



Mrs. T. Surya Kavitha

Associate Professor

Department of Electronics & communication Engineering

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Interests: Image Signal Processing; Signal Processing; Machine Learning; Swarm Intelligence and Communications

Course Taught Previously

UG.

- Digital Logic Design.
- Switching Theory and Logic Design.
- Electronic Instrumentation
- Linear IC Applications
- Digital Communications
- Random Variables & Stochastic Processes
- Probability Theory & Stochastic Processes
- Electromagnetic waves & Transmission line
- Control Systems
- Optical Communications
- Electronic Measurements and Instrumentation
- **Laboratories Handled**
- Electronic Devices Lab (Designing circuits using BJT, FET & CE CC Amplifiers)
- Linear Integrated Circuits Lab (741 Op-amp applications, Comparator, A/D, D/A convertor, 555 timer)
- Digital communications Lab.
- Digital Image and video Processing Lab
- Signals and Systems Lab
- Digital Image and Video Processing Lab

Publications

International Journals



1. T Surya Kavitha, A Vamsidhar, G Ramesh Babu, GV Sridhar, G Sunil Kumar, An Automated Facemask Detection For Covid-19 Using Viola-Jones Algorithm, Journal of Pharmaceutical Negative Results,2022.
2. PriyaSamhitha.N Vamsidhar, Surya Kavitha, Supreeth, DivyaKrishna, VinodKumar, Machine Learning application for Smartphone Captured Iris Recognition using Image Embedding for Feature Extraction, NeuroQuantology|, June 2022.
3. Tirugatla Surya Kavitha, Dr. K. Satya Prasad, A novel method of compressive sensing MRI reconstruction based on sandpiper optimization algorithm (SPO) and mask region based convolution neural network (mask RCNN), Multimedia Tools and Applications, April 2022 (SCI). <https://doi.org/10.1007/s11042-022-12940-x>
4. T.Surya Kavitha, Dr. K. Satya Prasad, Performance Evaluation Of Total Variation based Compressed Sensing MRI for Different Sampling Patterns., International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-11, September 2019(SCOPUS)
5. T.Surya Kavitha, Dr. K. Satya Prasad, Quantitative Comparison Of Reconstruction Methods for Compressive Sensing MRI, International Journal of Scientific & Technology Research,Volume- 8, ISSUE 10, October 2019(SCOPUS)
6. Tirugatla Surya Kavitha, Dr. K. Satya Prasad, Hybridizing ant lion with whale optimization algorithm for compressed sensing MR image reconstruction via l_1 minimization: an ALWOA strategy, Evolutionary Intelligence, September (2020). <https://doi.org/10.1007/s12065-020-00475-9>, (ESCI), Impact factor- 0.94
7. T.Surya Kavitha, v.Raju, An environmental pollution monitoring system using lora, International Journal Of Technical & Scientific Research, 2019.



Conference Proceedings

1. Leelavathi Dangeti, Viswanadham Ravuri, M.V.Subbarao, T.Sudheer Kumar, T.S.Kavitha, D.Ram Sandeep, Multi-Cancer Early Detection And Classification Using Machine Learning Based Approaches, 2023 Third International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), May 2023.
2. Vamsidhar Anagani, Surya Kavitha Tirugatla, G. Ramesh Babu, Image Enhancement Using Chicken Swarm Optimization, Proceedings of the

International Conference on Computational Intelligence and Sustainable Technologies, (February 2022).

3. G. Ramesh Babu, Vamsidhar Anagani, Surya Kavitha Tirugatla, G.V.Sridhar, A Birdsong Denoising using Cascaded Combination of Phase Spectrum Compensation and Wavelets, 2022 International Conference on Computing, Communication and Power Technology (IC3P).