



1. Name: **GNANOU FLORENCE SUDHA**

2. Date of Birth: **12.09.1971**

3. Present Position: **Professor & Head**

**Dept. of Electronics and
Communication Engineering**

Pondicherry Engineering College,

Puducherry – 605 014.

4. Educational profile:

University	Degree	Year of passing	Specialization
Pondicherry University	B.Tech	1992	Electronics and Communication Engineering
Pondicherry University	M.Tech	1994	Electronics and Communication Engineering
Pondicherry University	Ph.D	2005	Medical Optics and Image Processing

5. Employment record: 24 years experience

University/college	Designation	Period
Pondicherry Engineering College	Lecturer	Aug 95 – Aug 2005
Pondicherry Engineering College	Asst. Professor	Oct 2005 - Oct 2008

Pondicherry Engineering College	Associate Professor	Oct 2008 - Oct 2011
Pondicherry Engineering College	Professor	Oct 2011 - till date

6. Consultancy and Sponsored activities:

1. Principal Investigator for the DST sponsored project “ Feasibility study on the Development of an instrument for noninvasive prognosis of dengue “ sanctioned in August 2013 , grant received in March 2014 for Rs.21.21 Lakhs.(April 2014-October 2016).
2. Principal Investigator for AICTE – RPS project titled” Autonomous wireless health monitoring system” with sanctioned amount Rs.9 Lakhs (2011-13).
3. Co-Coordinator for the AICTE – MODROBS project titled ” Modernization of the Advanced Communication lab with sanctioned amount Rs. 20 Lakhs.(2013-2014)
4. Conducted three sponsorship projects two with Dept. of Science and Technology and one with JSS Medical Hospital, Mysore.
5. Established the Embedded Systems laboratory in ECE Dept under a MOU with Freescale Semiconductors, Bangalore.

7. Research

(A) Filed a full patent titled " Noninvasive body fluid monitor" with Indian Patent Office, Chennai (Application No: 201741036050 dated 08/10/2018)

(B). Guidance:

- a) Recognized as a Supervisor in Pondicherry University to guide Ph.D and currently guiding 7 candidates.
- b) Completed the following Ph.D candidates on the thesis titled :
 - i) Security enhancement algorithms for MPEG 2 and H.264 video' in July 2013
 - ii) Design of an Efficient Reversible Floating Point Arithmetic Unit For Digital Signal Processors" in November 2015
 - iii) Studies on Performance Improvising Techniques for Distributed Beamforming of Wireless Sensor Networks' in Aug. 2016.

iv) Software based GPS receiver acquisition and positioning performance enhancement under degraded conditions in Aug. 2017.

v) Studies on efficient despeckling filters for ultrasound thyroid images for improved diagnosis - Jan. 2018

vi) Studies on visual cryptography schemes with improved quality and security - Jan. 2019.

vii) Studies on efficient Indexing and Retrieval approaches for Multibiometric Databases - April 2019.

viii) Investigations on bioelectrical impedance for noninvasive prognosis of dengue haemorrhagic fever - August. 2019

c) Presently supervising 7 students in their research work.

d) Guided more than 30 students for M.Tech dissertations.

8. Area of Research :

Signal Processing, Image Processing and Biomedical Engg.

9. Publications:

Citation indices	
Citation	209
h-index	7
i10-index	6

International Journals:

1. Gnanou Florence Sudha and T.G.Palanivelu, "Polarmetric imaging of subsurface tissue – numerical results", **Journal of BIOMEDICAL OPTICS**, SPIE Publications, vol.10(5), September/October 2005, pp.054014-1-054014-8. ISSN 1083-3668 **IMPACT FACTOR : 2.556, SJR:1.2, SNIP:1.181**

2. Gnanou Florence Sudha, V. Rajkumar, T. Kadhiraavan, M. Manoj and K. Ashok, "Studies On Skin Temperature Changes On A Diabetic Foot "IFMBE Proceedings Springer Link Book series, Volume 21 Springer Berlin Heidelberg, pp.683-686, 2008 ISSN: 1680-0737, ISBN 978-3-540-69138-9 (Print) 978-3-540-69139-6 (Online)

3. Gnanou Florence Sudha and S. Karthik ,”Improved LPC Vocoder using Instantaneous Pitch Estimation Method, International Journal of Wireless Networks and Communications, Research India Publications, Volume 1, Number 1 ,2009, pp. 43–54. ISSN 0975-6507
4. Gnanou Florence Sudha and Hephzibah Kesia, “Real-Time Video Encryption Based On Lorenz Chaotic System”, International journal of Computations in Computer, mathematical sciences and applications, vol.3, no.1-2, Jan-June 2009, pp.41-52. ISSN 0973-6786
5. L.Krishna Bharathi and Gnanou Florence Sudha, "Security Enhancement Using Mutual Authentication in Existing CDMA Systems, International Journal on Computer Science and Engineering, Vol. 02, No. 02, 2010, pp. 237-245, ISSN : 0975-3397.
6. L.M.Varalakshmi and Gnanou Florence Sudha,” Performance Enhancement Of Binary Randomized Arithmetic Coding For Multimedia Encryption, International Journal of Recent Trends in Engineering and Technology, ACEEE, Vol. 3, No. 2, May 2010, pp. 6-8., ISSN: 1797-9617
7. L. M. Varalakshmi and G. Florence Sudha, “Selective Encryption of Video Using Multiple Chaotic Maps”, Information Processing and Management, International Conference on Recent Trends in Business Administration and Information Processing, BAIP 2010, Trivandrum, Kerala, India, March 26-27, 2010. Proceedings, Springer Link Book series, Volume 70, Springer Berlin Heidelberg, pp.164-168. ISSN: 1865-0929, ISBN978-3-642-12213-2 (Print) 978-3-642-12214-9 (Online)
8. V. Vijayalakshmi, L. M. Varalakshmi and Gnanou Florence Sudha, “ Efficient Encryption of intra and Inter Frames in MPEG Video, Recent Trends in Network Security and Applications , Communications in Computer and Information Science, Springer Link Book series,2010, Volume 89, Part 1, 93-104, Springer Berlin Heidelberg, New York. Proceedings of the Third Intl. conference CNSA 2010, Chennai, India, July 23-25 2010, ISSN: 1865-0929.
9. Gnanou Florence Sudha and Anandkumar,” Fault detection and classification in Printed Circuit Board” International Journal of VLSI Design , Vol.2, No1, Jan-June 2011, pp.7-12. ISSN: 2229-3167.
10. L.M.Varalakshmi and Gnanou Florence Sudha ,” An enhanced encryption algorithm for video based on multiple Huffman tables”, Multimedia Tools and applications, **SPRINGER** journal, vol. 51, No.3, pp. 552-557, ISSN: 1380-7501 ,on line Feb 2011 , DOI 10.1007/s11042-011-0963-2, print Volume 64, Number 3, June 2013.

