

Faculty Vitae

Name of the Faculty				
Dr.M.SUNDARARAJAN				
Education				
	Degree	Discipline	Institution	Year
UG	B.E.,	Electronics and Communication Engineering	Bharathidasan University/ Trichy / INDIA	1989
PG	M.S.	Electronics and Control	Birla Institute of Technology & Science Pilani / INDIA	1999
PhD	Ph.D	Electronics and Communication Engineering	Bharath Institute of Higher Education and Research	2009
Academic experience				
Institution	Title	From	To	FT/PT
Bharath Institute of Higher Education and Research, Chennai.	Dean	June-2015	Till Date	FT
Alpha College of Engineering & Technology, Puducherry.	Principal	June-2014	May-2015	FT
Lakshmi Narain College of Technology, Indore.	Principal	Jan-2014	May-2014	FT
Sri Lakshmi Ammal Engineering College, Chennai	Principal	July 2011	Nov 2013	FT
Gojan School of Business and Technology, Red Hills, Chennai	Principal	August 2010	June 2011	FT
Sri Lakshmi Ammal Engineering College, Chennai	Principal	July 2009	July 2010	FT
Sri Lakshmi Ammal Engineering College, Chennai.	Professor & Head	April 2009	June 2009	FT
Bharath Institute of Higher Education & Research, Chennai.	Professor & Head	Dec. 2006	March. 2009	FT
Bharath Institute of Higher Education & Research, Chennai.	Asst. Professor	Dec. 2000	Dec. 2006	FT

Bharath Institute of Science & Technology, Chennai, Tamilnadu	Senior Lecturer	Dec. 1997	Dec. 2000	FT
Bharath Institute of Science & Technology, Chennai, Tamilnadu	Lecturer	Dec. 1990	Dec. 1997	FT
Certifications or professional registrations				
Nil				
Membership in professional organizations				
<p>(a) Life Member of the Institute of Engineers (India) since 2002 (M122978-2).</p> <p>(b) Life Member of the International Association of Computer Science and Information Technology, Singapore since 2009 (80333414).</p> <p>(c) Life member of the International Association of Engineers-IAENG, Hong Kong since April 2010 (106802).</p> <p>(d) Life Member of the Indian Society for Technical Education since 2011 (LM80209).</p> <p>(e) Member of IEEE since 2016</p>				
Honors and awards				
<ol style="list-style-type: none"> 1. <i>“Service Sans-pareil”</i> award conferred by Lions Club of Gandhi Avenue, Chennai for outstanding service in the promotion of Educational Excellence, 2. <i>“Best Teacher Award – 2002”</i> conferred by Bharath institute of Science & Technology, Chennai, Tamilnadu, India. 3. <i>“Jewel of India Award-2010”</i> “conferred by Indian Solidarity Council, New Delhi for outstanding service in the promotion of Educational Excellence. 4. <i>“Rashtriya Vidya Gaurav Gold Medal Award-2010 & Certificate of Excellence”</i> conferred by International Institute of Education & Management, New Delhi for outstanding achievements and remarkable role in the field of Education. 5. Sri Lakshmi Ammaal Engineering College secured NAAC Accreditation with “A” Grade under my supervision on Jun 2013. 				
Service activities (within and outside of the institution)				
<ol style="list-style-type: none"> 1. Member in Board of Studies / School of Electrical Sciences, Bharath University from 2003 to 2009. 2. Academic Council Member in Bharath University from 2003 to 2013. 3. Academic Council member in IGNOU-Sri Krishna Community college, Padapai, Chennai- since July 2009. 4. Governing Council Member in Aakshya College of Engineering, Maduranthakam since August 2009. 5. Name has been included the 11th Edition of Marquis Who’s Who in Science and Engineering 2011-2012, USA. 6. Recognized research supervisor for Ph.D. program in the following Universities. 7. Bharath University, Chennai, Since May 2009. 8. St. Peter’s University, Chennai, since December 2009 9. Shri Jagdishprasad Jhabarmal Tibrewala University, Rajasthan, Since July 2010. 10. Sathyabama University, Chennai, Since July 2010. 				

