Publication List

Dr. G. Kavitha
Professor
Department of Electronics Engineering
MIT Chennai
Email-kavitha_mit@annauni.edu

INTERNATIONAL JOURNALS:

1.Latha M, and**Kavitha G.** (2019) Assessment of severity in neuropsychiatric disorders based on radiomic features with prior shape level set and metaheuristic algorithms. **Int J Imaging Syst Technol.** 2019; 1–12, https://doi.org/10.1002/ima.22306.

2.Latha M, and **Kavitha G** (2018) 'Hermite transform and support vector machine based analysis of schizophrenia disorder in magnetic resonance brain images' **International Journal of Biomedical Engineering and Technology, Inderscience,** Vol.27, No.3, 2018, pp. 203-220.

3.J.Thamil Selvi , **Ganesan Kavitha** and C.Manoharan Sujatha **(2018)** 'An approach to extract edge maps in infrared based breast images using Perona- MALIK diffusion filter', **International Journal of Biomedical Engineering and Technology, Inderscience,** Vol. 28, No. 3, 2018, pp. 261 - 272.

4.Latha. M and **Kavitha. G** (2018) 'Detection of Schizophrenia in brain MR images based on segmented ventricle region and Deep Belief Networks', **Neural Computing and Applications, Springer,** https://doi.org/10.1007/s00521-018-3360-1, Impact factor : 2.505

5.Manohar Latha and **Ganesan Kavitha**, (2017) "Segmentation and texture analysis of structural biomarkers using neighborhood- clustering- based level set in MRI of the schizophrenic brain" **Magnetic Resonance Materials in Physics, Biology and Medicine**, Vol. 30, no:2, 2017, Springer.

6.Latha. M and **Kavitha. G** (2017) 'Diagnosis of Schizophrenia disorder in MR brain images using multi-objective BPSO based feature selection with fuzzy SVM', **Journal of Medical and Biological Engineering, Springer** https://doi.org/10.1007/s40846-017-0355-9.

7.Kayalvizhi, M, Kavitha, G, Sujatha, C M & Ramakrishnan, S (2015), 'Formulation of Minkowski based ratio metric index in Alzheimer's MR brain images using localized region based Level set', **Neurodegenerative Diseases**, vol. 15, suppl 1, pp. 861, doi:10.1159 /000381736.

8.M. Kayalvizhi, **G.Kavitha**, C.M.Sujatha and S.Ramakrishnan (2015) 'Minkowski functionals based brain to ventricle index for analysis of AD progression in MR images' **Measurement, Elsevier**, pp.103-112.

9.Jac Fredo A.R, **Kavitha. G** and Ramakrishnan. S (2015) "Automated segmentation and analysis of corpus callosum in autistic MR images using fuzzy c-means based level set", **Journal of Medical and Biological Engineering, Springer,** doi:10.1007/s40846-015-0047-2.

10.Kayalvizhi, M, K.R.Anandh, **Kavitha, G,** Sujatha, C M & Ramakrishnan, S (2015), 'Analysis of anatomical regions in Alzheimer's brain MR images using level sets and Minkowski functional,' **Journal of Mechanics in Medicine and Biology**, **World Scientific publishers,** vol. 15, no.2, pp. 1540024(1-7).

11.Jac Fredo A.R, **Kavitha. G** and Ramakrishnan. S (2015), 'Segmentation and analysis of corpus callosum in autistic MR brain images using reaction diffusion level sets', **Journal of Medical Imaging and Health Informatics, American Scientific Publishers,** Vol. 5, No.4, pp. 737-74.

12.S.Rajeswari, **G. Kavitha** and M. Latha (2015), 'Severity detection in glaucoma affected retinal images using adaptive level set segmentation' **International Journal of Applied Engineering Research**, Research India Publications, ISSN 0973-4562,Vol.10, No.5, pp.4830-4833.

13.Kayalvizhi M, **Kavitha G**, Sujatha CM, Ramakrishnan S (2015), 'Study of Alzheimer's Disease Progression in MR Brain Images based on Segmentation and Analysis of Ventricles using Modified DRLSE Method and Minkowski Functionals', **Biomedical Sciences Instrumentation, Instrument Society of America**; 51:332-40.

