



Dr. T Satya Savithri

Ph.D

Professor

FIEL,FIETE,MIAE,MIEEE, MISTE

Electronics & Communication Engineering

Areas of Interest:

Digital Image processing, VLSI Design, Antenna design, Satellite communications, Robotics, channel and propagation models.

Publications:Â Total: 140,

Inter National Journals : 75, National Journals -4; Inter National Conferences - 52, National Conference -9

H-index -15

Patents filed: 2

Number of Ph.D awarded under guidance: 14

-> Educational & Professional

-> Academic Qualifications

-> Ph.D in Digital Image Restoration Techniques, JNTU (2002-2006)

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M.E in Microwave and Radar Engineering, Osmania University with First (1995-1997)

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B.Tech in Electronics and Communication Engineering, NIT Warangal (REC) with First Class with Distinction (1988-1992)

-> Professional Experience

-> Industrial Experience

-> R & D Engineer, (1992 - 1994)

-> Teaching Experience

-> Lecturer, KSRM Engineering College, SV University (1997-10-01 - 1999-11-27)

-> At JNTUH

-> Professor, JNTUH College of Engineering, JNTUH (1999 - Till Date)

-> Research

-> Research Projects

-> *Development of SoC system with Vision based UAV and Remote Mobile Robotic Arm for precision Agriculture*, funded by Under C2S programme-Meity, Ministry of Electronics and Information Technology - 85-12 lacs (sanctioned in 2023 duration of 5 years)

-> *Reconfigurable SoC based Design for High Speed Data Acquisition System*, funded by TEQIP - 2,95,000 (2019 - 2021)

-> *MODROPS-VLSI & ECAD Laboratory*, funded by AICTE - 10.42 lacs (2017 - 2019)

-> *Design and Development of CAD system to Detect Nodule in Chest Radiographs*, funded by AICTE - Rs. 1058824/- (2017 - 2020)

-> Patents

-> T.Satya Sa, *VLSI Architecture for Robot Navigation in Semi Structured Indoor Environment*, Intellectual Property, India, 2016

-> T.Satya Sa, *Depth Estimation of Non-Rigid Shapes Based on Fibonacci Population Degeneration Particle Swarm optimization*, Intellectual Property, India, 2018

