

## Publication Details

### International Journals

1. Vidhusha Srinivasan, Udayakumar N, Hualou Liang, **Kavitha Anandan**, "A hybrid approach for analysis of brain lateralization in autistic children using graph theory techniques and deep belief networks", International Journal of Biomedical Engineering and Technology (IJBET), (Under Print).
2. C. Sandhya, Anandha Sree R, and **Kavitha A.**, (2020), "Identification of vowels in consonant–vowel–consonant words from speech imagery based EEG signals." Cognitive Neurodynamics, 14(1), 1-19.
3. Vidhusha Srinivasan\*, Udayakumar N and **Kavitha Anandan**, "Influence of Primary Auditory Cortex in the Characterization of Autism Spectrum in Young Adults using Brain Connectivity Parameters and Deep Belief Networks: An fMRI Study", Current Medical Imaging (2019) 15: 1.
4. Sandhya, C., & **Kavitha, A.** (2019). Analysis of speech imagery using brain connectivity estimators on consonant-vowel-consonant words. International Journal of Biomedical Engineering and Technology, 30(4), 329-343.
5. C. Sandhya, Divya B., **Kavitha A.**, and Christy Bobby T., (2018), "Effect of Power and Phase Synchronization in Multi-Trial Speech Imagery." International Journal of Software Science and Computational Intelligence (IJSSCI), 10(4), 44-61.
6. **Kavitha, A.** (2018). Investigations on the Brain Connectivity Parameters for Co-Morbidities of Autism Using EEG. International Journal of Software Science and Computational Intelligence (IJSSCI), 10(2), 50-65.
7. Kapardi, M., & **Anandan, K.** (2018). Functional Connectivity Assessment for Episodic Memory by Decoding Theta Wave. International Journal of Cognitive Informatics and Natural Intelligence (IJCINI), 12(2), 17-31.
8. C. Sandhya, **A. Kavitha**, (2017), Analysis of Speech Imagery using Brain Connectivity Estimators on Consonant-Vowel-Consonant (CVC) words, International Journal of Biomedical Engineering and Technology,
9. S. Vidhusha, **A. Kavitha**, (2016), Inter-hemispherical Investigations on the Functional Connectivity of Autistic resting state fMRI, International Journal of Cognitive Informatics and Natural Intelligence, Vol. 10, pp. 92-105.
10. C. Sandhya, **A. Kavitha**, (2015), Analysis of Speech Imagery using Functional and Effective EEG based Brain Connectivity Parameters, International Journal of Cognitive Informatics and Natural Intelligence, Vol. 9, pp. 33-48.
11. S. Pravin Kumar, **A. Kavitha**, B. Geethanjali and V. Mahesh, (2014), Analysis of Cognitive Load for Bilingual Subjects Based on Lexile Measures, International Journal of Cognitive Informatics and Natural Intelligence, Vol. 8, pp. 18-35.

12. Janani S., Lakshmi Bhavani S. and **Kavitha A.**(2013), ‘Quantitative Analysis of Digitized Mammograms Using Nonsampled Contourlets and Evolutionary Extreme Learning Machine’, Journal of Medical Imaging and Health Informatics, Vol. 3, pp. 206-213.
13. Sathya G., Shilfa T., Thenmozhi M. and **Kavitha A.** (2013), ‘Musculoskeletal Modeling of Hip Joint and Fracture Analysis for Surgical Planning Using FEM’, EJBI, Vol. 9(1):pp. 27–37
14. **Kavitha A.**, Sujatha C.M. and Ramakrishnan S. (2011), ‘Evaluation of Flow-Volume Spirometric test using Neural Network based prediction and Principal Component Analysis’, Journal of Medical Systems, Vol.35, pp.127-133.
15. **Kavitha A.** and Ramakrishnan S. (2010), ‘Comparison of prediction of Forced Expiratory Volume (FEV<sub>6</sub>) in Flow-Volume Spirometric measurements using Radial Basis Function Neural Networks and Support Vector Machines’, Journal of Mechanics in Medicine and Biology, Vol. 10, No. 4, pp. 683-693.
16. **Kavitha A.**, Sujatha C.M. and Ramakrishnan S. (2009), ‘Prediction of Spirometric Forced Expiratory Volume (FEV<sub>1</sub>) data using Support Vector Regression’, Measurement Science Review, Vol. 10, No. 2, pp. 63-67.
17. **Kavitha A.**, Sujatha C.M. and Ramakrishnan S. (2009): Evaluation Of Forced Expiratory Volume Prediction In Spirometric Test Using Principal Component Analysis, International Journal of Bio-Medical Engineering and Technology 4(6).
18. **Kavitha A.** and Ramakrishnan, S. (2007): Assessment of human red blood cell aggregation using image processing and wavelets, Measurement Science Review Vol.7, 43-51.
19. **Kavitha A.** and Ramakrishnan, S. (2005): Analysis on the erythrocyte shape changes using wavelet transforms, Clinical Hemorheology and Microcirculation, Vol.33, 327-335.

