

Research and Development

Ongoing Funded Projects

S.No	Project Title	Funded Agency	Year	Cost	Investigator and Co-Investigator Details
1.	A safe and enhanced navigation system for visually challenged	IEEE	2016-17	500USD	Dr.V.Nandalal G.Saranya
2.	Wireless Health monitoring system	DST	2016-17	Rs.1,00,000	G.Saranya C.Senthamilarasi
3.	Soil nutrient sensing Robot for Precision Agriculture	UGC-minor	2016-17	Rs.2,00,000	Ms.N.Kalaivani

Completed Funded Projects

S.No	Project Title	Funded Agency	Year	Cost	Investigator and Co-Investigator Details
1.	Sevillakavi	DST	2014-15	Rs.1,05,000	Dr.S.Sophia

Publication Details

S.No.	Paper Title	Author Details	Name of the Journal	Volume and Page Number	Year of Publishing
1.	Evaluation of clustering parameters in WSN fields using distributed zone-based approach	BoselinPrabhu, SR & Sophia, S	ASTM Journal of Testing and Evaluation	vol. 43, no. 06, pp. 01-13	2015
2.	Issues in environmental pollution monitoring using distributed wireless sensor network	S. Sophia, Nandalal, V. and, Akhaliya	Pollution Research	vol. 34, no. 1, pp. 51-57	2015
3.	Spectrum Sensing and	S. Sophia , P.D Rathika and P.Arunprasath	International Journal of	Volume 10, No.70 pp.355-	2015

	noise classification in cognitive radio network using FLOS		Applied Engineering research	362	
4.	Cooperative Spectrum Sensing for cognitive radio network –A Study	S. Sophia , P.D Rathika and V.P.Ajay ,	International Journal of Applied Engineering research	Volume 10, No.67 pp.72-77	2015
5.	Traffic Decongestion in Toll Plaza using Electronic Toll Collection	Rajkumar R, BoselinPrabhu SR, Sophia S	Australian Journal of Basic and Applied Sciences	Volume 9, No. 36, pp. 171-176	2015
6.	Performance Improvement of Distributed Island Multicasting with Overlay Data Distribution	Kalaivani P, Sathya G, Nikitha S Paulin, BoselinPrabhu SR, Sophia S	Australian Journal of Basic and Applied Sciences	Volume 9, No. 36, pp. 221-228	2015
7.	Effective clustering mechanism when both the sensor nodes and base station are mobile	BoselinPrabhu S.R. and Sophia S.,	ARNP Journal of Engineering and Applied Sciences	Volume 11, No. 5, pp. 3095-3101	2015
8.	The Impact of Clustering Mechanism in Dense Wireless Sensor Network	BoselinPrabhu S.R. and Sophia S	Scholars Journal of Engineering and Technology		2016
9.	A methodology for reducing utilization in dense wireless sensor networks	BoselinPrabhu S.R. and Sophia S.,	International Journal of Research – Granthaalayah		2016
10.	Efficient Method of Secondary Users Selection Using Dynamic Priority Scheduling	Sasikumar.J.T , Rathika.P.D , Sophia.S,	International Journal of Advanced Research in Biology Engineering Science and Technology	Vol. 2, Special Issue 10	
11.	Nodes Routing mechanism for MANET in adversarial environment	BoselinPrabhu S.R. and Sophia S.,	International journal of Emerging Technology and Innovative	vol2,Issue 1	2016