11. Gnanou Florence Sudha, M. Niveditha, K. Srinandhini, and S. Narmadha,” Hand Based Biometric Recognition Based on Zernike Moments and Log Gabor Filters”, International Journal of Research and Reviews in Information Sciences, Science Academy Publisher, United Kingdom, Vol.1, No.4, Dec 2011, pp. 119-125, ISSN: 2046-6439.
12. R.Gunasundari and Gnanou Florence Sudha,” Simulation model of a relay based autonomous ECG monitoring system using wireless sensors”, CiiT International Journal of Networking and Communication Engineering, vol. 4, No15, Dec 2012 pp.925 – 932, ISSN 0974 – 9713
13. L.M.Varalakshmi and Gnanou Florence Sudha, “A Selective Encryption and Energy Efficient Clustering Scheme for Video Streaming in Wireless Sensor Networks” Telecommunication systems Journal, **SPRINGER** Publications, Vol.52, No.4, April 2013. DOI 10.1007/s11235-013-9849-0 ISSN 1018-4864.
14. Varalakshmi kumar, Florence Sudha, Elamparathi parithi, “ Performance Analysis of secured video transmission over 3G networks based on H.264/AVC", International Journal of Multimedia Intelligence and Security, **Inderscience** Publishers Vol. 3, No. 1, 2013, pp.23-50, ISSN(online): 2042-3470, ISSN(print) 2042-3462.
15. A.V. Anantha Lakshmi and Gnanou Florence Sudha, “Design of 4-Bit Reversible Shift Registers”, WSEAS Transactions on Circuits and Systems, Issue 12, Volume 12, December 2013, E-ISSN: 2224-266X.
16. A.V. Anantha Lakshmi and Gnanou Florence Sudha, “Design of a reversible single precision floating point subtractor”, Springer Plus, **SPRINGER**, January 2014, vol. 3:11, DOI:10.1186/2193-1801-3-11, ISSN: 2193-1801.
17. A.V. Anantha Lakshmi and Gnanou Florence Sudha, “Area and Speed Efficient Reversible Fused Radix-2 FFT Unit Using 4:3 Compressor”, International Journal on Recent Trends in Engineering and Technology, ACEEE, vol.10, Issue 2, Jan 2014, pp172-186, ISSN: 1797-9617.
18. G. Florence Sudha, S.Karthik and N.Selva Kumar, “Activity Aware Energy Efficient Priority Based Multi Patient Monitoring Adaptive System for Body Sensor Networks”, Technology and Health care, **IOS Publishers, Amsterdam** vol. 22 , 2014 pp. 167–177 DOI 10.3233/THC-140782, ISSN: 0928-7329
19. Jai Jaganath Babu and Gnanou Florence Sudha, ”Nonsubsampled Contourlet Transform Based Image Denoising in Ultrasound thyroid Images Using Adaptive Binary Morphological Operations”, **IET Computer Vision**, online May 2014, pp. 1–11, DOI:

10.1049/iet-cvi.2014.0008, ISSN: 1751-9632 Volume 8, Issue 6, December 2014, pp. 718 – 728, **Impact factor 0.573, SNIP: 1.172, SJR: 0.336**

20. Arul Elango, Gnanou Florence Sudha and Bastin Francis, "Inverse spiking filter based acquisition enhancement in software based Global positioning system receiver, Applied Computing and Informatics, **ELSEVIER**, ISSN: 2210-8327, <http://dx.doi.org/10.1016/j.aci.2014.02>, Volume 11, Issue 1, January 2015, pp.13-28.

21. Gnanou Florence Sudha and G.Vaikundam, "Robust Spatial Multicasting for Randomly Distributed Sensors" **IET Wireless Sensor Systems**, ISSN 2043-6386, doi 10.1049/iet-wss.2013.0086 online May 2015., **SNIP:1.446, SJR:0.627**

22. Arul Elango, Gnanou Florence Sudha and Bastin Francis, "Weak Signal Acquisition Enhancement in Software GPS Receivers- Pre filtering combined post-correlation detection approach:, Applied Computing and Informatics, **ELSEVIER**, ISSN: 2210-8327, DOI: 10.1016/j.aci.2014.10.002, online, vol.13, 2017, pp.66-78.

23. A.V.AnanthaLakshmi and Gnanou Florence Sudha, "Design of a Reversible Fused Radix-2 Floating Point FFT Unit using 3:2 Compressor," International Journal of New Computer Architectures and Applications, SDIWC, Hong Kong, Vol.4, No.4, 2014, pp. 201-210. ISSN: 2220-9085.

24. A.V.AnanthaLakshmi and Gnanou Florence Sudha, "Design of an efficient reversible single precision floating point adder," International Journal of Computational Intelligence Studies, **INDERSCIENCE** Publishers. Volume 4, No. 1, 2015 pp.2-30. ISSN print: 1755-4977.

25. G.Vaikundam and Gnanou Florence Sudha, "Population Mean Estimate for Adaptive Modulation Under large Phase Error in Single Beamforming Sensor Array, International Journal of Digital Information and Wireless Communications, SDIWC, Hong Kong, Vol.5, No.2, pp.82-94, 2015. ISSN: 2225-658X. Inspec indexed.

26. G.Vaikundam and Gnanou Florence Sudha," An approach to SNR Improvement in Distributed Beamforming of Randomly Distributed Sensors", International Journal of Advanced Computer Technology (IJACT), Volume 4, Issue 1, pp. 133-144, Feb. 2015, ISSN:2319-7900.

27. G. F.Sudha, S. Karthik, and N. Selvakumar, " Uninterrupted Secure Monitoring of Multipatient ECG with Activity Awareness and Relay Selection", Journal of Bioinformatics and Intelligent Control, American Scientific Publishers, Vol. 4, pp.1–9, March 2015, ISSN: 2326-749.

28. G. F.Sudha, and A.V.Ananthalakshmi,, " Design of an Efficient Reversible Single Precision Floating Point Multiplier", Journal of Bioinformatics and Intelligent Control, American Scientific Publishers, Vol. 4, pp. 21-30, March 2015, ISSN: 2326-749.
29. Jai Jaganath Babu and Gnanou Florence Sudha, "Adaptive speckle reduction in ultrasound images using fuzzy logic on Coefficient of Variation", Journal of Biomedical Signal Processing and Control, **ELSEVIER**, Volume 23, pp.93–103, Jan. 2016, ISSN: 1746-8094. . Impact Factor 1.521, SJR-0.686, SNIP-1.455
30. Srividhya Sridhar, R. Sathishkumar and Gnanou Florence Sudha, Adaptive halftoned visual cryptography with improved quality and security, Multimedia Tools Applications, **SPRINGER**, online Nov.2015, DOI 10.1007/s11042-015- 3066-7, Volume 74, No.23, Dec.2015, ISSN : 1380-7501. Impact Factor 1.346. SJR-0.41, SNIP-1.304
31. Srividhya Sridhar, R. Sathishkumar and Gnanou Florence Sudha, Implementation of TiOISSS with meaningful shadows and with an additional authentication image , Journal of Visual Communication and Image Representation , **ELSEVIER**, online Mar.2016, Volume 38, pp.284-296, DOI10.1016/j.jvcir.2016.03.012, ISSN 1047-3203, Impact Factor 1.53. SNIP-1.588 SJR:0.785
32. Jai Jaganath Babu and Gnanou Florence Sudha , "A Density Current Modeled Adaptive Weighted Average Despeckling Filter for Ultrasound Thyroid Images", Indian Journal of Science and Technology, **Scopus Indexed**, Volume 9, Issue 46, December 2016, ISSN : 0974-6846
33. Arul Elango and Gnanou Florence Sudha, "Design of complete Software GPS Signal Simulator with low complexity and precise Multipath Channel Model" Journal of Electrical Systems and Information Technology., **ELSEVIER**, Vol.3, pp. 161–180, ISSN: 2314- 7172 , August 2016.
34. Neelamegam Devarasu and Gnanou Florence Sudha, Study on the use of Multi frequency Bioelectrical Impedance for Classification of Risk of Dengue fever in Indian Children, Vol. 14 CIC 2016 Special Issue International Journal of Computer Science and Information Security (IJCSIS), ISSN 1947-5500.
35. Arul Elango and Gnanou Florence Sudha, " Weak GPS acquisition via compressed differential detection using structured measurement matrix, International Journal on Smart Sensing and Intelligent systems, vol.9, No.4, Dec. 2016. ISSN:1178-5608

36. Neelamegam Devarasu and Gnanou Florence Sudha , Investigation on the influence of the extracellular fluid to intracellular fluid ratio at dual frequencies for prognosis of dengue fever in Indian children, Biomedical Physics & Engineering Express, **IOP Publishing**, Vol.3, No.1, Jan 2017, ISSN: 2057-1976.