List of Publications

1. M.Sundhararajan, C.Lakshmi & D.Malathi, "Performance Analysis Restoration filter for satellite Images" Publications of Research Journal of Computer Systems and Engineering- Vol.2, Issue-04- July-December-2011-pp 277-287.
2. E.Kanniga & M.Sundhararajan," Design of Numerically controlled oscillator for Neuro-feedback interface Machine" Publication of International Journal of Electronics and Communication Engineering – Vol. 5, No. 3 (2012). Pp. 245-255.
3. S.Kamatchi & M.Sundhararajan, "Optical Biosensor: A Review" Publication of International Journal of Photonics – Vol. 4. No.1 (2012). Pp 23-29.
4. Revati Shriram, Dr.M.Sundhararajan & Nivedita Daimiwal, "Brain Connectivity Analysis Methods for Better Understanding of Coupling" Publication of International Journal on Computer Science and Information Security- Vol.10, No.11 (2012). Pp 16-22.
5. Nivedita Daimiwal, Dr.M.Sundhararajan & Revati Shriram, "Applications of fMRI for Brain Mapping" Publication of International Journal on Computer Science and Information Security- Vol.10, No.11(2012). Pp 23-27.
6. E.Kanniga & M.Sundhararajan, "Point Operated Neuro Feedback Interface Machine using MEMES actuators", Publication of International Journal of Electronics communication and Computer Engineering- Vol.3. Issue 6, Nov-2012. Pp 1325-1328.
7. Nivedita Daimiwal, Dr.M.Sundhararajan & Revati Shriram, "Non Invasive FNIR and FMRI system for Brain Mapping" Publication of International Journal of Scientific and Research Publication- Vol.3, Issue 2. February 2013.
8. Revati Shriram, Dr.M.Sundhararajan & Nivedita Daimiwal, "Human Brain Mapping based on COLD signal Hemodynamic Response and Electrical Neuro- imaging" Publication of International Journal of Computer Application- Vol. 63- No.5. February 2013. Pp. 27-31.
9. Nivedita Daimiwal, Dr.M.Sundhararajan & Revati Shriram," Functional MRI study for Eye Blinking and Finger Tapping" Publication of IOSR journal of Electronics and Communication Engineering. Spl. Issue., Vol. 4 Pp 22-26.(2013)
10. E.Kanniga & M.Sundhararajan, "Design and Architecture of Bio signal Amplifier for signal extractor Neuro feedback Interference Machine", Published in International Journal for Advanced Research in Electrical, Electronics and Instrumentation Engineering, Vol. 2, Issue 3, March 2013 pp 792-799.
11. Revati Shriram, Dr.M.Sundhararajan & Nivedita Daimiwal,"EEG Based cognitive workload Assessment for Maximum Efficiency" Publication of IOSR journal of Electronics and Communication Engineering. Spl. Issue., Vol. 4 Pp 34-38.(2013)
12. E.Kanniga & M.Sundhararajan, "Kanembedded control of sub cyclic AC Chopper with high speed and Low switching Losses" Publication of Advanced Materials Research, Trans Tech Publications, Switzerland. Vol.717 (2013) pp 579-584. (**Scopus Indexed**)
13. R.Varatharajan, M.Sundhararajan, R.Sivakumar & G.Murugaboopathi, "Analysis of voltage to convert sense Amplifier for Low power SRAM" Publication of European Journal of Scientific Research, Vol. 102 .No.2. May 2013. Pp 227-234.
14. S.Sivaperumal & M.Sundhararajan," Brain Tumor Analysis for MRI Image segmentation Using Seeded Region Growing and PCNN", Publication of International Journal of

Electronics, Communication & Instrumentation Engineering Research and Development, Vol.3. Issue 2, Jun 2013. Pp 175-182.