			Engineering		
12.	Distributed clustering using Enhanced Hierarchical methodology for Dense WSN networks	BoselinPrabhu S.R. and Sophia S.,	the International Journal of Applied engineering Research	vol 10,No.6, pg- 15581-90	2015
13.	Performance Evaluation and stability Analysis of SRAM cells	Kowsalya.M, Dr.H.Mangalam	International Journal of Innovative Research in science, Engineering and Technology	vol 5, Issue 4	2016
14.	Design of add multiply operator using sum to modified booth algorithm for signed and unsigned bits	M.Hariharan, Dr.H.Mangalam	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
15.	Performance analysis of overloadedCDMA system under imperfect synchronization using Parallel / Successive Interference Cancellation	Sasipriya .S and Ravichandran .C.S	Telecommunica tion Systems Journal (SPRINGER)		2013
16.	Performance Comparison of Unscrambled and Scrambled CDMA System Using Gold codes and PN sequence	Krishnakumar .M, Karthikeyan .M and Sasipriya .S	The International Journal of Computer Science & Applications	Vol. 1, No. 12, pp. 1-10.	2013
17.	A Hybrid Interference Technique forOverloaded CDMA with Timing Offset Error	Sasipriya .S and Ravichandran .C.S	International Journal of Electronics and Communication s		2012
18.	Performance Analysis of SelectiveWeighted Linear Parallel Interfeernce Cancellation	Sasipriya .S and Ravichandran .C.S	ARPJ Journal of Engineering and Applied Sciences	Vol.7, No.4, pp. 453-460	2012

	Scheme for MC-CDMA System				
19.	MMSE Receiver for Overloaded CDMA system	Sasipriya .S and Ravichandran .C.S	European Journal of Scientific Research	Vol.51, Issue 4, pp. 542-548	2011
20.	A Novel Technique to Increase the Capacity of CDMA System	Sasipriya .S and Ravichandran .C.S	International Journal of Engineering, Science and Technology (IJEST)	Vol. 2, No. 5, pp. 349-356.	2010
21.	A Time Domain CFO Compensation and Frequency Domain LPIC in the Uplink of an OFDMA Systems	Sasipriya .S and Ravichandran .C.S	Far East Journal of Electronics and Communication (FEJEC)	Vol 4(1), pp. 25-39	2010
22.	SIR Analysis of Overloaded CDMA System Using Orthogonal Gold Codes	Sasipriya .S and Ravichandran .C.S	International Journal of Recent Trends in Engineering and Technology (IJRTET),	Vol 4(1), pp. 50-54	2010
23.	Performance Analysis Of Overloaded CDMA System Using A Two Stage Weighted LPIC	Sasipriya .S and Ravichandran .C.S	International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences (IJ-ETA-ETS)	Vol. 3, Issue 1, pp. 419-425	2010
24.	A Survey of Multiuser Detectors for CDMA/ OCDMA Systems	Sasipriya .S and Ravichandran .C.S	CiiT International Journal of Wireless Communication	pp. 349-356	2010
25.	Parallel Interference Cancellation Scheme for DS/CDMA Detectors in Rayleigh Fading Link	Sasipriya .S and Ravichandran .C.S	Journal of Technological World	pp. 157 – 160.	2009
26.	Score level fusion of multiple	P.Esther Rani	ARPJ Journal of Engineering and applied	vol.10, no.14 pp.586-74	2015

	features for efficient personal identification		sciences		
27.	Multimodal Biometric System Based on Palmprint and Finger Knuckle Print Recognition Methods	P.Esther Rani	International Arab Journal of Information Technology	vol.12, no.2. pp 118-28	2015
28.	Multimodal Biometric System using Score Level Fusion of Palmprint and Finger Knuckle Print	P.Esther Rani	International Journal of Advanced Research in Computer Science	vol.5, no.6. pp.182-187.	2014
29.	Personal identification system based on palmprint	P.Esther Rani	Journal of Applied Sciences	vol.14, no.18, pp.2032-2039	
30.	Finger Knuckle Print recognition Techniques- A Survey	P.Esther Rani	The International Journal of Engineering and Science	vol. 2, N0.1, pp 62-69	2013
31.	An Efficient Palmprint Recognition System Based on Extensive Feature Sets	P.Esther Rani	European Journal of Scientific Research	vol.71 No.4 2012, pp. 520-537.	
32.	An Efficient Algorithm For Palmprint Based Personal Authentication System with rotation invariant feature vectors	P.Esther Rani	CiiT international journal of Digital Image Processing	vol.3, no.1, pp1-5.	2011
33.	An Efficient Algorithm for Human Identification Based on Fingerprint Biometrics	P.Esther Rani	CiiT International Journal of Digital Image Processing	vol 4, No6,	2012.
34.	BER and PAPR reduction of OFDM using	Sivappuraja, Dr.V.Nandalal	International journal Advanced	vol 3, Issue 1	2016