37. A.V. Ananthalakshmi and Gnanou Florence Sudha, "A novel power efficient 0.64-GFlops fused 32-bit reversible floating point arithmetic unit architecture for digital signal processing applications", Microprocessors and Microsystems, Embedded Hardware Design, **ELSEVIER**, pp. 366 – 385, vol. 51, June 2017, ISSN 0141- 9331.

38. A.V. Ananthalakshmi and Gnanou Florence Sudha, "Design of a reversible floating point square root using modified non-restoring algorithm", Microprocessors and Microsystems, Embedded Hardware Design, **ELSEVIER**, pp. 39 – 53, vol. 50, May 2017, ISSN 0141-9331.

39. R. Satishkumar and Gnanou Florence Sudha, An Authenticated Threshold Visual Cryptography Scheme with Perfect Reconstruction and Meaningful Shares, International Journal of Computer Science and Information Security, **Thomson Reuter indexed**, IJCSIS, Volume 15, No. 3, March 2017, ISSN 1947 5500.

40. Revathi Balasundaram and Gnanou Florence Sudha, An efficient and reduced memory indexing approach based on priority rank spectral hashing for multibiometric database, International Journal of Biometrics, **INDERSCIENCE Publishers, Scopus Indexed**, Vol. 9, No. 2, pp.113-128, 2017, ISSN 1755-8301.

41. Revathi Balasundaram and Gnanou Florence Sudha, " Retrieval Performance analysis of Multibiometric Database using Optimised Multidimensional Spectral Hashing based Indexing, Journal of King Saud University - Computer and Information Sciences (2018), **ELSEVIER**, doi: <https://doi.org/10.1016/j.jksuci.2018.02.003>. 10th February 2018., ISSN: 1319-1578.

42. Srividhya Sridhar and Gnanou Florence Sudha, "Circular meaningful shares based (k,n) two in one image secret sharing scheme for multiple SECRET IMAGES", Multimedia Tools and Applications, **SPRINGER**, published online on 2nd May 2018 <https://doi.org/10.1007/s11042-018-6019-0>, published online on 2nd May 2018.

43. Neelamegam Devarasu and Gnanou Florence Sudha, "Dual frequency bioelectrical impedance analysis to estimate hematocrit for prognosis of dengue fever in Indian

children,” Biomedical Engineering /Biomedizinische Technik, De Gruyter, Published Online: 2018-09-21 | DOI: <https://doi.org/10.1515/bmt-2017-0174>, ISSN 1862-278X, **SCIE & Scopus indexed**

44. R. Bhairavi and Gnanou Florence Sudha, “Secure Robust Pressure based Routing for Underwater Acoustic Sensor Network”, Journal of Engineering Science and Technology Review, vol. 11 (5) (2018), pp. 10 - 16. ISSN: 1791-2377, **Scopus indexed**

45. Neelamegam Devarasu and Gnanou Florence Sudha, "Dual Frequency Bioelectrical Phase Angle to Estimate Platelet Count for Prognosis of Dengue Fever in Indian Children" , Biomedical Engineering /Biomedizinische Technik, De Gruyter, (Accepted)

46. Srividhya Sridhar and Gnanou Florence Sudha, " Quality Improved (k,n) Priority based progressive visual secret sharing", Multimedia Tools and Applications, **SPRINGER**, (Accepted)

National Journals:

1. Gnanou Florence Sudha and T.G.Palanivelu, "Imaging deeper tissue using wavelength subtraction", Journal of Optics, Optical Society of India, Springer India, vol.34, No.3, July-September 2005, pp.103-107. ISSN: 0972-8821

2. Gnanou Florence Sudha and R.Lakshmi Devi, “Multilayered security solution for Ad hoc networks” IETE Technical Review, vol.24, No.2, March-April 2007, pp.63-71. ISSN: 0256-4602

3. Gnanou Florence Sudha, G.Senthil Kumaran, J.Thirumoorthi, Balamurugan.K and Anand.M”, Optical Monitoring Of Bilirubin – Simulation And Experimental Results“, Journal of Optics, Optical Society of India, Springer India vol.35, April-June 2007, pp.87-97. ISSN: 0972-8821

4. Gnanou Florence Sudha, M.Santosh Kumar, V.Swetha and N. Gobinath, ”The use of Laser Doppler to classify Psoriatic Skin Lesions”, Journal of Optics, Optical Society of India , Springer India, vol 37, No.2, April-June 2008, pp. 63-71. ISSN: 0972-8821

5. Gnanou Florence Sudha, “Relevance Feedback for Image Retrieval”, Journal of Institution of Engineers, India, vol.89, November 2008. ISSN: 0971-0469

6. Gnanou Florence Sudha,"Telemedicine-the wonder tool of Future Health care", IETE Journal of Education, vol.39, No2, April-June 1998, pp. 97-98. ISSN 0970-1664

7. Gnanou Florence Sudha, "Digital Stethoscope", IETE Journal of Education, Vol.40, Nos 3&4, July-Dec 1999, pp.83-86. ISSN 0970-1664.
8. Gnanou Florence Sudha and T.G.Palanivelu, "Imaging subsurface tissue using polarized light - numerical results, Journal of Optics, Optical Society of India, Springer India, vol.33, No.3, April-June 2004, pp.67-79. ISSN: 0972-8821
9. Gnanou Florence Sudha and T.G.Palanivelu, "Electronic Biopsy for skin cancer detection", Journal of Current Sciences, Indian Academy of Sciences, Bangalore, vol.87, No.5, 10th Sept.2004, pp.645-649. ISSN:0011-3891
10. Gnanou Florence Sudha and T.G.Palanivelu, " Polarization based imaging of subsurface tissue, "Indian Journal of Pure and Applied Physics, NISCAIR, New Delhi, vol.42, Dec. 2004, pp.902-907. ISSN 0019-5596
11. Gnanou Florence Sudha and T.G.Palanivelu, "Imaging system brightens view for early detection of skin cancer", News India, Nature Publications, January 2005, pp.10.