15. E.Kanniga, K.Selvamarathnam & M.Sundhararajan, "Embedded Control using Mems sensor with Voice command and CCTV camera", Publication of Indian Journal of Science and Technology, Vol 6 (6s), June 2013, pp.4794-4796. **.(Ref. Jor-Anne-II)**
16. K.Muralibabu & M.Sundhararajan, "DCT based PAPR and ICI reduction using companding technique in MIMO-OFDM system", Publication of International Journal of Advanced Research in Computer Science and Software Engineering, Vol.3, Issue 8, August-2013. Pp. 49-53.
17. A.L.Escalin Tresa & M.Sundhararajan, "Video Compression using Discrete Wavelet Transform", Publication of i-manager's Journal on Digital Signal Processing, Vol.1, No.3, July-September 2013, pp. 1-7.
18. S.Sivaperumal & M.Sundhararajan," Advance Feature Extraction of MRI Brain Image and Detection Using Local Segmentation Method with Watershed", Publication of International Journal of Electrical and Electronics Engineering Research,vol.3, Issue. 4, October 2013, pp 87-94.
19. E.Kanniga, K.Selvamarathnam & M.Sundhararajan," Kandigital Bike Operating System" Publication on Middle-East Journal of Scientific Research 20 (6): 685-688, 2014. **.(Ref. Jor-Anne-II)**
20. K.Muralibabu & M.Sundhararajan, "An efficient PAPR reduction in OFDM system using DCT based subcarrier grouping with compounding Techniques" Published in eBook of Advanced Materials and Information Technology Processing by WITpress-2014, Hong kong. Pp-487-494. **.(Ref. Jor-Anne-II)**
21. K.Muralibabu & M.Sundhararajan," PAPR Performance important in OFDM system using DCT based on adjacent symbol grouping", Published in Applied Mechanics and Materials, Vol. 550(2014), pp 204-209. **.(Ref. Jor-Anne-II)**
22. E.Kanniga, S.M.K.Srikanth & M.Sundhararajan," Optimization Solution of Equal Dimension Boxes in Container Loading Problem using a Permutation Block Algorithm", Published in Indian Journal of Science and Technology, Vol. 7(S5), 22-26, June 2014. **.(Ref. Jor-Anne-II)**
23. L.Escalin Tresa & M.Sundhararajan," Quality Assessment of Video Compression Using Hybrid Algorithm", Published in i-manager's Journal on Digital Signal Processing, Vol. 2. No. 2. April-June 2014 pp. 16-20.
24. J.Deny & M.Sundhararajan,"Efficient Methods of Multimodel Biometric Security System-Fingerprint Authentication, Speech and Face Recognition" , Published in International Journal of Electrical and Electronics Research Vol.2, Issue 2, April-June 2014, PP 78-83.
25. L.Escalin Tresa & M.Sundhararajan," Video Compression using Hybrid DWT-DCT Algorithms", Published in International Journal of Emerging Technology and Advanced Engineering, Vol.4. Issue 7. July 2014. Pp. 918-922.
26. S.Kamatchi & M.Sundhararajan," Optimal Spectral Analysis for detection of sinusitis using Near Infrared Spectroscopy (NIRS)", Published in Indian Journal of Computer Science and Engineering, Vol.5. No.3. July 2014 pp. 126 – 134.
27. S.Tamil Selvan & M.Sundhararajan,"Power efficient 3VL memory cell design using Carbon

- Nanotube Field Effect Transistors”, Published in International Journal for Technological Research in Engineering, Vol.1. Issue.12. August 2014. Pp. 1499-1505.
28. J.Deny & M.Sundhararajan, “Survey of Texture Analysis Using Histogram in Image Processing”, published in International journal of Applied Engineering Research, Vol.9, No.26(2014)-spl.Issue. PP 8737-8739. **.(Ref. Jor-Anne-II)**
 29. E.Kanniga, G.Abirami Sri & M.Sundhararajan,” Implementation of a High Efficiency and Low Cost Converter with Analog MPPT Using Photovoltaic Water Pumping System for Agriculture”, Published in International Journal of Research in Electronics & Communication Technology Volume 2, Issue 6, November-December, 2014, pp. 12-17.
 30. J.Deny & M.Sundhararajan, “ Neural Networks and Machine Learning Techniques for Intrusion Detection System”, published in International journal of Digital Communication and Networks, Vol.2, Issue 1, Jan-2015, PP 5-8.
 31. D.Manoj Kumar & Dr.M.Sundhararajan, ”VLSI implementation of High speed and Low power Blowfish crypto Algorithm”, Published in International Journal of Applied Engineering Research, Vol. 10 No.4(2015).pp 9123-9127.**(Ref. Jor-Anne-II)**
 32. S.Tamilselvan & M.Sundhararajan,” Simulation and Analysis of 3 value logic 6T and 7T CNTFET based SRAM design using HSPICE” , Published in International Journal of review in Electronics & Communication Engineering, Vol. 3 .Issue-1 Feb 2015. Pp 1-5.
 33. D.Monoj Kumar & M.Sundhararajan,” VHDL Implementation Using Modified Blowfish Algorithm”, Published in International Journal of Digital Communication and Networks, Vol.2. Issue 2., Feb-2015.,pp-1-4.
 34. L.Escalin Tresa & Dr.M.Sundhararajan,” An Intelligent repeated objects tracking on Video Sequences”, Published in International Journal of Applied Engineering Research, Vol. 10 No.5(2015).pp 11803-11810.**(Ref. Jor-Anne-II)**
 35. Revati Shriram & Dr.M.Sundhararajan,” Coherence Analysis of Pressure Pulse and Photoplethysmogram at Various sites”, Published in International Journal of Applied Engineering Research, Vol. 10 No.6(2015).pp 14959-14968.**(Ref. Jor-Anne-II)**
 36. J.Deny & M.Sundhararajan,” Multi Modal Biometric Security for MANET Military Application-Face and Fingerprint”, Published in Journal of Computational and Theoretical Nanoscience, Vol. 12 pp 1-5, 2015.
 37. Nivedita Daimiwal, Dr.M.Sundhararajan & Revati Shriram,” NIRS Based PPG Sensor For Detection of Oxy –Hb and Deoxy-Hb Change During Activity”, Published in International Journal of Applied Engineering Research, Vol. 10 No.7(2015).pp 17347-17356.**(Ref. Jor-Anne-II).**
 38. S.Arul Selvi & M.Sundhararajan,” A Combined Framework for Routing and Channel Allocation for Dynamic Spectrum Sharing using Cognitive Radio”, Published in International Journal of Applied Engineering Research, Vol. 11 No.7(2016).pp 4951--4953.**(Ref. Jor-Anne-II).**
 39. M.Sundhararajan & R Kousalyadevi, ”Improvement Of VLC Data Transmission System Using OWC System Under Influence Of FLI”, Published in International Journal of Engineering Inventions, Vol.5, Issue.3,(Feb 2016). Pp 06-15.
 40. D.Monoj Kumar & M.Sundhararajan,” Improve high-performance by using of Blowfish cryptographic algorithm on single-chip cloud computer”, Published in Indian Journal of