14.J. Sivagamasundari, **G.Kavitha**, V.Natarajan, and S.Ramakrishnan (2015), 'An approach to content based retinal image retrieval using Papamarkos multilevel thresholding method' **Journal of Medical Imaging and Health Informatics, American Scientific Publishers,** Volume 5, Number 3, June 2015, pp. 527-536(6)

NATIONAL JOURNALS

1. Malarkodi A, Latha G, Manamalli D and **Kavitha G** "Analysis of acoustic back scattered signalsof two different under water materials using Empirical mode decomposition and support vector machine", **Indian Journal of Geo marine sciences (IJMS),** Vol. 44(5), May 2015, pp.656-664, Impact factor: 0.316

INTERNATIONAL CONFERENCES

1. M. Muthulakshmi, and **G. Kavitha** "Deep CNN with LM learning based myocardial ischemia detection in cardiac magnetic resonance images" 41 st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), 23-27 July 2019, Berlin, Germany, pp: 824 - 827

2.N. Ahana priyanka and **G. Kavitha,** "Study of Tissue Variation and Analysis of MR Brain Images using Optimized Multilevel Threshold and Deep CNN Features in Neurodegenerative Disorders" 41 st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), 23-27 July 2019, Berlin, Germany, pp: 2773 - 2776

3. **N. Ahana priyanka, G. Kavitha,** "Diagnosis of Neurodegenerative Disorders in Brain MRI Using Tissue Variation and SVM Classifier", **Alliance International Conference on Artificial Intelligence and Machine Learning (AICAAM'19), Alliance University, Bangalore,** 26th & 27th April 2019, pp. 272-283.

4. N.Ahana Priyanka and **G.Kavitha**,"Detection Of Dementia From Brain Tissues Variation In MR Images Using Minimum Cross Entropy Based Crow Search Algorithm And Structure Tensor Features", **International conference on soft computing for problem solving**, VIT Vellore, Dec-17-19, 2018.

5. J.Thamil Selvi, **G.Kavitha** and C.M.Sujatha, " Non linear Non- local diffusion model based edge map extraction of infrared breast images" **4th International conference on computational methods in Engineering and Health sciences**, December 19-20, 2017, pp.25.

6. N.Ahana Priyanka and **G.Kavitha** "Analysis and Estimation of Brain tissue atrophy using Magnetic resonance images" **Ninth International conference on Advanced Computing (ICoAC 2017),** 14-16 December 2017, Department of Computer Technology, Anna University, Chennai, pp.485 -491.

7. Muthulakshmi, M and **Kavitha, G** "Local region with Optimized Boundary driven level set based segmentation of Myocardial ischemic cardiac MR images", **International Conference on Advanced Computational and Communication Paradigms** (ICACCP-2017), 08 – 10 September, 2017, Sikkim Manipal Institute of Technology, Sikkim, pp. 2-3, 2017. (Springer Advances Intelligent Systems and Computing)

8. Latha, M, Muthulakshmi, M and **Kavitha, G** 'Detection of Schizophrenia disorder from ventricle region in MR brain images via Hu moment invariants using random forest', **International conference on Advanced Computational and Communication Paradigms,** 08 – 10 September, 2017, Sikkim Manipal University, Sikkim, India. (Springer Lecture Notes in Electrical Engineering)

9. M.Latha and **G.Kavitha** (2017), "Diagnosis of schizophrenia disorder using Wasserstein based active contour and texture features" **International conference on NextGen Electronic Technologies: Silicon to Software**" VIT University, Chennai , March 23-25, 2017, pp. 17 (Springer 2nd Best paper award), (Springer Lecture Notes in Electrical Engineering)

10. M.Muthulakshmi and **G.Kavitha** (2017), 'Analysis of Myocardial Ischemia form Cardiac Magnetic Resonance images using adaptive fuzzy based multiphase level set', **International conference on NextGen Electronic Technologies: Silicon to Software**" VIT University, Chennai , March 23-25, 2017, pp. 15, (Springer Lecture Notes in Electrical Engineering).

11.M.Latha and **G.Kavitha** (2017), 'Segmentation and analysis of ventricles in schizophrenic MR brain images using optimal region based energy minimization framework', **4th International conference on Signal Processing, Communications and networking, ICSCN 2017**, MIT Campus, Chennai, India, March 16-18, 2017, ISBN No: 978-1-5090-4740-6.