### **Book Chapters**

20. Vidhusha, S., & **Kavitha, A.** (2020). Inter-Hemispherical Investigations on the Functional Connectivity in Controls and Autism Spectrum Using Resting State fMRI. In Innovations, Algorithms, and Applications in Cognitive Informatics and Natural Intelligence (pp. 169-186). IGI Global.
21. Kapardi, M., & **Anandan, K.** (2020). Understanding Episodic Memory Through Decoding EEG and Probabilistic Estimation of Brain Functional Connectivity

Parameters. In *Innovations, Algorithms, and Applications in Cognitive Informatics and Natural Intelligence* (pp. 151-168). IGI Global.

22. **Kavitha, A.**, Sudhir, G., Deepak, V. D., Pavithra, M., & Vallabhi, V. (2019). Analysis of Adjacent Vertebrae Post Vertebroplasty. In *3D Printing and Additive Manufacturing Technologies* (pp. 233-242). Springer, Singapore.

### **National Journals**

23. Janani S., Lakshmi Bhavani S. and **Kavitha A.** (2012), 'Automatic segmentation and removal of pectoral muscle in mammograms', *Journal of Instrument Society of India*, Vol. 42, No. 3, pp. 175 – 178.

### **International Conferences**

24. Chrisilla S., Anna Masciantonio, Divya B., Vidhusha S., **Kavitha A.**, (2020), "Effects of Virtual Reality on the EEG sub-band frequency powers of Autistic and Control Groups", 2020 IEEE Sixth International Conference on Bio Signals, Images and Instrumentation (ICBSII 2020), Feb 27-28, 2020.
25. Ashley Bishop, Anandha Sree R., Sandhya C., **Kavitha A.**, (2020), "Vowel Identification from Neural Signals during Articulated Speech", 2020 IEEE Sixth International Conference on Bio Signals, Images and Instrumentation (ICBSII 2020), Feb 27-28, 2020.
26. **Kavitha A.**, Viswath Narayanan R, Yaamini D and Vidhusha S, (2019), "Cognitive Attention in Autism using Virtual Reality Learning Tool", ICCICCI, Milan, Italy.
27. **Kavitha, A.**, Sucharitha S. Prakash, and P. Sreeja., (2019), "Investigations on the Functional connectivity disruptive patterns of progressive neurodegenerative disorders." 41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC). IEEE.
28. C Sandhya, B Divya, **A Kavitha**, T Christy Bobby, (2018), "Influence of Relative Power in Multi-Trial Speech Imagery", 2018 IEEE 17th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\* CC), 431-439.
29. M Kapardi, **A Kavitha**, (2017), "Functional connectivity assessment for episodic memory", 2017 IEEE 16th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\* CC), 257-261
30. Bhuvaneshwari, B., & **Kavitha, A.** (2017, July). Investigations on the brain connectivity patterns in progression of Alzheimer's disease using functional MR imaging and graph theoretical measures. In *2017 IEEE 16th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\* CC)* (pp. 151-160). IEEE.