	new companding techniques		Research trends in Engineering and Technology		
35.	Design of an efficient adaptive fir filter by distributed arithmetic	V.R.Balaji,A.ThangaMonikha	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
36.	Implementation of an adaptive fir filter using high speed distributed arithmetic	V.R.Balaji,A.ThangaMonikha	International Journal of Advanced Research in Biology Engineering science and Technology	vol2, Issue 10	2016
37.	Analysis on implementation of lifting scheme in DWT architecture for efficient memory	Ashok.P, C.Thirumaraiselvi	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
38.	Analysis of DWT architecture for efficient memory using lifting scheme	Ashok.P, C.Thirumaraiselvi,	International Journal of Advanced Research in Biology Engineering science and Technology	vol2, Issue 10	2016
39.	Fixed valued impulse noise removal using iterative adaptive Fuzzy Filter	Aishwaryaa Rani , N.Kalaivani	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
40.	Design and analysis of an efficient multiplier with image multiplication	Saravanan.R, Ms.J.Sathiyapriya	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
41.	FPGA implementation of noise removal using sigma filter	K.AishwaryaDas, D.Devi	SouthAsian Journal of Engineering and Technology	vol 2, No 21 pg- 120-133	2016
42.	FPGA implementation of modified bilateral filter for	K.AishwaryaDas, D.Devi	International Journal of Advanced Research trends in Engineering	vol 3, Issue 1	2016

	gaussiannoise removal		and Technology		
43.	FPGA architecture for the implementation on polynomial matrix multiplication	R.DhanaPriya. D.Devi,	SouthAsian Journal of Engineering and Technology	vol 2,No-18, Pg-198-210	2016
44.	Cluster tree data collection for wireless sensor networks	R.Divya,V.Karthik	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
45.	Cluster tree data gathering for large scale wireless sensor networks	R.Divya,V.Karthik	International Journal of Advanced Research in Biology Engineering science and Technology	,vol2, Issue 10	2016
46.	Advanced scheme for topology control with connectivity learning in wireless sensor network	R.SarathKumar, Radhu N.S., Gopika.S.Nair,	International Journal of Advanced Research in Biology Engineering Science and Technology	Vol. 2, Special Issue 10	2016
47.	Wireless sensor network using energy efficient topology control technique with connectivity learning	R.SarathKumar, Radhu N.S., Gopika.S.Nair,	Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
48.	Control structure for single phase automatic power generation with suport solar energy	K.Periyasamy, N.Sathish	International Journal of Advanced research trends in Engineering an Technology	vol3, Issue:1	2016
49.	Covert communication of secret images using reversible color transformations	VijayKrishna.S.A, D.V.Soundari,	SouthAsian Journal of Engineering and Technology	vol 2,No-21, Pg-176-183	2016
50.	Covert communication of secret images	VijayKrishna.S.A, D.V.Soundari,	International Journal of Advanced	vol3, Issue:1	2016