12. K.B.Sathya, V.Vaidehi and G.Kavitha (2017) , 'Vehicle license plate recognition' **9th International conference on Trends in industrial measurements and Automation** , Department of Instrumentation Engineering, MIT Campus, Anna University, Chennai-44, 6th - 8th January 2017, pp.24 (indexed in IEEE).

13. J.Thamil Selvi, **G.Kavitha** and C.M.Sujatha (2016), 'Analysis of breast images using bilateral filter and distance regularized level set', **2nd International conference on Biomedical systems, signals and images, IIT Madras,** Chennai, 24th -26th, February 2016, pp.28.

14. M.Latha and **G.Kavitha** (2016), 'Hermite transform based analysis of Schizophernia disorder in Magnetic Resonance brain images, **2nd International conference on Biomedical systems, signals and images, IIT Madras,** Chennai, 24th -26th, February 2016, pp.16.

15. J.Thamil Selvi, **G.Kavitha** and C.M.Sujatha (2016) , 'Analysis of breast thermograms using BLS-GSM technique and total variation diffusion filter based level set' **Biomedical Sciences Instrumentation, Instrument Society of America.**

16. P.Arjun, M.K.Monisha, A.Mullaiyarasi and **G.Kavitha** (2015), 'Analysis of the liver in CT images using an improved region growing technique' **IEEE International conference on industrial instrumentation and control**, Department of Instrumentation and control, College of Engineering, Pune, 28th -30th May 2015.

17. P.M.Rajeswari, Dhilsha Rajapan, **G.Kavitha** and C.M.Sujatha (2015), 'Multilevel Tsallis entropy based segmentation for detection of object and shadow in SONAR images' IEEE International Conference on "**Signal Processing, Informatics, Communication and Energy Systems** (SPICES), NIT Calicut, 19th-21st February, Abstract in Proceedings, pp.97.

18. P.M.Rajeswari, **G.Kavitha,** C.M.Sujatha and Dhilsha Rajapan, (2015), 'Swarm intelligence based segmentation for Buried object scanning SONAR images' **International Symposium on Under water technology**, 23rd-25th February 2015, pp.52.

NATIONAL CONFERENCES

1.M. Muthulakshmi, N. Ahana priyanka and **G. Kavitha** (2019) "Detection of degree of abnormality in cardiac magnetic resonance images with segmented left ventricle and deep convolutional neural network", **11th National Conference on Signal processing, Communication & VLSI design (NCSCV'19),** Anna University, Regional Campus, Coimbatore, 4th & 5th April 2019, pp. 115-119. ISBN: 978-93-87862-64-7.

2.N. Ahana priyanka and **G. Kavitha** (2019) "Study of symmetry variation and severity detection in MR brain images using crow search optimization based threshold and DSIFT detectors", **11th National Conference on Signal processing, Communication & VLSI design (NCSCV'19),** Anna University, Regional Campus, Coimbatore, 4th & 5th April 2019, pp. 250-254. ISBN: 978-93-87862-64-7.

3.M.Latha and **G.Kavitha** (2016) , ' Study of Schizophrenia disorders in MR brain images using histogram based active contour and Zernike moments' Proceedings of the **8th National conference on signal Processing, Communication and VLSI design** (NCSCV'16), 29th - 30th April 2016, pp.360-365**,(best paper award).**

4.V.Arthy and **G.Kavitha** (2016) , 'Assessment of breast mammograms using nulti-scale local region based level set and support vector machine' Proceedings of the **8th National conference on signal Processing, Communication and VLSI design** (NCSCV'16), 29th - 30th April 2016, pp.13-17**, (best paper award).**

5. J.Thamilselvi, S.Prabha, **G.Kavitha** and C.M.Sujatha (2015), 'Analysis of breast thermograms using Gaussian bilateral filter and statistical texture features' **National Symposium on Instrumentation (NSI -40),** October 30th -31st 2015.

6.M. Latha and **G. Kavitha** (2015), 'Denoising in MR brain images using a combination of Non-Local means and wavelet shrinkage techniques', **National Symposium on Instrumentation** (NSI-40), Instrument Society of India, Department of Instrumentation, Indian Institute of Science, pp. 127-128, 2015.

7.S.Rajeswari and **G.Kavitha** (2015), 'An intensity –Texture based level set method for segmentation and analysis of optic disc in retinal mages' Proceedings of the **7th National conference on signal Processing, Communication and VLSI design** (NCSCV'15), 24th-25th April 2015,pp.606-611, **(best paper award).**