Science & Technology, Vol.9, Issue.19.May-2016. .(Ref. Jor-Anne-II).

41. J.Deny & M.Sundararajan,” Performance assessment and comparisons of single and group mobility in manet”, Published in Indian Journal of Science & Technology, Vol.9, Issue.21.June-2016.pp.1-8 .(Ref. Jor-Anne-II).
42. Revati Shriram, Supriya Shete, Dr.M.Sundararajan & Nivedita Daimiwal,” Statistical features based comparison of analysis and synthesis of normal and epileptic electroencephalogram for various wavelets,” Published in Turkish Journal of Electrical Engineering and Computer Sciences · June 2016. .(Ref. Jor-Anne-II).
43. S.Arul Selvi & M.Sundararajan,”SVM based Two Level Authentication for Primary user Emulation Attack Detection”, Published in Indian Journal of Science & Technology, Vol.9, Issue.29.August-2016.pp. 1-8 .(Ref. Jor-Anne-II).
44. S.Kamatchi & M.Sundararajan,” Analysis of moisture content of the sample under study using NIRS “, Published in International Journal of Pharmacy and Technology,Vol.8, Issue.3,Sep-2016, pp.18505-18513. .(Ref. Jor-Anne-II).
45. Nivedita Daimiwal, Dr. Betty Martin, Dr.M.Sundararajan & Revati Shriram,” Analysis of radio frequency reflectance type PPG sensor based on systolic amplitude and source wavelength.”, Published in Biomedical Research- An International Journal of Medical Sciences”, Spl.Issue-2016, pp.S371-S375. (Ref. Jor-Anne-I).
46. Revati Shriram, Dr. Betty Martin, Dr.M.Sundararajan & Nivedita Daimiwal’,” Effect of source wavelength on second derivative of finger photoplethysmogram in healthy young female volunteers.” Published in Biomedical Research- An International Journal of Medical Sciences”, Spl.Issue-2016, pp.S454-S459. (Ref. Jor-Anne-I).

Recent professional development activities

1. M.Sundararajan & C.Lakshmi “Effectiveness of Intensity Quantization Error in Image Processing”, Proceedings of the International Conference on Trends in Industrial Measurement and Automation, Anna University, Chennai, Tamilnadu, India . August 17-19, 2001. pp.6.17–6.26.
2. M.Sundararajan ,“ Correlative study of EEG and PPG signals in Wavelet Analysis Using Optical Sensor”, Proceedings of the International Conference on Trends in Industrial Measurement and Automation, CSIR Madras Complex, Taramani, Chennai, Tamilnadu, India, December 16-18 2004 pp. 109 – 112.
3. M.Sundararajan, C.Lakshmi & Dr.M.Ponnaivaikko, “ Human Face Recognition based Biometric Security using Wavelet Analysis”, Proceedings of the International Conference on Information Security-2005, Pondicherry engineering College, Pondicherry, India, December 7 – 9 , 2005 pp. 140-143.
4. M.Sundararajan, Dr.M.Mukundarao, R.Siddarth & M.Ramnaram, “Detection and Analysis of Low Frequency rhythms in the Human body during sleep and wakeful states proceedings of the International Conference on Optics & Optoelectronics-2005, IRDE, Dehradun, India, December 12-15 2005 .