	using color transformation and 2d DWT		research trends in Engineering an Technology		
51.	A Comprehensive analysis of an activity based non-invasive assessment of bloodflow level using Impedance Plethysmography	M.Ramkumar,K.SakthiPraneetha	SouthAsian Journal of Engineering and Technology	vol 2,No-21, Pg-104-119	2016
52.	Activity based non-invasive assessment of bloodflow level in healthy volunteers using Impedance Plethysmography	M.Ramkumar,K.SakthiPraneetha	International Journal of Advanced research trends in Engineering an Technology	vol3, Issue:1	2016
53.	Design of variable latency reliable multiplier for adaptive filters	S.Nikilla,S.Rajalakhshmi,	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
54.	Real time Health monitoring system using arduino	S.Nikilla,S.Rajalakhshmi,	SouthAsian Journal of Engineering and Technology	vol 2,No-21	2016
55.	Multibiometrics by combining left and right palm print images using SIFT features	Aishwarya.V, V.V.DeviPriyanka	SouthAsian Journal of Engineering and Technology	vol 2,No-18 Pg-186-197	2016
56.	Palm print recognition by combining left and right palm print images for person authentication using radon transform	Aishwarya.V, V.V.DeviPriyanka	International Journal of Advanced research trends in Engineering an Technology	vol3, Issue:1	2016
57.	Enhanced throughput for Cognitive Radio networks using priority based	B.Aysha Begum, B.Nathiya	International Journal of Advanced research trends in Engineering	vol3, Issue:1	2016

	scheduling with Backoff algorithm		an Technology		
58.	Multi Fault detection and correction using Error correction codes and Parseval checks	S.Ranjani,M.Monika,	International Journal of Innovative Research in science, Engineering and Technology	vol5, Issue 4	2016
59.	Area and delay optimization of binary common sub expression elimination constant multiplier	C.Bagavathi, Viju.R.J	International Journal of Advanced Research in Biology Engineering science and Technology	vol2, Issue 10	2016
60.	Efficiency of constant multiplier in reconfigurable RRC filter	C.Bagavathi, Viju.R.J	International Journal of Advanced Research trends in Engineering and Technology	vol 3, Issue 1	2016
61.	Delay and area optimization using constant multiplier	C.Bagavathi, Viju.R.J	SouthAsian Journal of Engineering and Technology	vol 2,No-18	2016
62.	Performance evaluation of Genetic algorithm on scheduling systolic processor	C.Bagavathi	International journal of advanced research in electronics and communication Engineering	Vol 4,Issue 12	2015
63.	Reconstruction of artifact image using Tvs-Pocs method	L.Nithya, G.Saranya,	SouthAsian Journal of Engineering and Technology	vol 2, No 21, pg- 155-166	2016
64.	Classification of benign and malignant cancer based on microcalcification	L.Nithya, G.Saranya,	International Journal of Advanced Research trends in Engineering and Technology	Vol 3, Issue 1	2016
65.	Removal of different types of artifacts and impulse noise in gray scale images	Suresh kumar and Dr.H.Mangalam	Journal of Theoretical and Applied Information Technology	vol.69, no.2, pp.305-317	2014
66.	Multilevel spatial multiplexing –	K.Kavitha, H.Mangalam	International journal of Engineering	vol 6,No 1	2014

	space Time trellis coded modulation system for fast fading MIMO channel		and Technology		
67.	PAPR reduction of OFDM signal via custom conic optimized iterative adaptive clipping and filtering	Nandalal, V. and S. Sophia	International Journal of Wireless and personal communications	Volume 76, No.2	2014
68.	GPU Acceleration Using CUDA Framework	Pratul P Nambiar, V.Saveetha, S.Sophia, V.AnushaSowbarnika	International Journal of Innovative Research in Computer and Communication Engineering	Vol. 2, Special Issue 3	2014
69.	A Review of Efficient Information delivery and clustering for Drip irrigation Management using WSN	S. Sophia and S.R.BoselinPrabhu	International Journal of Computer science and Business Informatics	vol .14,no.3	2014
70.	Peak Power Reduction Through standard Optimized Sigma Clipping and Filtering	Nandalal V	Research Journal of Applied sciences , Engineering and Technology		2014
71.	An Efficient Approach For Squared Crest Factor Reduction In OFDM Systems Using Tone Reservation With Customized Convex Optimization	Nandalal V	International Journal of Research in Engineering and Technology	Vol.03,Issue.7 , pp.474- 478	2014
72.	Peak Power Reduction Through Conic Optimized Sigma Clipping and Filtering	Nandalal V	Applied Mechanics and Materials, Mechanical and Power Research	vol. 550, pp. 220-227	2014