International Conferences:

1. Gnanou Florence Sudha, P.Purushotaman and Janardhanan, "Wavelet Analysis of Heart Sounds, International Conference on Medical Diagnostic Techniques and Procedures, IIT Chennai, Dec 15-17,1999.
2. Gnanou Florence Sudha, Baskar, Hariharaputran, Riswan Mohamed and Surya Prakash, "Emergency Patient Tracking System", International Conference on Biomedical Engineering, Anna University, Chennai, 24-26 January, 2001.
3. Gnanou Florence Sudha, Chandra Devi, Mangalakshmi, Nameeta and Cauvery "Digital Watermarking of medical images using wavelets", Biovision 2001, International Conference on Biometrics, IISc, Bangalore, 21-24 December 2001.
4. Gnanou Florence Sudha and B.Nanchariah, "A distributed routing algorithm for data gram traffic in Teledesic system", International Conference on wireless communication networks, SSN College of Engineering, Chennai, 27-28 June 2003.
5. Gnanou Florence Sudha and T.G.Palanivelu, "Visibility enhancement of subsurface tissue images", **World Congress** on Medical Physics and Biomedical Engineering, Sydney, Australia, 24-29 August 2003.

6. Gnanou Florence Sudha and T.G.Palanivelu, "Reflectance Oximetry to assess Blood Oxygen", **Kuala Lumpur International Conference** on Biomedical Engineering, BioMed 2004, Kuala Lumpur, Malaysia, Sept 2-4, 2004.
7. Gnanou Florence Sudha and T.G.Palanivelu, "An investigation on wavelength effects for optical imaging", Kuala Lumpur International Conference on Biomedical Engineering, BioMed 2004, Kuala Lumpur, Malaysia, Sept 2-4, 2004.
8. V.Vijyalakshmi, Gnanou Florence Sudha , T.G.Palanivelu, “ Secure Web Transactions in Sockets Layer using Elliptic Curve Cryptography”, Intl. Conference on Information Security, Pondicherry Engineering college, Pondicherry, Dec 7-9, 2005.
9. Gnanou Florence Sudha, Narain Ponraj, Satyamurthy, Siva Balan, “ Biometrics Based Encryption for Multimedia Content Protection“, Intl. Conference on Information Security, Pondicherry Engineering college, Pondicherry, Dec 7-9, 2005.
10. Gnanou Florence Sudha and P.Jeyashree, ”Facial Expression Recognition using SOM”, ICCIMA , Mepco Schlenk Engineering College, Sivakasi, Dec 13-15, 2007.
11. Hephzibah kezia and Gnanou Florence Sudha, “Encryption of Digital Video Based On Lorenz Chaotic System”, 16th Intl conference on Advanced Computing and Communication, ADCOM 2008, MIT, Anna University, Chennai, Dec 15-17, 2008
12. B.Nancharaiah, Gnanou Florence Sudha and MBR. Murthy, “A scheme for efficient topology management of Wireless Ad hoc Networks using the MARI Algorithm”, 16th **IEEE** International Conference on Networks , ICON 2008 , IIT Roorkee, India, Dec 12-14 2008.
13. L.M.Varalakshmi, G. Florence Sudha and S.Karthik, “ Enhanced Multiple Huffman Table Encryption Scheme using Shuffling of Huffman Codewords”, International Conference on recent advancements in electrical Sciences, KSR College of Engineering, Tamil Nadu, India, 8th and 9th January 2010.
14. L.M.Varalakshmi, Gnanou Florence Sudha, V.Vijayalakshmi, “ Enhanced encryption schemes of video for real time applicatios, **IEEE** Intl conference on Signal Processing, Communication, Computing and Networking Technologies (ICSCCN-2011) , Thuckalay, India, 21 and 22 July 2011.pp, 552-557
15. Gnanou Florence Sudha, A.V.Ananthalakshmi and Sarojini, “Energy Efficient Architecture For Portable Devices”, International Conference on Frontiers of Computer Science, J.N. Tata Convention Center, IISc, Bangalore, 7th -9th August 2011, ISBN 978-81-921929-0-1.

16. G.Vaikundam, Gnanou Florence Sudha, "Distributed Beamforming for Randomly Distributed Sensors with position error correction ", International Conference on Communication Technology and System Design 2011, **Procedia Engineering, Elsevier**, vol. 30, pp. 410-417, Dec-11, ISSN: 1877-7058, Amrita School of Engineering, Coimbatore, India. pp. 877-886. Dec.7-9, 2011.
17. L. M.Varalakshmi, Gnanou Florence Sudha ,” An Efficient Scalable Video Encryption Scheme for Real time applications”, International Conference on Communication Technology and System Design 2011, **Procedia Engineering, Elsevier** , vol. 30, pp. 852-860, , Dec-11, ISSN: 1877-7058, Amrita School of Engineering, Coimbatore, India. pp. 877-886. Dec.7-9, 2011.
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20. G.Vaikundam, Gnanou Florence Sudha, Distributed Beamforming for Randomly Distributed Sensor using Computationally Efficient Phase Adjustment based on Probability Function, International Conference on Electrical, Communication and Information Technology, **Elsevier** Proceeding of ICECIT, pp 230-242,Dec.,21-23, 2012, SRIT, Ananthapur
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25. A.V.AnanthaLakshmi, Gnanou Florence Sudha, "Design of a Novel Reversible Full adder and Reversible Full Subtractor", **Springer** Proceedings of the International Conference on Advances in Computing and Information Technology(ACITY), July 2012, Vol. 178, pp.623 – 632. ISBN No.: 978-3-642-31599-2.
26. A.V.AnanthaLakshmi, Gnanou Florence Sudha, "An Efficient Implementation of a Reversible Single Precision Floating Point Multiplier Using 4:3 Compressor", **Springer** Proceedings of the International Conference on Advances in Information Technology and Mobile Communications(AIM), April 2013, pp. 158 – 172, ISSN: 1865 – 0929.
27. A.V.AnanthaLakshmi, Gnanou Florence Sudha, "Transistor Representation of a Low Power Reversible 32-bit Comparator", **Springer** Proceedings of the International Conference on Advanced Computing, Networking and Informatics (ICACNI), June 2013, pp. 63 -74, ISSN : 1867-5662.
28. J.Jai Jaganath babu and Gnanou Florence Sudha,"An edge preserving and adaptive speckle noise reduction technique for Ultrasound Thyroid images using Nonsubsampled Contourlet Transform ", International conference on emerging trends in Electrical, communication and Information Technologies (ICECIT 2012), **Elsevier** proceedings, December 22nd and 23rd, 2012.
29. Keerthivasan A, Jai Jaganath Babu J and Gnanou Florence Sudha, " Speckle Noise Reduction in Ultrasound Images using Fuzzy Logic based on Histogram and Directional Differences", **IEEE** International conference on communication and signal processing (ICCSP13),3rd,4th & 5th April 2013, India.
30. J.Jai Jaganath babu and Gnanou Florence Sudha, " Non subsampled contourlet transform based image denoisng in ultrasound images using elliptical directional windows and block based noise estimation", **Springer** Proceedings of the International Conference on Advanced Computing, Networking and Informatics (ICACNI), June 2013, pp. 63 -74, ISSN : 1867-5662.
31. G.F.Sudha, G.Arul Elango, Nithilane, Anandasayee, Sarat Chandran Rodin, "Software based Precise Positioning for Indoor and Outdoor Environment, **IEEE** International Conference on

Signal Processing and Communication (ICSC-2013), JIT Noida, 12-14 December 2013, pp.69-74, ISBN:978-1-4799-1605-4 5

32. Gnanakumar, Gnanou Florence Sudha, B.Revathi, "An efficient space partitioning tree approach for indexing and retrieving fingerprint database", Proceedings of the 2015 International Conference on Advanced research in Computer Science Engineering and Technology (ICARCSET 2015) , March 6 -7, 2015, Unnao, India, Proceedings published in **ACM Digital library**.

