soft Computing and Signal Processing. ICSCSP 2019. Advances in Intelligent Systems and Computing, Vol. 1118. Springer, Singapore, March 2020.
- 2. Sharmadha S., Shivani K., Shruthi K., Bharathi B., Kavitha S. (2020), "Automatic Speech Recognition Using Deep Neural Network". In: Reddy V., Prasad V., Wang J., Reddy K. (eds) Soft Computing and Signal Processing. ICSCSP 2019. Advances in Intelligent Systems and Computing, Vol. 1118. Springer, Singapore, March 2020.
- 3. Noor Mohamed S.S., Srinivasan K. (2020), "Comparative Analysis of Deep Neural Networks for Crack Image Classification", In: Hemanth D., Shakya S., Baig Z. (eds) Intelligent Data Communication Technologies and Internet of Things. ICICI 2019. Lecture Notes on Data Engineering and Communications Technologies, Vol 38. Springer, Cham, November 2019. https://doi.org/10.1007/978-3-030-34080-3_49
- 4. N. Mangayarkarasi, G. Raghuraman and S. Kavitha, "Influence of Computer Vision and IoT for Pipeline Inspection-A Review," 2019 International Conference on Computational Intelligence in Data Science (ICCIDS), Chennai, India, 2019, pp. 1-6, doi: 10.1109/ICCIDS.2019.8862109
- R. N. Kirtana, S. Kavitha, B. Bharathi, S. K. Priya, B. Keerthana and K. Kripa, "Smart Irrigation System using Zigbee Technology and Machine Learning Techniques," 2018 International Conference on Intelligent Computing and Communication for Smart World (I2C2SW), Erode, India, 2018, pp. 78-82, DOI: 10.1109/I2C2SW45816.2018.8997121, Date Added to IEEE Xplore: 13 February 2020.
- 6. S. Kavitha,S. Mohanavalli,B. Bharathi, "Predicting Learning Behaviour of Online Course Learners' using Hybrid Deep Learning Model", IEEE 6th International Conference on MOOCs, Technology and Innovation in Education, MITE 2018 at MLR Institute of Technology, Hyderabad, 29-30 November 2018, pp.98-102.

DOI: <u>10.1109/MITE.2018.8747136</u>, **ISBN:** 978-1-5386-5968-7

7. Kavitha S, Nandhinee P R, Harshana S, Jahnavi Srividya S and Harrinei K, "ImageCLEF 2019: A 2D Convolutional Neural Network Approach for Severity Scoring of Lung Tuberculosis using CT Images", CLEF 2019, pp: 1-10, Online version: http://ceur-ws.org/Vol-2380/.

- S. Poornima, S. Kavitha, S. Mohanavalli, and N. Sripriya, "Detection and classification of diseases in plants using image processing and machine learning techniques", AIP Conference Proceedings 2095, 030018 (2019); https://doi.org/10.1063/1.5097529 Published Online: 09 April 2019
- J. Mary Hanna Priyadharshini, S. Kavitha, and B. Bharathi, "Comparative analysis of multilayer backpropagation and multi-channel deep convolutional neural network for human activity recognition", AIP Conference Proceedings 2095, 030014 (2019); https://doi.org/10.1063/1.5097525 Published Online: 09 April 2019
- Bharathi B, Kavitha S and Suga Priya S, "Bilingual speech recognitionsystem for isolated words using deep neural network", International Conference on Computer, Communication, and Signal Processing (ICCCSP - 2018), SSN College of Engineering, Feb 22-23, 2018, Published in IEEE Xplore (Scopus)
- Saranya S, Bharathi B and Kavitha S, "An approach to detect replay attack in automatic speaker verification system", International Conference on Computer, Communication, and Signal Processing (ICCCSP - 2018), SSN College of Engineering, Feb 22-23, 2018, Published in IEEE Xplore (Scopus)
- 12. Kavitha S., Bharathi B., Pravish S., Purushothaman S.S., "Brain Visual State Classification of fMRI Data Using Fuzzy Support Vector Machine", International conference on 2nd International Conference on Advanced Computing and Intelligent Engineering 23-25 November, 2017, Central University of Rajasthan, Ajmer, India, Published In: Panigrahi C., Pujari A., Misra S., Pati B., Li KC. (eds) Progress in Advanced Computing and Intelligent Engineering. Advances in Intelligent Systems and Computing, vol 714. Springer, Singapore, First Online: 10 July 2018, https://doi.org/10.1007/978-981-13-0224-4 15 (Scopus)
- 13. Bharathi B, Kavitha S, Shashaank D S, Priyanka S and Sriram V, "Speech Recognition based Chess System for Visually Challanged", International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017), SKR Engineering College, Poonamallee, August 1-2,2017, Published in IEEE Xplore, (Scopus)
- 14. J Mary Hanna Priyadharshini, S Kavitha and B,Bharathi, "Classification and Analysis of Human Activities", IEEE International Conference on Communication and Signal Processing (ICCSP 2017), April 6-8, 2017, Published in IEEE *Xplore*(Scopus)
- 15. Kavitha S, Mohana Priya K and Bharathi B, "Brain tumor types and grades classification based on statistical feature set using support vector machine", 10th IEEE International Conference on Intelligent Systems and Control (ISCO 2016), pp: 412-419, January 7-8, 2016. Published in **IEEE** *Xplore*(Scopus)
- 16. Kavitha S, Mohana Priya K and Bharathi B, "Speaker verification in a noisy environment by enhancing the speech signal using various approaches of spectral subtraction", 10th IEEE International Conference on Intelligent Systems and Control (ISCO 2016), pp: 412-419, January 7-8, 2016, Published in **IEEE** *Xplore*(Scopus)
- 17. B Bharathi, A Mohamed Asique, V Aravind Krishna and S Kavitha., "Speaker age estimation from speech utterance using I-vector and Gaussian mixture model", Seventh international conference on Advanced Computing (ICOAC 2015), December 15-17, 2015