73.	An Area Efficient and High Throughput Multi-Rate Quasi-Cyclic LDPC Decoder for IEEE 802.11n Applications	Michaelraj Kingston Roberts	Microelectronics Journal	vol.45, no.11, pp. 1489-1498	2014
74.	A Modified Optimally Quantized Offset Min-Sum Decoding Algorithm for Low Complexity LDPC Decoder	Michaelraj Kingston Roberts	Wireless Personal Communications		2014
75.	An improved low complex Sum-Product decoding algorithm for Low-Density Parity-Check codes	Michaelraj Kingston Roberts	Journal of Zhejiang University Science- C (Computers & Electronics) (Springer)		2014
76.	A Power and Area Efficient Multi-Rate Quasi-Cyclic LDPC Decoder	Michaelraj Kingston Roberts	Journal of Circuits, Systems and Signal Processing (Springer)		2014
77.	An Improved Low Complex Hybrid Weighted Bit-Flipping Algorithm for LDPC Codes	Michaelraj Kingston Roberts	Wireless Personal Communications (Springer)		2014
78.					
79.	A Modified Normalized Min-Sum Algorithm for Irregular LDPC codes	Michaelraj Kingston Roberts	International Journal of Engineering and Technology	vol.5, no.6, pp. 4881-4893	2014
80.	Performance Analysis of Steepest Descent Decoding Algorithm for LDPC Codes	Michaelraj Kingston Roberts	International Journal on Recent Trends in Engineering & Technology	vol. 4, no 2, pp. 112-117.	2014

81.	Design of Various PFD and Charge-Pump Architectures for a PLL- a Survey	Dr.H.Mangalam, N.K AnushKannan	CiiTInternational Journal of Digital Signal Processing		2013
82.	A low power multiplier using encoding and bypassing technique	Prabhu. E, Dr.Mangalam.H, S.Karthick	Journal of theoretical and Applied Information Technology	vol. 57, no.2	2013
83.	Radar based Vehicle Collision Avoidance System used in Four Wheeler Automobile Segments	R.Sivakumar and H.Mangalam	International Journal of Scientific and Engineering Research	Vol. 5, no.1	2014
84.	An Efficient power reduction technique in orthogonal frequency division multiplexing system using tone reservation	Nandalal, V. and S. Sophia	Journal of Computer Science	Volume 9, Issue 9	2013
85.	Capacity based clustering model for Dense wireless sensor networks	S. Sophia and S.R.BoselinPrabhu	International Journal of Computer science and Business Informatics	vol.5,No.1,pp 1-10	2013
86.	An Integrated distributed clusteruing Algorithm for Large scale WSN	S. Sophia and S.R.BoselinPrabhu,	International Journal of Computer science and Business Informatics	vol.8,No.1,pp 1-12	2013
87.	Hierarchial Distributed Clustering Algorithm for Energy efficient Wireless Sensor Networks	S. Sophia and S.R.BoselinPrabhu	International Journal of Research in Information and Technology	vol.1,No 12, pp 45-55	2013
88.	Real-world Applications of Distributed Clustering Mechanism in Dense Wireless	S. Sophia and S.R.BoselinPrabhu	International Journal of Computing Communication s and Networking	vol2,No 4,pp99-105	2013