33. D. Neelamegam and Gnanou Florence Sudha, " Study on the use of Multi frequency Bioelectrical Impedance for Classification of Risk of Dengue fever in Indian Children" Proceeding of the International Conference on Advances in Computational Intelligence in Communication (CIC 2016), October 19-20, 2016, Pondicherry, Proceedings published in Special Issue of International Journal of Computer science and Information security.

34. R. Sathishkumar Gnanou Florence Sudha, "Authenticated Color extended Visual Cryptography with Perfect Reconstruction", **IEEE** International conference on Communication and Signal processing, APEC, Melmaruvathur, 6th April 2017.

35. R.Satishkumar and Gnanou Florence Sudha, Multiple Secret Sharing in Visual Cryptography with Perfect Reconstruction, **IEEE** International Conference on Emerging Trends in Engineering Science and Technologies (ICETEST-17), SV University, Tirupathi, 19th March 2017.

36. Srividhya. S , Jayashree.J and Gnanou Florence Sudha , Error Diffusion with Varying Threshold Halftoning for Enhancing Contrast of Color Images, 5th International Conference on Innovations in Computer Science & Engineering (ICICSE-2017), Guru Nanak Institutions, Hyderabad, 18th & 19th August 2017.

37. Kayavizhi, Bhairavi and Gnanou Florence Sudha, " Localization of nodes with ocean current mobility model in underwater accoustic sensor networks" **Springer** Proceedings International conference on Computer Networks and Inventive Communication Technologies, March 2018, RVS Technical Campus, Coimbatore.

38. Bhairavi and Gnanou Florence Sudha," Modified Dive and Rise technique incorporating Enhanced Weighted Centroid Localization Algorithm with Ocean Current Mobility Model in Underwater Acoustic Sensor Networks", **Springer** [Scopus-Indexed] International Conference on Inventive Communication and Computing Technologies [ICICCT 2019] at Gnanamani College of Technology, TN, India on April 29-30, 2019.

National Conferences:

1. G.F.Sudha,"Computerized Sthetoscope", All India Conference on Biomedical Instrumentation-Indian Perspective, Kota, 20&21 Feb 1999.
2. G.F.Sudha, Hemavathy and Vidya, "Laryngeal disease detection by voice screening, National Conference on Biomedical Engineering, University of Roorkee, April 21-22, 2000.
3. G.F.Sudha and Santhanalakshmi,"Hybrid Frequency and Time Hopping using Kasami Sequence, IETE 21st Midterm Symposium on Emerging Wireless Communication Techniques and Systems, IETE Ahmedabad Centre, 8 and 9 April 2000.
4. G.F.Sudha, Chandra Devi, Mangalakshmi, Nameeta and Cauvery, "Watermarking of medical images using Wavelet transforms, Annual Technical Convention of IETE, Bangalore, 29-30 September 2001.
5. G.F.Sudha, K.Jayanthi and P.Dananjayen, "GFR - A new service category to support TCP traffic over ATM", National Conference on Communications , IISc, Bangalore, Jan 31 - Feb 1, 2003.
6. G.F.Sudha, B.Nancharaiah and M.Ranga Rao, "Reached the unreachable through video conferencing", First national conference in Advances in Electronic Communications, National Engineering College, Kovilpatti, June 3- 4, 2004.
7. G.F.Sudha, Santhosh and Swetha, "Offline Signature Verification System", National Conference in Recent Advances in Communication Engineering, SRKR Engineering College, Bhimavaram, Andhra Pradesh, 24th and 25th June 2005.
8. G.F.Sudha and R.Lakshmi Devi, “ Security solutions at network level in Manets” National Conference on Communication Technologies, Mepco Schlenk Engg. College, Sivakasi, March 10-11, 2006.
9. G.F.Sudha and Jeyashree,” Interactive retrieval of Images using tree structured SOM”, National Conference on Advanced Communication Techniques, Alagappa Chettiar College of Engg. & Tech., Karaikudi, 30-31 March 2007.
10. Hephzibah Kesia and G.F.Sudha, “ Encryption of digital images based on Lorenz and Henon Chaotic maps “, First National Conference on Current trends towards converging technologies, Coimbatore Institute of Engg. and Information technology, 7-8th March 2008.

11. Karthik.S and G.F.Sudha,” Estimation of instantaneous pitch for speech processing applications”, Second National Conference on Communication Technologies, Mepco Schlenck Engg. College, Sivakasi, 14th and 15th March 2008.

10. Details of Books/Monographs, Journals and Proceedings Authored/Edited:

a. Guest Editor for **Special Issue on: “Intelligence in Communication Systems”, International Journals of Advanced Intelligence Paradigms, Inderscience Publishers.**

b. **Special Issue Guest Editor for Proceedings of International Conference On Advances In Computational Intelligence In Communication (CIC 2016), Published by International Journal of Computer Science and Information Security (IJCSIS)., Vol. 14 Special Issue CIC 2016, ISSN 1947-5500, IJCSIS Publication 2016, Pennsylvania, USA**

11. Short term Courses/Training programmes attended:

Sl.No	Programme	Duration (week)	Organized by
1	Winter School on Recent trends in Diagnostic Maintenance, AICTE - ISTE Winter School Programme	15.12.1997 to 27 12.1997. (2 weeks)	Pondicherry Engineering College
2	Short-term course on Multimedia Communication	24.11.1998 to 4.12.1998. (2 weeks)	Electrical Engineering Department, IIT Chennai
3	ISTE Winter School on Recent trends in Advanced Material Science	10.12.1998 to 24.12.1998. (2 weeks)	Pondicherry Engineering College
4	Orientation Course for college and university teachers	3.6.1998 to 30.6.1998. (4 weeks)	Academic Staff College, Pondicherry University
5	AICTE Sponsored Induction Training Programme in	28.10.1999 to 17.11.1999.	Academic Staff College, Pondicherry University

	Engineering		
6	ISTE Winter School on Telecommunication in Biomedical Engineering	15.3.199 to 27.3.1999. (2 weeks)	Pondicherry Engineering College
7	Regional Seminar on Fiber Optics and Applications	22 nd October 1999.	Pondicherry Engineering College
8	AICTE - ISTE short-term course on System Modeling and Simulation	18.11.2002 to 29.11.2002	Pondicherry Engineering College
9	One day workshop on Wireless Communication	28 th March 2003.	BSNL, Chennai and IIP cell, Pondicherry Engineering College
10	AICTE - ISTE short-term training programme on CDMA 2000 - an approach to 3G Wireless systems	15.12.2003 to 26.12.2003 (2 weeks)	Pondicherry Engineering College
11	AICTE-ISTE short term training programme on Fibre for the last mile connectivity	1.12.2006 to 7.12.2006. (1 week)	Pondicherry Engineering College
12	TCS sponsored Faculty Development Programme on Information Security	31.8.2007 to 1.9.2007	Pondicherry Engineering College.
13	Dept. of Information Technology, New Delhi sponsored training programme on Information Security	1.06.2009 to 12.06.2009 (2 weeks)	Pondicherry Engg. College
14	AICTE sponsored Staff development programme on Recent trends in	16.11.2009 to 27.11.2009 (2 weeks)	Pondicherry Engg. College

