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Present Position

Professor, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai from March-2018.

Present Additional Responsibility

- Deputy Director, Centre for Distance Education, Anna University, Chennai from March-2015.

Previous Positions

- Lecturer, Department of Electronics and Communication Engineering, College of Engineering Guindy, Anna University, Chennai during July-1996 and July-2001.

Other Employment

- , .

Degree

- ❖ M.E. in Medical Electronics, College of Engineering, Anna University, Chennai (1993 - 1996).
- ❖ B.E. in ELECTRONICS AND COMMUNICATION ENGG , Madurai Kamaraj University , 4 (1987 - 1991).

Research Degree

- ❖ Ph.D. in Medical image Processing from Faculty of Information and Communication Engineering, College of Engineering, Anna University (2001 - 2009).
Title: Segmentation and 3D Visualization of stenosis in X-ray angiogram images. .

Area of Specialisation

- Medical image Processing
- Pattern recognition and Advanced Neural computing,Physiological Modeling

Research Guidance

Number of Ph.D Scholars Guided	: 2
Number of Ph.D Scholars Guiding	: 3
Number of M.E./ M.Tech. Projects Guided	: 60
Number of M.E./ M.Tech. Projects Guiding	: 8

Papers Published in Journals

Research Papers Published in International Journals	: 20
Research Papers Published in National Journals	: 0

1. Nirmala Devi S. and Kumaravel N, "Back propagation network for segmentation and blood flow velocity determination in coronary angiogram images", Information Technology Journal, Vol. 6, Issue 2, pp. 212-216 (2007).
2. Nirmala Devi S. and Kumaravel N, "Comparison of active contour models for Image segmentation for X-ray coronary angiogram images", Journal of Medical Engineering and Technology, published by Taylor & Francis. Vol. 32, Issue 5, pp. 408-417 (2008).
3. Nirmala Devi S. and Kumaravel N, "A Novel Segmentation method using Multiresolution analysis with 3D Visualization for X-ray coronary angiogram images", Journal of Medical Engineering and Technology , published by Taylor & Francis. Vol. 32, Issue 3, pp. 234-244 (2008).
4. I S.Harini, Dr.S.Nirmala Devi, " Fuzzy with ISF based controller for Intravenous Infusion delivery system", International Journal of Scientific & Engineering Research , Vol. 5, Issue 5, (2014).
5. Keerthika.R, K, Dr.S.Nirmala Devi, " 3D visualization of major blood vessels in CT liver image ", IOSR Journal of Electronics and Communication Engineering , April 2014, Volume 1, P-ISSN 2278-8735, pp 83-12., published by IOSR. Vol. 1, pp. 83-92 (2014).
6. Sivashankar.K, Dr.S.Nirmala Devi, "Assessment of Geometrical Information of Coronary artery tree using Topogical analysis ", IOSR Journal of Electronics and Communication Engineering, published by IOSR . Vol. 1, pp. 13-18 (2014).
7. Saranya G and S.Nirmala Devi, "An efficient approach for image fusion technique using different transform methods", International journal of Imaging and Robotics, Vol. 15, Issue 4, (2015).
8. M. Suresh Kumar and S. Nirmala Devi, "Sparse Code Shrinkage Based ECG De-Noising in Empirical Mode Decomposition Domain ", Journal of Medical Imaging and Health Informatics, published by American Scientific Publishers. Vol. 5, pp. 1-6 (2015).
9. Selvalakshmi.V.M & Dr.S.Nirmala Devi, "Improved Fuzzy Clustering and Legendre Level Sets for Segmentation of Multiple Tumors in Low Contrast Liver CTA Images", Current medical Imaging Reviews, (2016).