-> Publications

- > Dharmavaram Asha Devi, Tirumala Satya Savithri, sai Sugun L, *Satellite Tracking Data Acquisition System using Reconfigurable SoC*, Journal of Xi'an University of Architecture & Technology , ISBN No.ISSN No:1006-7930, Vol No.XII, Issue No.III, pp.4471-4475, Xi'an University, 2020
- > B Sridevi, P Chandra Sekhar, B.K.Madhavi, T. Satya Savithri, *FDTD modelling for Crosstalk Reduction in Coupled RLC Interconnects with Active Shielding*, International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISBN No.ISSN:2278-3075, Vol No.83, Issue No.11, pp.1038-1042, Blue Eyes Intelligence Engineering & Science publications, September, 2019
- > B. Sridevi, P. Chandra Sekhar, V.R.Kumar, T. Satya Savithri, *FDTD Modeling with Passive Shielding for Crosstalk Reduction in Coupled RLC Interconnects*, International Journal of Recent Technology and Engineering , ISBN No.ISSN:2277-3878, Vol No.8, Issue No.3, pp.4965-4970, Blue Eyes Intelligence Engineering & Science publications, September, 2019
- > K.P.Chandar, Satya Savithri T , *Face depth estimation using Differential Evolution and Iterative Soft Thresholding Algorithm*, Recent Advances in Computer Science. INASE, pp.308-313, 2015
- > A. Bhuvaneswari, T. Satya Savithri, Hema latha, *Path Loss Prediction Analysis by Ray Tracing Approach for NLOS Indoor Propagation*, Signal Processing And Communication Engineering Systems (SPACES, pp.486-491, IEEE, 2 & 3 January, 2015
- > Talla Vamshi , Satya Savithri T , *An NoC architecture for real time SoC applications with modified CDMA scheme*, International Journal of VLSI and Embedded Systems-IJVES, ISBN No.ISSN: 2249-6556, Vol No.5, Issue No.Article 05341, May, 2014
- > S.Javeed Hussain, Satya Savithri T , *A Dynamic algorithm to Isolate Non-Cerebral Tissues of Brain MR Images*, International Journal of Emerging Technologies in Computational and Applied Sciences IJETCAS, ISBN No.ISSN (Print): 2279-0047 ISSN (Online): 2279-0055, Vol No.3, Issue No.No. 14-794, pp.250-253, November, 2014
- > S.Javeed Hussain, Satya Savithri T , *A Dynamic algorithm to Isolate Non-Cerebral Tissues of Brain MR Images*, International Journal of Emerging Technologies in Computational and Applied Sciences IJETCAS,, ISBN No.ISSN (Print): 2279-0047 ISSN (Online): 2279-0055, Vol No.3, Issue No.No. 14-794, pp.250-253, November, 2014
- > K. P. Chandar , Satya Savithri T , *Pose invariant face recognition using dt-cwt partitioning and kpca*, Global Journal Of Computer Science And Technology, Vol No.14, Issue No.5, 2014
- > K.Rajendra Prasad, M.Srinivasan, **T. Satya Savithri**, *Robust fading channel estimation under parameter and process noise uncertainty with risk sensitive filter and its comparison with CRLB*, WSEAS Transactions on Communications, ISBN No.ISSN:22242564, Vol No.13, pp.363-371, citations-2, 2014
- > D.Hari Krishna, I A Pasha, **T. Satya Savithri**, *Brain Computer Interface for mobility-a case study with ALS patient*, International Journal of Applied Engineering Research (IJAER), Vol No.9, Issue No.24, pp.26055-26070, 2014
- > D Karunakar Reddy, Satya Savithri T , *Area Efficient Rapid Signal Acquisition Scheme for High Order DSSS signal*, International Journal of Computer Networks & Communications, Vol No.5, Issue No.3, Academy & Industry Research Collaboration Center (AIRCC), March, citations-2, 2013
- > S.Javeed Hussain, Satya Savithri T , *Segmentation of Healthy Tissues and Glial Tumor with Quantitative Analysis on MRI images*, IJERT, Vol No.2, Issue No.11, pp.969-991, November, 2013
- > S.Javeed Hussain, Satya Savithri T , *Detection of Hydrocephalus Lateral Ventricles Quantitatively in Brain MRI Images of Infants*, International Journal of Computer Applications IJCA, Vol No.83, Issue No.15, Foundation of Computer Science., December, 2013
- > S.V.S.Prasad, Satya Savithri T , IV Murali Krishna, *Object Classification of Satellite Images Using Cluster Repulsion Based Kernel Fcm and Svm Classifier*, IOSR Journal of Electronics and Communication Engineering (IOSR-JECE), ISBN No.e-ISSN: 2278-2834,p-ISSN: 2278-8735, Vol No. 7 , Issue No.3, pp.25-35, Sep-Oct, 2013
- > G Sandhya, Giri Babu Kande, **T. Satya Savithri**, *Segmentation of MR Images of Brain to Detect WM,GM and CSF Tissues in presence of Noise and Intensity Inhomogeneity*, IETE Journal of Research, pp.1-13, Taylor & Francis, December, 2013
- > S.Javeed Hussain, Satya Savithri T , PV Sridevi, *Segmentation of Tissues in Brain MRI images using Neuro-Fuzzy Techniques*, International Journal of Soft Computing and Engineering, Vol No.1, Issue No.6, pp.416-423, January, citations-38., 2012
- > G.Jagadeeswar Reddy, T.Jayachandra Prasad, M.N.Giriprasad, M.Madhavi latha, **T. Satya Savithri**, *Curvelets with new quantizer for image compression*, Global Journal Of Computer Science And Technology, ISBN No.Online ISSN 0975-4172(online), ISSN 0975-4350 , Vol No.10, Issue No.8, version-1, April, citations-4, 2012
- > D.karunakar reddy, Mekala Ramarao , **T. Satya Savithri**, *Implementation of A Low Power Low Complexity VLSI Architecture for DSSS Signal Transmission and Reception*, IOSR Journal of VLSI and Signal Processing (IOSR-JVSP), ISBN No.ISSN: 2319-4200, ISBN No. : 2319-4197 , Vol No.1, Issue No.2, pp.21-29, Sept-Oct, 2012
- > D.karunakar reddy, Mekala Ramarao , **T. Satya Savithri**, *An Improved VLSI Architecture Using Galois Sequence for High Speed DSSS Signal Acquisition at Low SNR*, International Journal of Engineering Inventions, ISBN No.ISSN: 2278-7461, Vol No.1, Issue No.9, pp.42-48, November, 2012
- > S.Javeed Hussain, Satya Savithri T , P.V.Sreedevi , S.Asif Hussain, *A Hybrid Neuro-Fuzzy Approach For Segmentation of Subcortical Brain Structures*, International Journal of Engineering Research and Industrial Applications(IJERIA), , ISBN No.. ISSN:0974-1518, Vol No.4, Issue No.2, pp.267-278, May, 2011
- > S.Javeed Hussain, Satya Savithri T , P.V.Sreedevi , S.Asif Hussain, *Segmentation of Pathological and Healthy Tissues with Reduced Weighted Vectors Using Hybrid Intelligence Technique*, International Journal of Engineering Research and Industrial Applications(IJERIA), ISBN No.. ISSN:0974-1518., Vol No.4, Issue No.2, pp.315-321, May, 2011
- > S.Javeed Hussain, Satya Savithri T , *Hybrid System Applications in Computer Vision- A Review*, International Journal of Multidisciplinary Research and advances in Engineering, ISBN No.ISSN 0975-7074, Vol No.3, Issue No.4, pp.15-22, October, 2011
- > SVS Prasad, Satya Savithri T , IV Murali Krishna, *Classification of multispectral Satellite Images using clustering with SVM Classifier*, International Journal of Computer Applications, Vol No.35, Issue No.5, December,citations-21, 2011
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Automatic Detection of Microaneurysms and Hemorrhages in Digital Fundus Images*, Journal of Digital Imaging. (SPRINGER), ISBN No.ISSN: 0897-1889 (Print), 1618-727X (Online), Vol No.23, Issue No.4, pp.432-437, August, citations-56., 2010
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Unsupervised Fuzzy Based Vessel Segmentation in Pathological Digital Fundus Images*, Journal on Medical Systems. (SPRINGER), ISBN No.ISSN: 0148-5598 (Print), 1573-689X (Online), Vol No.34, Issue No.5, pp.849-858, october, citations:83 , 2010
- > V, Sumalatha, Satya Savithri T , *Router Control Mechanism For Congestion Avoidance In CDMA Based IP Network*, International Journal of Information Technology and Knowledge Management, Vol No.2, Issue No.2, pp.465-470, July-December, citations-1, 2010
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Automatic Detection and Boundary Estimation of Optic Disk in Fundus Images using Geometric Active Contours*, Journal of Biomedical Science and Engineering, ISBN No.ISSN: 1937-6871, Vol No.2, Issue No.2, pp.90-95, April, citations-7, 2009
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Feature Extraction in Fundus Images*, Journal of Medical and Biological Engineering, ISBN No.ISSN: 1609-0985, Vol No.29, Issue No.3, pp.122-130, June, citations-27, 2009
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Feature Extraction in Fundus Images*, Journal of Medical and Biological Engineering, ISBN No.ISSN: 1609-0985, Vol No.29, Issue No.3, pp.122-130, June, citations-27, 2009
- > **T. Satya Savithri**, V.N.Lakshmana Kumar, D Hari hara Santhosh, *Comparison of still images using wavelets , Ridgelets, wavelets and DCT*, National conf. on Signal Processing Comm, 4th & 5th , december, 2009
- > **T. Satya Savithri**, V.N.Lakshmana Kumar, D Hari hara Santhosh, *Image compression using Wavelets*, , AU (DST), 20th & 21st , November, 2009
- > Giri Babu Kande, Satya Savithri T , Venkata Subbaiah p, *Retinal Vessel Extraction in Digital Fundus Images*, Advances in Computer Science and Engineering, ISBN No.ISSN-0973-6999, Vol No.2, Issue No.1, pp.33-50, March, 2008