	Parallel & Distributed Systems		
15	Govt of India, Ministry of MSME sponsored Six Sigma Green Belt certification	19.04.2010 to 23.04.2010 (1 week)	Pondicherry Engg. College
16	Dept. of Information Technology, New Delhi sponsored training programme on Recent trend in Information Security	29.11.2010 to 10.12.2010 (2 weeks)	Pondicherry Engg. College
17	ISTE sponsored short term course on Nano Engineering materials	13.12.2010 to 23.12.2010 (2 weeks)	Pondicherry Engg. College
18	AICTE sponsored Staff development programme on Computational intelligence to power system analysis, control & optimization	06.06.2011 to 10.06.2011 (1 week)	Pondicherry Engg. College
19	AICTE sponsored STTP on Design of Embedded systems-issues and Challenges	16.4.2012 to 27.4.2012 (2 weeks)	Pondicherry Engg. College
20	TEQIP sponsored STTP on Recent advances in Green Engineering	3.12.2012 to 7.12.2012 (1 week)	Pondicherry Engg. College
21	TEQIP sponsored STTP on Recent trends in Measurements and automation	10.12.2012 to 14.12.2012 (1 week)	Pondicherry Engg. College

22	ISTE-SRM sponsored short term course on Microelectronics for wireless communication	6.5.2013 to 11. 5.2013 (1 week)	Pondicherry Engg. College
23	AICTE sponsored FDP on Advances in Software Architecture	27.5.2013 to 7.6.2013 (2 weeks)	Pondicherry Engg. College
24	NMIECT sponsored FDP on Labview	20.2.2015 to 27.2.2015 (One week)	Pondicherry Engg. College
25	Management capacity enhancement programme	16.11.2015 to 20.11.2015 (One week)	IIM, Tiruchi, Chennai campus
26	Biosignal Processing and Telemedicine	27.06.2016 to 02.07.2016 (One week)	Pondicherry Engg. College
27	First state level NAAC awareness workshop	10.01.2017 & 11.01.2017	BGCW, Pondicherry
28	National workshop on IoT technologies and big data analytics for telemedicine applications (NW-IoTBDATA)	30.08.2017 to 31.08.2017	Pondicherry Engg. College

12. Expert lectures delivered:

DATE	PLACE	EVENT	OFFICIATED AS
07.12.2017	Pondicherry Engineering College	AICTE QIP sponsored FDP programme on monitoring of structures	Invited lecture on "WSN for monitoring structures"
14.11.2017	Pondicherry Engineering College	AICTE QIP sponsored FDP programme on 5G mm wave radio transmission for ultra	Invited lecture on "Cloud based Radio Access Networks for 5G"

		high speed wireless technologies	"
11.08.2017	Dhanalakshmi Srinivasan College of Engg & technology, Mahabalipuram	ECE Student Council Inauguration	Chief guest for the inauguration
23.04.2017	Jipmer, Puducherry	First International Undergraduate Medical Students Conference Connaisance 2017.	Panelist in panel discussion on "Future Medical Imaging techniques "
22.04.2017	MVIT, Puducherry	ICMR sponsored two day national seminar on "Advanced technology in health care: Prospects and Challenges"	Invited lecture on "Optical tools for noninvasive diagnosis"
30.06.2016	Pondicherry Engineering College	TEQIP sponsored FDP programme Biosignal processing for Telemedicine applications	Invited lecture on "Medical Optics "
05.01.2016	Pondicherry Engineering College	TEQIP sponsored FDP programme on Optimization techniques and Applications	Invited lecture on "Optimization using Fuzzy logic "
03.11.2015	Pondicherry University	5 day national level workshop on Roadmap towards 5G wireless infrastructure	Invited lecture on "Entity authentication using Biometrics "
30.04.15	University College of Engineering, Tindivanam	Interdisciplinary National Conference on soft computing and its applications	Invited Talk on “ Medical Image Processing – Research issues” and Session Chair
27.02.15	Karpaga Vinayaga College of engineering & Technology	Guest Lecture	Lecture on Overview of Image processing
06.08.14	University College of Engineering, Tindivanam	Inauguration of ECE association activities	Chief Guest and invited talk
12.06.14	University College of Engineering, Tindivanam	FDP on Signals and Systems	Resource person and delivered lecture on “Signal sampling and reconstruction”
28.03.14	Srinivasan Engineering college,	International conference	Key note lecture on “ Research issues in image processing”

	Perambalur		
13.09.13	Krishnasamy college of engineering and technology	Chief guest for One day workshop	Key note lecture on “Digital signal processing applications”
12.06.13	Adhiparasakti Engg college, Melmaruvathur	AICTE FDP on Digital Image processing in Wireless Communication	Expert Lecture on “Digital Signal Processors in Wireless communication”
09.05.13	Pondicherry Engineering College	ISTE-SRM sponsored short term course on Microelectronics for wireless communication	Expert Lecture on “Digital Image Processing in Wireless communication”
04.05.13	Vel Tech Dr. RR & Dr.SR Technical University	Faculty Selection committee	Panel member for the interview of faculty
22.04.13	Pondicherry Engineering College	AICTE sponsored short term course on Security in wireless heterogenous networks	Expert Lecture on “Biometric security “
18.03.13	Veltech University, Avadi	Guest lecture	Lecture on “Power amplifier design”
08.03.13	Srinivasan Engineering college, Perambalur	Chief guest for inauguration function of National conference on Recent trends in Electronics, communication and control engineering	Key note lecture on “Green radio technology”
12.01.13, 13.01.13	Anna University, Trichirrapalli	Anna university , affiliation committee	Expert Member
05.01.13, 06.01.13	Anna University, Trichirrapalli	Anna university , affiliation committee	Expert Member
08.09.12	Annamalai University	Question paper scrutiny board	Expert Member
21.07.12	Veltech University, Avadi	Lab academic audit	Expert member
27.05.12	Mailam Engineering college, Mailam	AICTE FDP on Fuzzy logic and Image Processing	Expert Lecture on “ Application of Fuzzy

			filters for denoising “
16.05.12	Christ Engineering College, Puducherry	AICTE FDP	Expert Lecture on “Passive Optical Networks and Fibre to the home”
03.05.12	Adhiparasakti Engg college, Melmaruvathur	AICTE FDP on Digital Filters and Applications	Expert Lecture on “Applications of Digital filters in Image Processing”
24.04.12	Pondicherry Engineering College	AICTE FDP on Embedded Systems- Issues & Challenges	Expert Lecture on “Embedded System DSP processors”
29.08.11	Arunai Engineering College, Tiruvannamalai	Inauguration of ECE Student Council	Key note address on “Recent trends in Image Processing”
25.08.11	Christ Engineering College	Special lecture	Special lecture on “Digital Image Processing”
04.03.11	Kamban Engineering College, Tiruvannamalai	Intl. Conference on 4G Wireless Computer Networks	Chair person of session
07.03.11	Rajiv Gandhi College of Engineering and Technology, Puducherry	National Technical Symposium, PRESTO 2011	Paper presentation session judge.
02.03.11	Sri Jayaram Engineering College, Cuddalore	National Technical Symposium, Commutronix 11	Inaugural address and Paper presentation session judge
02.09.10	MIET Engineering college, Trichi	Two national workshop on optical communication and networks	Expert Lecture on Optical network
20.07.10	IFET college of engineering, Villupuram	Inauguration of Assoc. of Communication Engineers	Lecture on “Digital Image Processing”
04.03.09	Kamban Engineering college, Tiruvananmalai	National level technical symposium	Judge for technical session
21.09.08	IFET college of engineering, Villupuram	8 th National conference on VLSI design, signal processing and communication	Session chair
06.09.08	Mailam Engg. College, Mailam	Guest lecture	Lecture on “Power spectrum estimation”
29.07.08	Dhanalakhmi Srinivasan Engg.	Inauguration of Student association of Biomedical	Key note address on “Biomedical optics”