10. R.Janaki & Dr.S.Nirmala Devi, "Classification of Dermoscopic Images for the detection of Melanoma", Advances in Natural and Applied Sciences Journal , (2016).
11. R.Janaki & Dr.S.Nirmala Devi, "Characteristics study of Dermoscopic images", International Journal of Biomedical Engineering and Technology, published by Inderscience. (2016).
12. Saranya.G, Nirmala Devi.S, "Data Hiding and Retrieving Using Complex Contourlet Transform", Asian Journal of Information Technology, Vol. 15, Issue 21, pp. 4400-4406 (2016).
13. R.Janaki & Dr.S.Nirmala Devi, "Automatic segmentation and feature extraction of Dermoscopic images", International Journal of innovative Engineering and Technology , Vol. 1, pp. 8-19 (2016).
14. Selvalakshmi.V.M, Nirmala Devi.S, "A Novel Region Based Segmentation of Hepatic tumors and Hepatic vein in low contrast CTA images using Bernstein Polynomials", Biomedical Research, pp. S324-S333 (2017).
15. Selvalakshmi.V.M, Nirmala Devi.S, "Segmentation and 3D Visualization of Liver, Lesions and Major Blood Vessels in Abdomen CTA Images", Biomedical Research, Vol. 28, Issue 16, pp. 7206-7212 (2017).
16. Saranya.G, Nirmala Devi.S, "A Novel Method for Multimodal Fusion Based Image Embedding and Compression Technique Using CT/PET Images", Biomedical Research, Vol. 28, Issue 4, pp. 2796-2800 (2017).
17. Angelin Jeba.J, S.Nirmala Devi, "Various segmentation techniques for Lung tumour therapy planning on Fused PET/CT images", International Journal of Advanced Research trends in Engineering and Technology, Vol. 4, Issue 19, (2017).
18. Saranya.G, Nirmala Devi.S, "An Optimization Method for Fusion Based Reversible Embedding and Retrieving in MRI/CT Medical Images", International Journal of Biomedical Engineering and Technology, Vol. 25, Issue 2, pp. 133-150 (2017).
19. Saranya.G, Nirmala Devi.S, "An Approach for Spread Spectrum based Data Embedding and Retrieving using Optimization Technique in Medical Image", International Journal of Imaging and Robotics, Vol. 18, Issue 3, (2018).
20. Saranya.G, Nirmala Devi.S, "Octagon with Diagonal Cross Hair Search Algorithm for Efficient Medical Image Compression", Journal of Medical Imaging and Health Informatics , Vol. 8, pp. 1-8 (2018).

Papers Presented in Programmes

Research Papers Presented in International Programmes : 24
Research Papers Presented in National Programmes : 5

1. "A Variational Method for Automatic Hepatic Vein Segmentation in CTA images using CORF operator" presented in a International level conference on IEEE WISPNET, organised by SSN Engineering college, India .

2. Saranya.G, Nirmala Devi.S, "Performance Evaluation for Image Fusion Technique in Medical Images Using Spatial and Transform Method" presented in a International level conference on IEEE International Conference on Wireless Communications, Signal Processing and Networking, organised by SSN Institutions, India .
3. "Matched filter approach for Quantification of narrowing coronary blood vessels" presented in a International level conference on International Conference on Computer Science and its Applications, San Diego, California .
4. "Improved K-Means Algorithm for vascular network detection" presented in a International level conference on International Conference on Computer Science and its Applications, San Diego, California .
5. "Wavelet based coronary blood vessel segmentation using entropy thresholding" presented in a International level conference on 3rd International Conference on Advances in Medical Signal and Information Processing, Glasgow .
6. Nirmala Devi S. and Kumaravel N, "Multiresolution based segmentation using entropy thresholding technique" presented in a National level conference on National Conference on Microelectronics and Communication (NCMEC), organised by SRMC, Deemed University, Chennai, Ind .
7. Nirmala Devi S. and Kumaravel N, "Image segmentation of coronary Angiogram images by using Improved Gradient Vector flow method" presented in a National level conference on National Conference on Emerging Technologies.
8. C.Vinu, Dr.S.Nirmala Devi, "Automatic segmentation of thyroid Nodule in ultrasound images" presented in a International level conference on Fourth International Conference on Science , Engineering and Technology (SET 2012) , organised by VIT University ,Vellore , India .
9. Nirmala Devi S. and Kumaravel N, "Blood vessel detection and blood flow rate determination in coronary angiogram images" presented in a National level conference on Conference on Signals, System and Communication from 01-Jun-2006 to 02-Jun-2006.
10. "Comparison of active contour models for coronary angiogram images" presented in a International level conference on International Conference, HIPAAC, organised by SSN, India from 27-Jul-2006.
11. "Segmentation and blood flow velocity determination in coronary angiogram images" presented in a International level conference on IEEE Nuclear Science and Medical Imaging Conference, San Diego, California, USA from 29-Oct-2006 to 04-Nov-2006.
12. Nirmala Devi S. and Kumaravel N, "An efficient method for segmentation and 3D Visualization for coronary angiogram images" presented in a International level conference on International Conference on Modelling and Simulation, organised by Coimbatore Institute of Technology, India from 27-Aug-2007 to 29-Aug-2007.
13. S.Vethanayaki , Dr.S.Nirmala Devi , "Alzheimer's Disease classification from EEG signal" presented in a International level conference on International Conference on Recent trends in Computer Science and engineering (ICRTCSE- 2012) , organised by Apollo Engineering college , Kanchipuram, India from 03-May-2012 to 04-May-2012.