National Journals

- > G Sandya, Giri Babu Kande, **T. Satya Savithri**, *Tumor Segmentation by a Self Organizing -Map based Active Contour Model (SOMACM) from the Brain MRIS*, IETE Journal of Research, Taylor & Francis, June, 2020
- > G Sandhya, Giri Babu Kande, **T. Satya Savithri**, *Segmentation of MR Images of Brain to Detect WM,GM and CSF Tissues in presence of Noise and Intensity Inhomogeneity*, IETE Journal of Research, pp.1-13, Taylor & Francis, December, 2017
- > Rama Kalavathi Marapareddy, Ajay Bandi , Satya Savithri Tirumala , *Cloud Computing Architectures: A Retrospective Study*, Journal of Innovation in Computer Science and Engineering, ISBN No.ISSN 2278-0947, Vol No.2, Issue No.1, pp.1-5, December, 2012
- > Dr.T.Satya Savithri, V.N.Lakshmana Kumar, D Hari hara Santhosh, *A finite Radon cosine Transfor for Texture Image Compression*, Technology Spectrum, ISBN No.ISSN: 0974-6854, Vol No.4, Issue No.2, pp.9-21, July, 2010
- > **T. Satya Savithri**, K.Satya Prasad , *Comparison of Images based on LSMSE*Journal of the Institution of Engineering, Journal of the Institution of Engineering, pp.37-39, May, 2007
- > **T. Satya Savithri**, *Image Restoration by Wiener Filter and Iterative Blind Deconvolution*, Convergence Digest, Journal of Convergence Technologies, Vol No.3, pp.77-81, November, 2003