	College, Perambalur.	engineering	
24.03.08	VRS College of Engineering and Technology, Villupuram	State level technical symposium	Key note address on “Signal Processing applications”
02.02.08	Sri Manakula Vinayagar Engg. College, Madagadipet, Puducherry	AICTE SDP ”Research challenges and trends in Modern communication systems and networking”	Expert Lecture on “Entity authentication in computer networks”
01.09.07	Dhanalakhmi Srinivasan engg. College, Perambalur.	Two day national level workshop on signal and Image processing using Matlab	Expert Lecture on “Applications of Digital Image Processing”
26.07.07	Sri Manakula Vinayagar Engg. College Madagadipet, Puducherry	AICTE National seminar on “Advances in optical networking”	Expert Lecture on “Fibre to the home network”
22.03.07	Mailam Engineering college, Mailam	ISTE staff development programme on” Emerging trends in embedded technology”	Expert Lecture on “ Image processing “
17.03.07	Dr. Pauls Engg. College	One day workshop on computer networks and signals and systems	Lecture on “Signals and systems”
19.02.07	SKP. Engg. College, Tiruvanamalai	Inauguration of Technical symposium Cyber probe 07	Inaugural address and session judge
30.11.06	Pondicherry Engg. College	ISTE STTP on Recent trends in All Optical Networks	Lecture on “FTH and PON”
20.11.06	Pondicherry Engg. College	DIT sponsored STTP on Information security	Expect lecture on “Biometric security”
30.09.06	Mailam Engineering college, Mailam	Special lecture	Talk on “Digital Signal processing”
26.11.05	SRM University	STTP on Recent trends in Biomedical Instrumentation	Expert talk on “Medical Optics”

13. Membership of Professional Organizations:

- Member of IEEE
- Life member of ISTE
- Life member of Biomedical Society of India.
- Life member of Optical society of India

14. International Conference Organized:

Organizing secretary, **International Conference on Computational Intelligence in Communication (CIC 2016)** sponsored by TEQIP-II during 19th & 20th October 2016.

The proceedings of the conference was published in the International Journal of Computer Science and Information Security (IJCSIS), Thomson Reuter indexed journal as Vol. 14 Special Issue CIC 2016, ISSN 1947-5500.

15. Courses/ Seminars / Workshops organized:

- a) Coordinated the one week AICTE-STTP on Emerging trends in Multiresolution analysis techniques in Wireless Communication from 16th September to 21st September 2019.
- b) Coordinated the one week AICTE-QIP-STC on Recent trends in Wireless multimedia communications from 21st March to 27th March 2019.
- c) Coordinated the 3 day workshop for B.Tech students on Hard and soft processors based Embedded system design from 13th December to 15th December 2017.
- d) Coordinated the 8 day training programme on VLSI design using NI hardware and software sponsored by Pondicherry e-governance Society from 22nd September to 1st October 2015.
- e) Coordinated the Faculty training program entitled," Two Days Hands-on Training Program on TMS 320C67XX Digital Signal Processors during 27th and 28th April 2015 in collaboration with Pantech Solutions, Chennai.
- f) Coordinated the TEQIP sponsored Short term training programme on 'Wireless sensor networks-Issues and Challenges' during 11th to 15th November 2013.
- g) Coordinated a two day workshop on Linux operating system for BTech students during 2nd and 3rd March 2012.
- h) Coordinated the Freescale sponsored 4 days hands on training programme for faculty on Embedded system processors from 29th July.2010 to 1st August 2010.
- i) Coordinated the AICTE-ISTE Short term training programme on 'Multimedia Signal Processing and Communication' during 7th to 12th May 2008.

- j) Coordinated the ISTE-NSTEB Short term training programme on 'Faculty awareness camps on Entrepreneurship' during 13th to 15th May 2008.
- k) Convenor of the VSNL sponsored panel discussion in 2006 and 2007.
- l) Coordinator of the Inter Collegiate technical symposium "GENESIS" , conducted every 4 year in 2000, 2004 and 2008.

16. Courses taught:

- Digital Signal Processing
- RF system design for wireless communication
- Satellite Communication
- Image Processing
- Electronics Devices and Circuits.

17. Expert Member visit / Board of Studies details:

o Expert member for AICTE Expert Visit Committee and Scrutiny Committee

- o Expert member for Affiliation committee for Anna university.
- o Expert member for DHTE, Govt. of Pondicherry, for committee to issue NOC to start new courses.

o Chairperson for Central valuation for B.Tech and M.Tech (ECE) of Pondicherry University.

o Chairperson for Pondicherry University for curriculum and syllabus revision B.Tech and M.Tech (ECE) for engineering colleges affiliated to Pondicherry University.

- o Board of studies member of Pondicherry University.
- o Board of studies member of Anna University PG programmes.
- o Board of studies member for Sri Padmavathi Mahila Visvavidyalayam, Govt. state level University, Tirupathi.
- o Board of studies member for B.E and M.Tech courses of VelTech University, Chennai.
- o Board of studies member for Arunai Engineering College (Autonomous college under Anna University).

- o Member of Sub-Committee of Pondicherry State Higher Education Council constituted for monitoring the functioning of college cells.
- o Member of State level committee for grant of subsidy to the industrial units set up by SC/ST and Women entrepreneurs and thrust and industrial units.
- o **Ph.D thesis examiner** for Anna University, Satyabama University, B.S. Abdur Rehman, SRM University, University of Kerala, Visweraaya Technological University, Bangalore and S.V.university, Tirupathi.
- o Ph.D thesis examiner for University of Johannesburg,
- o M.S Dissertation examiner for BIUST, Bostwana
- o Governing body member of Pope John Paul College of Education between 2008-09.
- o **Academic Audit of UG programmes of University departments of Anna University**
- o Academic audit External Member for School of Bioengineering, SRM Univeristy.
- o Faculty selection committee member for Vel Tech Dr. RR & Dr.SR Technical University in May 2013.
- o Expert member for Lab auditing for Vel Tech Dr. RR & Dr.SR Technical University
- o Question paper Passing board member for Anna University and Annamalai University.
- o **Doctoral committee member for Ph.D programmes** in Anna University, Chennai .
- o Doctoral committee member for Ph.D programme in VIT, Vellore
- o Doctoral committee member for Ph.D programme in Satyabama University.
- o Doctoral committee member for Ph.D programme in SRM University
- o Doctoral committee member for Ph.D programme in Pondicherry University
- o Expert member and Resource person for various National & International conferences, FDPs and Workshops.

18. Reviewer of Journals and books:

- o **Reviewer for Springer Journals** - Medical & Biological Engineering & Computing, Signal, Image and Video Processing, Machine vision and applications, Wireless personal Communication.
- o **Reviewer for Elsevier Journals** - Neurocomputing, Medical Imaging and Infrared Physics & Technology, Wireless Personal Communication.