	Sensor Networks				
89.	Clustering On Gpu – A Brief Survey	V.Saveetha, S.Sophia, V.AnushaSowbarnika	Research Journal of Computer Systems Engineering	Vol 04, pp.595-599	2013
90.	A Novel Speech Enhancement Approach Based On Modified DCT and Improved Pitch Synchronous Analysis	Balaji, VR & Subramanian, S	American Journal of Applied Sciences (Science Pub),	vol. 11, no. 1, pp. 24-37	2014
91.	A Discrete Fractional Cosine Transform Based Speech Enhancement System through Adaptive Kalman Filter Combined With Perceptual Weighting Filter with Pitch Synchronous Analysis	Balaji, VR & Subramanian, S	International Review on Computers and Software	vol.8, no.9, pp.2288-2295	2013
92.	A Hybrid Transformation and Filtering Approach For Speech Enhancement with Time Domain Pitch Synchronous Overlap-Add	Balaji, VR & Subramanian, S	Research Journal of Applied Sciences, Engineering and Technology	vol.8,no.3,pp. 321-330	2014
93.	An Efficient power reduction technique in orthogonal frequency division multiplexing system using tone reservation	Nandalal, V. and S. Sophia	Journal of Computer Science	Volume 9, Issue 9, PP. 1156-1163	2013
94.	Anonymous location aided routing in suspicious	R. Jennie Bharathi	, International Journal of Innovative Research in		2014

	manets		Computer and Communication Engineering		
95.	Flame and Fire Boundary Tracking using self adaptive technique	Kasyap MPS, P. LalithaVaishnavi	Internatinal Journal of Emerging technology and Advanced Engineering	vol. 4, no. 3	2014
96.	Region based Scheduling with multiple mobile robots for data collection strategies in WSN	V. Karthik	International Journal of Innovative Research in Science, Engineering and Technology	Vol. 2, Issue 7, pp.3416-3425	2013
97.	Evaluation of neutrosophic set approach filtering technique for image denoising	J. Mohan, A.P. Thilaga Shri Chandra, V. Krishnaveni, YanhuiGuo	International Journal of Multimedia and its applications	vol. 4, no.4, pp. 73-81	2012
98.	Blind source separation using Wavelets	Wims Magdalene Mary	International Journal on Imaging Sciences and Engineering		2012
99.	Topology Control in Wireless Networks Based on Clustering Scheme	Wims Magdalene Mary	International Journal of Wireless Communication and Networking		2012
100.	Performance analysis of Static Power reduction techniques in nanometric 6T SRAM cell design	V.Kavitha, R. Udaiyakumar, K. Sankaranarayanan,	Bonfring International Journal of Power Systems and Integrated Circuits	Vol. 2, Special Issue 1, Part 3	2012
101.	Compact Microstrip Fed Dual Band Printed Rectangular Patch Antenna For WLAN/Wimax	M.Ramkumar, S.Pradhap , S.Navin	International Journal of Innovative Research in Science, Engineering and Technology	Vol. 2, Issue 2, p.p-472-478.	2013
102.	Parallel and successive interference cancellation in a digital front end	S. Sophia and M.Madheswaran	Journal of Advanced Engineering Informatics	Vol. 32,2024-2028	2011

	of SDR receiver				
103.	A Survey of Adaptive Distributed Clustering Algorithms for Wireless Sensor Networks	S. Sophia and S.R.BoselinPrabhu	International Journal of Computer Science & Engineering Survey	Vol.2, No.4,pp.165-175	2011
104.	C-ProeqAlgorith for Subcarrier allocation for Wimax	V. Pradeep Sundar, M. Arun	Global Journal of researches in Engineering Numerical methods	Vol. 11, No. 7, pp. 1-5	2011
105.	An Overview of Visual Cryptography	Dr.S.Chandramathi	International Journal of Computational Intelligence Techniques	Volume 1, Issue 1, and PP-32-37	2010
106.	Parallel and successive interference cancellation in a digital front end of SDR receiver	Dr.S.Sophia	Journal of Advanced Engineering Informatics	Vol.32,2024-2028	2011