International Conference

- > TN Ramdeep, M Sampath, **T. Satya Savithri**, *Detection of Nodules and end-on vessels in CT scan image of Lungs*, 2018
- > MC Chinnaiah, Sanjay Dubey, K Anusha, P.RajeshKumar, **T. Satya Savithri**, *A Versatile Autonomous Navigation algorithm for smart Indoor Environment using FPGA based Robotâ€*, International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICT), pp.1196-1200, IEEE, 6th, July, 2017
- > G Sandhya, *An efficient method for the detection of White Matter, Gray Matter and Cerebrospinal Fluid from MR Images of brain using an advanced Multilevel Thresholding*, Third International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB), pp.422-426, IEEE, 27th, February, 2017
- > G.Sandhya, Giri Babu Kande, **T. Satya Savithri**, *Detection of Normal and Abnormal tissues in MR Images of the Brain using Multilevel Advanced Thresholding Technique and Kernel SVM Classifier*, International Conference on Computer Communication and Informatics (ICCCI), pp.1-10, IEEE, 5th, January, citations:1, 2017
- > **T. Satya Savithri**, S.K.Chaya devi, *Nodule Detection from Posterior and Anterior Chest Radiographs with different Methods*, Future Technologies Conference (FTC), pp.504-515, 6th, December, 2016
- > Karunakar Reddy. D, Satya Savithri T , *Optimal Coding Pattern for DSSS coding with Interference Minimization*, International Conference on Inventive Computation Technologies (ICICT), pp.1-5, IEEE, 26th, August, 2016
- > D. Sanjay, MC. Chinnaiah, Rajesh kumar, T. Satya Savithri, *A Survey of reconfigurable Service Robots*, International Conference on Research Advances in Integrated Navigation Systems (RAINS), IEEE, 6th, May, citations:4, 2016
- > D. Hari Krishana, IA. Pasha, **T. Satya Savithri**, *Autonomous Robot control based on EEG and Cross-correlation*, 10th International Conference on Intelligent Systems and Control (ISCO), pp.1-4, 7th January, citations : 4, 2016
- > K.P.Chandar, Satya Savithri T , *3D face model estimation based on Similarity Transform using Differential Evolution Optimization*, Procedia Computer Science, Vol No.54, pp.621-630, 2015
- > Chinnaiah M.C., Satya Savithri T , Kumar. P.R, *A Novel Approach in Navigation of FPGA Robots in Robust Indoor environment*, International IEEE Conference on, Advance Robotics and Intelligent systems (ARIS -2015), Taipei, Taiwan, IEEE, 29-31, May, 2015
- > Sanjay Dubay, P. Rajesh Kumar, **T. Satya Savithri**, *Robotic System using fuzzy logic for person follower*, International Conference on Electrical, Electronics, Signals, Communication and Optimization (EESCO), pp.1-4, IEEE, 24th, January, citations:2, 2015
- > G Sandhya, Giri Babu Kande, **T. Satya Savithri**, *An efficient method for the detection of White Matter, Gray Matter and Cerebrospinal Fluid from MR Images of brain using an advanced Multilevel Thresholding*, Third International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB), IEEE, 27th, February

National Conference

- > A.BharaniKrishna, M.C.Chinnaiah, SanjayDubey, Dr.P.RajeshKumar, **T. Satya Savithri**, *Simulation of Shortest Path Algorithm for Novel Robotic Wheel Chair*, National Conference on Assistive Technology, BVRIT, Hyderabad and University of Massachusetts, Lowell, USA, 29th-31st, July, 2011
- > **T. Satya Savithri**, V.N.Lakshmana Kumar, D Hari hara Santhosh, *Improved Compression factor in Still Images by the combined effect of DCT and Ridgelets*, National Conf. on UTSAV, Kavikulgu Inst. Of Tech & Science, 28th -29th , December, 2009
- > **T. Satya Savithri**, K.Satya Prasad, *Image Restoration*, National conference on Control Instrumentation, MIT, Manipal, November, 2004
- > **T. Satya Savithri**, K.Satya Prasad , *Denoising of Images Using Wavelets*, National Conf. on Multimedia Technologies and Applications, KITS, Coimbatore , July, 2004
- > T.Satya Savithri, *Removal of Salt and Pepper Noise in Degraded Images*, National Conf. on Emerging Trends SE & IT, February, 2004
- > **T. Satya Savithri**, K.Satya Prasad, *Wiener Filter for Image Restoration*, National Conf. on MINAC, December, 2002