5. M.Sundararajan, "Biosensor" selected for poster presentation of the International Conference on Photonics, An SPIE Europe Event, Strasbourg, France, 3 – 7 April 2006.
6. M.Sundararajan, C.Lakshmi & Dr.M.Ponnaivaikko, "Improved Kernel Common Vector Method for Face Recognition", Proceeding of 2nd IEEE International Conference on Machine Vision-2009, Dubai, UAE, December 28-30, pp. 13-17, 2009 and Published in IEEE Explorer.
7. M.Sundararajan, C.Lakshmi & P.Manikandan, "Hierarchical Approach of Discriminative Common Vectors for Bio Metric Security", Proceeding of 2nd IEEE International Conference on Computer and Automation Engineering-2010, Singapore, February 26-28, 2010.vol 2 pp. 784-790.
8. M.Sundararajan, C.Lakshmi & Dr.M.Ponnaivaikko, "Improved kernel common vector method for face recognition varying in background conditions", proceeding of 2nd IEEE International Symposium ComplIMAGE'10, Buffalo, Nayagara, USA, May 5-7, 2010-pp.175-186 (2010).
9. M.Sundararajan & E.Kanniga," Modeling and Characterization of DCO using Pass Transistor", proceeding of International Conference on Electrical and Electronics Engineering- ICEEE2010, Wuhan, China, December 04-05, 2010.pp 106-107.
10. E.Kanniga & M.Sundararajan, " Brain Machine Interface", Proceeding of International Conference on Mathematics & Computer Science- ICMCS 2011, Loyola College, Chennai, January 7-8, 2011.
11. M.Sunrararajan, Dr.A.Arunagiri & Eng. Suresh Kalidas, " Load flow analysis of an interconnected power system using BPN neural network", Proceeding of International Conference on New paradigms in Electronics & Information Technologies-PEIT'011, Yanbu Industrial College, Alexandria, Egypt, October, 09-12, 2011.
12. E.Kanniga & M.Sundararajan," Modeling and simulation environment of numerically Controlled oscillator for RF Transceiver", Proceeding of International Conference on Mathematics in Engineering & Business Management,-ICMEB 2012, Stella Maris College, Chennai, March, 09-10,2012.
13. L.Escalin Tresa & M.Sundararajan," Wavelet transform video compression using Absolute Moment Block Truncation Coding", Proceeding of International Conference on Computer network and information technology, IISRO,2013
14. Revati Shriram, Dr.M.Sundhararajan & Nivedita Daimiwal," Wave Transit Time based Cuff less Long Term Continuous Blood Pressure Measurement", Proceeding of International Conference on recent trends in Engineering Sciences- ICRTES 13,Nasik, Maharashtra, November 23-24, 2013.
15. Revati Shiram, Dr.M.Sundhararajan & Nivedita Daimiwal, "Effect of Change in Intensity

of Infrared LED on Photoplethysmogram”, Proceeding of IEEE International Conference on Communication & Signal Processing (ICCSP), Mellmaruvathur, Chennai, April 3-4, 2014. Pp: 1064-1067.

16. Nivedita Daimiwal, Dr.M.Sundararajan & Revathi Shriram, “Respiratory rate, heart rate and continuous measurement of BP using PPG”, Proceeding of IEEE International Conference on Communication & Signal Processing (ICCSP), Mellmaruvathur, Chennai, April 3-4, 2014. Pp: 999-1002.
17. Nivedita Daimiwal, Dr.M.Sundararajan & Revathi Shriram, “Comparative analysis of LDR and OPT 101 detectors in reflectance type PPG sensor”, Proceeding of IEEE International Conference on Communication & Signal Processing (ICCSP), Mellmaruvathur, Chennai, April 3-4, 2014. Pp: 1078-1081.
18. Revathi Shriram, Dr.M.Sundararajan & Daimiwal Nivedita,” Application of High & Low brightness LEDs to human tissue to capture Photoplethysmogram at finger tip”, Proceeding of IEEE International Conference for Convergence of Technology, Pune, India April 6-8. 2014. Pp-1-5.
19. L.Escalin Tresa & M.Sundararajan, “Comparative Analysis of Different Wavelets in DWT for Video Compression”, Proceeding of International Conference on Circuit, Power and Computing Technologies [ICCPCT], Noorul Islam University,IEEE-2014.
20. J.Deny & M.Sundararajan, ”Intrusion Detection System in Mobile AdHoc Networks Using Dumpster-Shafer Theory”, Proceeding of 11th International Conference on Science, Engineering & Technology, VIT University, Vellore, India November 3-4, 2015.
21. J.Deny & M.Sundararajan,” Multi Model Biometric Security in Mobile Adhoc Networks and its Applications”, Proceeding of International Conference on Emerging Novelties and Vistas in Space Technologies & Applications-2015, Sathyabama University, Chennai December 3-5, 2015.