

## **FACULTY PROFILE**



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**RESEARCH SPECIALISATION/DISCIPLINE:** Image and Signal Processing

**RESEARCH AREA INTEREST:**

- Artificial Intelligence
- Machine Learning
- Image Processing
- Signal Processing
- Biomedical Instrumentation
- Wireless Communication and
- Cloud Computing.

**CURRENT RESEARCH AREA:** Currently concentrating on the following research fields.

- Image and Signal processing
- Machine Learning and
- IOT

### **PUBLICATIONS**

1. Chitradevi, D., S. Prabha, and Alex Daniel Prabhu. "Diagnosis of Alzheimer disease in MR brain images using optimization techniques." *Neural Computing and Applications*, Springer, pp. 1-15, May 2020, <https://doi.org/10.1007/s00521-020-04984-7> (I.F – 4.774)
2. Chitradevi, D., and S. Prabha. "Analysis of brain sub regions using optimization techniques and deep learning method in Alzheimer disease." *Applied Soft Computing*, Vol. 86, pp. 105857, 2020 (I.F – 5.472)

3. Sankaran, K. Sakthidasan, S. Prabha, and PM Rubesh Anand. "Optimized gradient histogram preservation with block wise SURE shrinkage for noise free image restoration." *Cluster Computing Springer*, Vol. 22, No. 2, pp. 4457-4478, 2019 (I.F – 3.458)
4. Prabha S, Sujatha CM. Proposal of Index to Estimate Breast Similarities in Thermograms using Fuzzy C Means and Anisotropic diffusion Filter based Fuzzy C Means Clustering, *Infrared Physics and Technology, Elsevier*, 93, pp. 316-325, 2018 (I.F – 2.379)
5. Chitradevi, D, Prabha S & Sakthidasan Sankaran K. "Brain Hemisphere Analysis Using Genetic Algorithm and Fuzzy Clustering in Alzheimer Disease" pp. 901-905, 2018
6. Prabha S, Suganthi SS, Sujatha CM. "Analysis of Breast Thermal Images using Anisotropic Diffusion Filter based Modified Level Sets and Efficient Fractal Algorithm", Dec 15-16, 2017.
7. Chitradevi D, Prabha S. "Evaluation of Symmetry Plane using Genetic Algorithm", March 15-17, 2017.
8. Prabha S, Suganthi SS, Sujatha CM. An Approach to Analyze the Breast Tissues in Infrared Images Using Nonlinear Adaptive Level sets and Riesz Transform Features, *Technology and Health Care, IOS Press*, 23(4), pp. 429-442, 2015.
9. Prabha S, Suganthi SS, Sujatha CM. Differentiation of Breast Abnormalities in Infrared Images using Reisz and Quaternion Hilbert Transform based Features, *International Journal of Biomedical Engineering and Technology, Inderscience Publisher*, 19(3), pp. 255-265, 2015.
10. Prabha S, Sujatha CM, Ramakrishnan S. Robust Anisotropic Diffusion Based Edge Enhancement for Level Set Segmentation and Asymmetry Analysis of Breast Thermograms using Zernike Moments, *Journal of Biomedical Science Instrumentation*, 51, pp. 341-348, 2015.

## **INDEXED BOOK PUBLICATION**

1. Prabha S "Edge Enhancing Coherence Diffusion Filter for Level Set Segmentation and Asymmetry Analysis using Curvelets in Breast Thermograms" Chapter Proposal selected in the Book Titled "Signal and Image Processing techniques for the Development of Intelligent Healthcare Systems" E. Priya, V. Rajinikanth (Eds), Springer Nature, 2020.
2. Prabha S "Automatic Detection of Malarial Parasitema Using Efficient Fractal Analysis", Chapter Proposal selected in the Book Titled "Advances in Nano Instrumentation Systems and Computational Techniques" K. K. Anand, D. Najumnissa Jamal, P. M. Jawahar (Eds), Nova Science Publishers, 2019.
3. Prabha S "Dental Image Segmentation using Clustering Techniques and Level Set Method", Chapter Proposal selected in the Book Titled "Computational Techniques for Dental Image Analysis", K. K. Anand, B. Thayumanavan, P. M. Jawahar (Eds), IGI Global Publishing, 2018.