

List of publications:

1. Nagarajan G, Yedukondala Rao V, Himanshu K and Ramakrishnan S (2020) "Emotion Recognition using Electrodermal Activity Signals and Multiscale Deep Convolutional Neural Network", *Journal of Medical Systems* (Accepted)
2. Satyavratana G and Ramakrishnan S (2020) "Differentiation of COVID-19 Conditions in Planar Chest Radiographs Using Optimized Convolutional Neural Networks", *Applied Intelligence* (Accepted)
3. Punitha N, Vardhini P, Vinothini S and Ramakrishnan S (2020) "Analysis of Fluctuations of Uterine Contractions in Preterm pregnancies using Adaptive Fractal features of Electromyography Signals", *Fluctuation and Noise Letters*, **10(4)**, (doi: 10.1142/S021947752150019X)
4. Navaneethakrishna M, Karthick P A, Venugopal G and Ramakrishnan S (2020) "Surface Electromyography Based Muscle Fatigue Analysis using Binary and Weighted Visibility Graph Features", *Fluctuation and Noise Letters* (doi: 10.1142/S0219477521500164)
5. Nagarajan G. and Ramakrishnan S. (2020) "Convolution Neural Network based Emotion Recognition using Electrodermal Activity Signals and Time Frequency Features", *Expert system with Application* (doi: 10.1016/j.eswa.2020.113571)
6. Navaneethakrishna M and Ramakrishnan S (2020) "Characterization of surface electromyography signals of biceps brachii muscle in fatigue using symbolic motif features", *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*. (doi: 17:0954411920908994)
7. Rohini P., Sundar S. and Ramakrishnan S (2020) "Differentiation of Early mild cognitive impairment in MR images using multifractal detrended moving average singularity spectral features", *Biomedical Signal Processing and Control*, **57**, e101780.
8. Arjunan Sridhar, Siddiqi Ariba, Ramakrishnan S, Kumar Dinesh (2020) "Implementation and experimental validation of Surface Electromyogram and force model of Tibialis Anterior muscle for examining muscular factors", *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **234(2)**, 200-209.
9. Rohini P, Ramakrishnan S and Sundar S (2019) "Differentiation of EMCI in sMR images using segmented brainstem multifractal texture measures", *Electronics Letters*. (doi: 10.1049/el.2019.2821)
10. Punitha N and Ramakrishnan S (2019) "Analysis of Uterine EMG signals in Term and Preterm conditions using Generalized Hurst exponent features", *Electronics Letters*, **55(12)**, 681-683.
11. Rohini P, Sundar S and Ramakrishnan S (2019) "Characterization of Alzheimer conditions in MR images using Volumetric and Sagittal Brainstem Texture features", *Computer Methods and Programs in Biomedicine* **173**, 147-155.
12. Satyavratana G. and Ramakrishnan S. (2019) "Analysis of Tuberculosis in Chest Radiographs for Computerized Diagnosis using Bag of Keypoint Features", *Journal of Medical Systems*, **43(4)**, 87.
13. Punitha N. and Ramakrishnan S., (2019) "Multifractal analysis of uterine electromyography signals to differentiate term and preterm conditions", *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **233(3)**, 362-371.
14. S. Shriram, K. Ramamurthy and S. Ramakrishnan (2019) "Effect of occupant-induced indoor CO₂ concentration and bioeffluents on human physiology using a spirometric test" *Building and Environment*, **149**, 58-67.

15. Punitha N, Vardhini P and Ramakrishnan S (2019), "Multifractal Analysis of Uterine Electromyography Signals for the Assessment of Progression of Pregnancy in Term Conditions", *IEEE Journal of Biomedical and Health Informatics*, **23(5)**, 1972-1979.
16. Nagarajan G, Ramakrishnan S and Thomas M Deserno (2018) "Deep learning on biosignals: a survey of the few examples so far", *Yearbook of Medical Informatics*, **27(1)**, 98-109.
17. P. A. Karthick, M. G. Diptasree, and S. Ramakrishnan (2017) "Surface electromyograph based muscle fatigue detection using high resolution time-frequency methods and machine learning algorithms", *Computer Methods and Programs in Biomedicine*, **154**, 45-56.
18. M.G. Diptasree, Dinesh Kumar, Sridhar, Ariba S. and Ramakrishnan S (2017) "A computational model to investigate the effect of pennation angle on surface electromyogram of Tibialis Anterior", *PLOS ONE*, **12(12)**, e0189036.
19. G. Venugopal, P. Deepak, M. G. Diptasree, and S. Ramakrishnan (2017) "Generation of synthetic surface electromyography signals under fatigue conditions for varying force inputs using feedback control algorithm" *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **231(11)**, 1025-1033.
20. Karthick P.A., Ramakrishnan S. (2016) "Surface electromyography based muscle fatigue progression analysis using modified B distribution time-frequency features", *Biomedical Signal Processing and Control*, **26**, 42-51
21. Karthick, P.A., M. Navaneethakrishna, N. Punitha, et al. (2016) "Analysis of muscle fatigue conditions using time-frequency images and GLCM features", *Current Directions in Biomedical Engineering*, **2(1)**, 483-487.
22. Kiran M and Ramakrishnan S (2016). "Analysis of concentric and eccentric contractions in biceps brachii muscles using surface electromyography signals and multifractal". *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **230(9)**, 829-839.
23. Kiran M and Ramakrishnan S (2016), "Classification of muscle fatigue in dynamic contraction using surface electromyography signals and multifractal singularity spectral analysis". *ASME Journal of Dynamic Systems Measurements and Control*, **138(11)** (doi:10.1115/1.4033832)
24. Anandh K.R., Sujatha C.M., Ramakrishnan S. (2016) "Laplace Beltrami eigen value based classification of normal and Alzheimer MR image.s using parametric and non-parametric classifiers". *Expert Systems with Applications* **55**, 208-216
25. Karthick P.A., Venugopal G., and Ramakrishnan S. (2016) "Analysis of Muscle Fatigue Progression Using Cyclostationary Property of Surface Electromyography Signals, *Journal of Medical Systems*". *Journal of Medical Systems*, **40(1)**, 1-11.
26. Karthick P.A., and Ramakrishnan S. (2016) "Muscle Fatigue Analysis Using Surface EMG Signals and Time-Frequency Based Medium to Low Band Power Ratio," *IET Electronic Letters*, **52(3)**, 185-186
27. Kiran Marri and S. Ramakrishnan (2016), "Analysis of Biceps Brachii Muscles in Dynamic Contraction Using sEMG Signals and Multifractal DMA Algorithm," *Journal of Signal Processing Systems*, **4(1)**, 79-85.
28. Edward Jero, S, Ramu, Palaniappan, and Ramakrishnan Swaminathan, (2016)" Imperceptibility—Robustness tradeoff studies for ECG steganography using Continuous Ant Colony Optimization". *Expert Systems with Applications*, **49**, 123-135.

29. Karthick P.A., Venugopal G., and Ramakrishnan S. (2016) "Analysis of surface EMG signals under fatigue and non-fatigue conditions using B-distribution based quadratic time frequency resolution", *Journal of Mechanics in Medicine and Biology*, **15** (5), 1540028.
30. Jero, S. Edward, Palaniappan Ramu, and S. Ramakrishnan. (2016) "ECG steganography using curvelet transform." *Biomedical Signal Processing and Control*, **22**, 161-169.