14. B.Malarvizhi, Dr.S.Nirmala Devi, "Image fusion using Pulse coupled neural network" presented in a International level conference on International Conference on Recent trends in Computer Science and engineering (ICRTCSE- 2012) , organised by Apollo Engineering college , Kanchipuram, India from 03-May-2012 to 04-May-2012.
15. M.Suresh Kumar , Dr.S.Nirmala Devi, "Comparative study of brain tumor classification" presented in a International level conference on International Conference on Recent trends in Computer Science and engineering (ICRTCSE- 2012) , organised by Apollo Engineering college , Kanchipuram, India from 03-May-2012 to 04-May-2012.
16. S.Mehanz.H , Dr.S.Nirmala Devi, "Feature extraction for breast cancer recognition using Pulse coupled neural network " presented in a International level conference on International Conference on Recent trends in Computer Science and engineering (ICRTCSE- 2012) , organised by Apollo Engineering college , Kanchipuram, India from 03-May-2012 to 04-May-2012.
17. K.Libi, Dr.S.Nirmala Devi, "Brain tumor segmentation using Pulse coupled neural network" presented in a International level conference on International Conference on Recent trends in Computer Science and engineering (ICRTCSE- 2012) , organised by Apollo Engineering college , Kanchipuram, India from 03-May-2012 to 04-May-2012.
18. K.Madhavan, Dr.S.Nirmala devi, "PET/CT Image fusion for cancer diagnosis" presented in a International level conference on " 6th International conference on science, Engineering and Technology (SET), organised by VIT University ,Vellore , India from 07-May-2013 to 08-May-2013.
19. Vijayaraghavan V , Dr.S.Nirmala devi, "Analysis of ECG and EEG signals to detect epileptic seizures" presented in a International level conference on 6th International conference on Science , Engineering and Technology , organised by VIT University ,Vellore , India from 07-May-2013.
20. K.Madhavan, Dr.S.Nirmala devi, "PET/CT Image fusion for cancer diagnosis" presented in a National level conference on National conference on Recent trends in Computer applications, organised by Jaya Engineering college , India from 23-May-2013.
21. Thenmozhi, Dr.S.Nirmala devi, "Analysis of surface EMG signals in low back patients" presented in a International level conference on International conference on Electrical , Electronics and Computer Science , organised by IT society of India, India from 02-Jun-2013.
22. Arunthathi .S, Dr.S.Nirmala Devi , "Analysis of Fetus Image using 2D ultrasound Images" presented in a International level conference on 3rd International Conference on science and innovative Engineering, organised by Jawahar Engineering College, Chennai., India from 05-Apr-2014 to 06-Apr-2014.
23. Hema Priyadharshini.C, Dr.S.Nirmala Devi , "Active shape Model based segmentation for Lung cancer detection" presented in a International level conference on 3rd International Conference on science and innovative Engineering, organised by Jawahar Engineering College, Chennai., India from 05-Apr-2014 to 06-Apr-2014.

24. S. SureshMohan, G. Saranya, Dr. S. Nirmala Devi, "Multi-modal MRI/CT Image Compression Techniques for Medical Images- A comparative analysis" presented in a International level conference on 3rd International Conference on science and innovative Engineering, organised by Jawahar Engineering College, Chennai., India from 05-Apr-2014 to 06-Apr-2014.
25. S.Harini, Dr.S.Nirmala Devi, "Fuzzy wiyh ISF based controller for Intravenous Infusion delivery system" presented in a International level conference on International Conference on Trends in Technology for convergence , organised by AVS Engineering college , India from 09-Apr-2014.
26. Keerthika.R, K, Dr.S.Nirmala Devi, "3D visualization of major blood vessels in CT liver image" presented in a International level conference on International Conference on Recent Trend in Engineering and management , organised by Indra Ganesan college of Engineering , India from 11-Apr-2014 to 12-Apr-2012.
27. S. SureshMohan, G. Saranya, Dr. S. Nirmala Devi, "A Survey of Image Compression Techniques for Multimodal Medical Images" presented in a National level conference on 2nd National conference on Information & Communication Technology (NCICT), , organised by SSN College of engineering, India from 18-Apr-2014.
28. Angelin Jeba J, Nirmala Devi S, "Various segmentation techniques for Lung tumour therapy planning on Fused PET/CT images" presented in a International level conference on International conference on Innovations and challenges in Engineering and Technology, organised by Kings Engineering College, India from 07-Apr-2017 to 08-Apr-2017.
29. Angelin Jeba.J, Nirmala Devi.S, "Performance Evaluation of Contrast Enhancement Technique for PET-CT Images in HSI Color Space" presented in a International level conference on International conference for Phoenixes on emerging current trends in Engineering and management, organised by Panimalar Engineering College, India from 09-Feb-2018 to 10-Feb-2018.

Sponsored Projects Completed

1. "Somatic Cell Count Flow- through based Reader for detection of mastitis in bovine", funded by DST,New Delhi (March-2012 - March-2015). Project Cost: 4000000.00.