- > **Teaching**
- > Radar signal processing in M.Tech (SSP) 2 (2)
- > VHDL in M.Tech (DSCE) 2 (2)
- > CPLD and FPGA Architectures and applications in M.Tech (DSCE) 2 (2)
- > DFTS in M.Tech (DSCE) 2 (1)
- > Digital System Design in M.Tech (DSCE) 1 (1)
- > Distributive operating system in M.Tech (DSCE,SSP) 2 (2)
- > operating systems in ECE 2 (3)
- > pattern recognition and Machine learning in ECE 2 (4)
- > Artificial Intelligence in M.Tech (DSCE) 2 (2)
- > Analog Electronics in ECE 2 (2)
- > Antenna and wave propagation in ECE 1 (3)
- > TV Engineering in ECE 1 (4)
- > Electronic Measurements and Instrumentation in ECE 2 (4)
- > Linear and Digital IC Applications in ECE 1 (3)
- > satellite Communications in ECE 2 (4)
- > Radar Engineering in ECE 2 (4)
- > Microwave Engineering in ECE 1 (3)
- > Pulse and Digital Circuits in ECE 2 (2)
- > Switching Theory and Logic Design in ECE 2 (2)
- > Electromagnetic Theory and Transmission lines in ECE 2 (1)
- > Digital communications in ECE 1 (3)
- > Analog communications in ECE 2 (2)
- > Electronics Devices and circuits in ECE 1 (2)
- > Coding Theory and Techniques in M.Tech (SSP&DSCE) 1 (1)
- > Adaptive Signal Processing in M.Tech (SSP) 2 (1)
- > Image and Video Processing in M.Tech (SSP&DSCE) 2 (1)
- > VLSI Design and Technology in M.Tech (SSP&DSCE) 1 (1)
- > Advanced Digital Signal Processing in M.Tech (SSP) 1 (1)
- > Transform Techniques in M.Tech (SSP) 1 (1)
- > **Administrative Positions Held**
- > MoU coordinator, JNTUH, 06 May 2019 - Present
- > BoS Chair, JNTUH, 03 May 2022 - Present
- > Head of the Department, JNTUH College of Engg, Dept., ECE, 23 Nov 2016 - 28 Dec 2018
- > Deputy Warden, Girls Hostel, JNTUH CEH, Hyderabad, 10 Aug 2010 - 18 Nov 2011
- > Officer-in-charge of Examinations, JNTUH College of Engg, 23 Sep 2013 - 05 Dec 2015
- > Co-ordinator, JNTUH, R&D Cell, 27 Jun 2009 - 02 Aug 2010

-> **Project/Research Guidance**

- **Students**

Student Name	Title	Year	Download
Vamshi Talla	Development of Network-On-Chip Architectures and Evaluation with different Data Sequences	2022	
Dundati Karunakar Reddy	Adaptive code selection and allocation for DSSS Communication	2021	
G. Sandhya	Detection and Evaluation of Normal and Abnormal Tissues from the MR Images of the Brain	2020	
Chayadevi Senigalukuruba	Nodule Detection from Posterior and Anterior Chest Radio graphs	2020	
Harikrishna Dodde	Development of Multi Class Classification methods to Improve BCI Assistive Embedded System for Cognitive Disability	2020	
Venkata Sriraj	Hybrid Techniques for quality improvement in voice over internet protocols	2019	
Rajendra prasad	Channel Estimation for Modified Tapped Delay Line Model for Multicarrier System Using Risk Sensitive Filter	2019	
Bhuvaneshwari A	Development of efficient mobile radio path loss models for indoor and outdoor environments	2019	
K. Punnam Chandar	Construction of 3D Face Model for Evaluation Study on Depth Vs. Pose Estimation	2018	
Sanjay Dubay	New Person Follower Robotic System with Fuzzy Based Smooth Motion Controller	2017	
S.V.S. Prasad	Fuzzy Incorporated Hierarchical Clustering Approach for Geographic Object Based Image Analysis	2017	
M.C. Chinnnaiah	Development of New VLSI Architecture for FPGA based Robotic Navigation in an Indoor Environment	2016	
Shaik Javeed Hussain	Identification and Classification of Brain Pathologies using MRI Images	2016	
K.Giri Babu	Feature Extraction from Fundus Images to analyze Diabetic Retinopathy	2010	

-> **Countries/Foreign Universities**

- > University of California, Barkley, Barkley, California , 23-10-2013 to 25-10-2013 Paper Presented in World Congress on Engineering and Computer Science, International conference

-> **Downloads**

- > cv

Contact :

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