31. Vishnu Priya, K., & **Kavitha, A.** (2017, July). Estimation of biomarkers for autism and its co-morbidities using resting state EEG. In *2017 IEEE 16th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\* CC)* (pp. 431-437). IEEE.
32. R. Anandha Sree, **A. Kavitha,** (2017), Vowel Classification from Imagined Speech using sub-band EEG frequencies and Deep Belief Networks, International Conference on Signal Processing, Communications and Networking.
33. R. Chitra, Krishna Bairavi, V. Vinisha, **A. Kavitha.** (2017), Analysis of Structural Connectivity on Progression of Alzheimer's Disease using Diffusion Tensor Imaging, International Conference on Signal Processing, Communications and Networking.
34. C. Sandhya, R. Anandha Sree, **A. Kavitha,** (2016), Analysis of Speech Imagery using Consonant-Vowel Speech Syllable pairs and Brain connectivity estimators, 2<sup>nd</sup> International Conference on Biomedical Signals, Systems and Images (BSSI 2016).
35. S. Vidhusha, **A. Kavitha,** (2016), Evaluation of Functional Connectivity patterns in High-functioning Autism using resting state fMRI, 2<sup>nd</sup> International Conference on Biomedical Signals, Systems and Images (BSSI 2016).
36. B. Bhuvaneshwari, **A. Kavitha,** (2016), Assessment of Brain Connectivity Patterns in Progression of Alzheimer's Disease, 2<sup>nd</sup> International Conference on Biomedical Signals, Systems and Images (BSSI 2016).
37. C. Sandhya, G. Srinidhi, R. Vaishali, M. Visali and **A. Kavitha,** (2015), Analysis of Speech Imagery using Brain Connectivity Estimators, IEEE 14<sup>th</sup> International conference on Cognitive Informatics and Cognitive Computing.
38. C. Sandhya, S. Vidhusha, R. S. Gayathri and **A. Kavitha,** (2015), Assessment of functional connectivity in autistic brain fMRI, IEEE 14<sup>th</sup> International conference on Cognitive Informatics and Cognitive Computing.
39. C. Sandhya, **A. Kavitha,** (2015), Investigations on EEG Coherence during repeated learning and recall of a foreign language, Industrial Instrumentation and Control (ICIC).
40. S. Vidhusha, **A. Kavitha,** (2015), Analysis and Evaluation of Autistic Brain MR images using Learning Vector Quantization and Support Vector Machines, Industrial Instrumentation and Control (ICIC).
41. **A. Kavitha,** S. Pravin Kumar (2014), Investigations of EEG Coherence on Foreign Language, 44<sup>th</sup> Annual meeting of Society for Neuroscience.

42. S. Pravin Kumar, **A. Kavitha**, B. Geethanjali and V Mahesh (2013), Analysis of Cognitive Load for bilingual subjects based on lexile measures, 12<sup>th</sup> IEEE International conference on Cognitive Informatics and Cognitive Computing.
43. Akshaya C, Saranya Priyadharshini D., Sowdhami S., **Kavitha A.** and Alphin, (2013) 'Reconstruction of Osteoporotic Femur bone from CT Images', Proceedings of International Conference on Pattern Recognition Applications and Techniques, ISBN: 978-1-25-905849-3, 1-2 March 2013, pp. 74-79.
44. Praveen Richard Ebenezer C, Priyadharshini B, Vishnu Priya K, **Kavitha A.**, Venkateswaran N. (2013), 'Wavelet based image fusion scheme for Human Head modeling', in the Proceedings of International Conference on Pattern Recognition Applications and Techniques, ISBN: 978-1-25-905849-3, 1-2 March 2013, pp. 80-86.
45. Mythili, A., **Kavitha, A.** and Ramakrishnan S. (2010), 'Effect of Spirometric Forced Expiratory Volume ratios  $FEV_1/FVC$  and  $FEV_1/FEV_6$  on transducer resistance', International Conference on Instrumentation (ICI 2009), Pune, India, January 21st-23rd, 2010.
46. **Kavitha A.**, Sujatha C. M. and Ramakrishnan S. (2010), 'Classification of flow volume spirometric data using Principal component analysis and Support vector machines', 4th International Conference on Computer Applications in Electrical Engineering Recent Advances, Indian Institute of Technology Roorkee, India, February 19th – 21st, 2010.
47. **Kavitha A.**, Sujatha C. M. and Ramakrishnan S. (2010), 'Prediction of forced expiratory volume ( $FEV_6$ ) in Spirometric Pulmonary function test', 17th Congress of the European Society of Biomechanics, University of Edinburgh, UK, July 5th - 8th, 2010.