- o **Reviewer for Eurasip Journal** on image and video processing
- o **Reviewer for IEEE Signal processing Letters**
- o **Reviewer for Wiley Journal** International Journal of Communication Systems.
- o **Reviewer for Inderscience Journals** - Biomedical Engineering and Technology and International Journal of Computational Vision and Robotics .
- o **Reviewer of book “ Electronic Communication” by Kennedy and "Digital Signal Processing" for Tata McGraw Hill Education.**
- o **Reviewer of book titled “ DSP” for Tata McGraw Hill Education.**
- o Reviewer for the Journal Sensor Letters, American Scientific Publishers
- o Reviewer for Medical Science Monitor Journal
- o Reviewer of technical papers in several International and National conferences

19. **Awards received:**

- a. Received the **Govt. of Pondicherry prize for being the B.Tech** student with best academic record in the Dept. of Electronics and Communication Engineering, Pondicherry Engineering College (1988-1992)
- b. Received the **Pondicherry University Gold Medal** for outstanding performance in **M.Tech (Electronics and Communication Engineering)** for best academic record (1992-1994)
- c. Received the **M.S.Valiathan award** in the **International student paper competition** organized by the Biomedical Society of India, in the International Conference on Biometrics, Biovision 2001, held in IISc, Bangalore during Dec.22-24, 2001 for the paper titled "Digital Watermarking of medical images using Wavelets".
- d. Received the **best paper award for the paper** “Security solutions at network level in Manets”, G.F.Sudha and R.Lakshmi Devi at the National conference on communication technologies, Mepco Schlenk Engineering college, Sivakasi, March 10-11,2006.
- e. Received **Certificate of Participation with Distinction** from Center for Development of Technical Education, Commonwealth of Learning Knowledge Incubation for Technical Education Quality Improvement Programme , Indian Institute of Technology Kanpur for successfully fulfilling the necessary requirements of MOOC on MOOC, a Massive Open Online Course for Development, Nov 2014.

f. Received the **Certificate of appreciation** for active participation in the Quality Enhancement in Engineering Education initiative from IIT Madras for 2014-2015.

g. Received the **Appreciation Certificate for Reviewer from Springer** in 2014 and **Elsevier** for 2015 and 2016, TRI Journal in 2018 and Springer Nature in 2019.

h. Received the **Appreciation Certificate for Mentor for NPTEL online certification course " Soft skills"** in 2018-19.

19. Ph.D Guidance:

Sl.No	Title	Candidate	Remarks
1	Study of security enhancement techniques for MPEG2 and H.264 video	L.M.Varalakshmi	Completed
2.	Studies on beamforming techniques for distributed beamforming of wireless sensor networks	G.Vaikundam	Completed
3.	Design of an efficient reversible floating point arithmetic unit for digital signal processors	A.V.Ananthalakshmi	Completed
4.	Studies on efficient despeckling filters for ultrasound thyroid images for improved diagnosis	J.Jaganatha Babu	Completed
5.	Software based GPS receiver acquisition and positioning performance enhancement under degraded conditions	G.Arul Elango	Completed
6.	Studies on visual cryptography schemes with improved quality and security	Satish Kumar @ Nanda kumar	Completed

7.	Studies on Efficient indexing and retrieval approaches for multi-biometric data bases	B.Revathy@ Ponmozhi	Completed
8.	Investigations on bioelectrical impedance for noninvasive prognosis of dengue Haemorrhagic fever	D.Neelamegam	Completed
9.	Visual cryptography for image security	S.Srividhya	Ongoing
10.	Performance improvement in underwater wireless sensor networks	R.Bhairavi	Ongoing
11	Studies on Prediction Models for Respiratory disorders	S.Jayalakshmi	Ongoing
12	Low Power VLSI Architecture of Single Precision Floating Point AU	A Arunkumar Gudivada	Ongoing

20. M.Tech Guidance:

Sl.No	Title	Candidate	Year of completion
1.	Comparison of ECG compression algorithms	V.Vijayakumar	1997
2.	New Channel assignment schemes in cellular mobile networks	P.Soundiramoorthy	1998
3	Signature Verification system	M Christu Raja	2000
4.	Hybrid Freq & Time Hopping using Kasami Sequence	Santhanalakshmi	2000
5	Performance Analysis of Hybrid WH/TS OCDMA in fibre optic networks	Vidya	2001
6	Congestion control in real time MPEG networking	Rajasekar.A	2001
7	A new service category to support TCP traffic over ATM	Sujan Kumar	2002
8	Performance analysis of 3D optical codes for OCDMA networks	Indumathi.B	2002
9.	Distributed routing algorithm for data gram traffic in Teledesic system	B.Nanchariah	2003
10.	Super resolution image enhancement	Geetha Devi .A	2004

11	Comparison of RSA and ECC security algorithms	Varalakshmi.R	2004
12	Secure Web Transactions in Sockets Layer using ECC	Narmadha Devi	2005
13	Multilayered security solution for Ad hoc networks	R.Lakshmi Devi	2006
14	Interactive retrieval of Images using tree structured SOM	Jeyashree.T	2007
15	Encryption of Digital Video Based On Lorenz Chaotic System	Hephzibah kezia	2008
16	Improved LPC Vocoder using Instantaneous Pitch Estimation Method	S. Karthik	2008
17	Multiple description coding of images in Manets	Kanimozhi	2009
18	Improving voice quality by speech bandwidth extension	Prathiba	2009
19	Security enhancement of CDMA systems	L.Krishna Bharthi	2010
20	Efficient encryption algorithm for MPEG video	V.Vijayalakshmi	2010
21	Fault detection and classification in PCB using image processing techniques	K.Anandkumar	2011
22	Efficient encryption algorithm for H.264 video	Barathi.P	2011
23	Performance analysis of collaborative beamforming in wireless sensor networks	Vasumadhi.S	2012
24	Performance analysis of linear beamforming in wireless sensor networks	Shebi	2012
25	Speckle noise reduction in ultrasound images using fuzzy logic	Keerthivasan.A	2013
26	Performance enhancement of GPS acquisition system	Francis Bastian	2013
27	Performance enhancement of GPS receiver metrics using compressive sensing approach	Ilamparithi.T	2014
28	Activity aware energy efficient adaptive protocol for body sensor networks	S.Karthik	2014
29	Efficient Indexing technique for Biometric data bases	Gnanakumar	2015
30	Adaptive halftoned visual cryptography with improved quality and security	S. Srividhya	2015
31	Energy efficient routing protocols for body sensor networks	D.Gunavathi	2016
32	Colour visual cryptography for sharing multiple images using circular shares	V.Vijayalakshmi	2016
33	FPGA Implementation of a classifier for	G.Thamizhmullai	2017

	arrhythmia diagnosis		
34	Progressive visual cryptography for colour images	J.Jayasree	2017
35	Localization Of Nodes In Underwater Acoustic Sensor Networks	C.Kayalvizhi	2018
36	Enhanced Relay Selection For OFDM Cooperative Underwater Acoustic Sensor Networks.	R. Manoranjitha	2018
37	Localization and Enhancement of Geographic Routing Protocol for Underwater Acoustic Sensor Networks	A. Sarojini	2019