DR. SOWMYA. V, M.Sc., M.Tech., Ph.D.

Assistant Professor,

Computational Engineering and Networking

Amrita Center for Computational Engineering and Networking (CEN), Coimbatore

List of Publications:

Journals:

- 1. S. Sriram, R. Vinayakumar, V. Sowmya, M. Alazab and K. P. Soman, "Multi-scale Learning based Malware Variant Detection using Spatial Pyramid Pooling Network," *IEEE INFOCOM 2020 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)*, Toronto, ON, Canada, 2020, pp. 740-745, doi: 10.1109/INFOCOMWKSHPS50562.2020.9162661.
- 2. R. Balasubramanian, V. Sowmya, E. A. Gopalakrishnan, V. K. Menon, V. V. Sajith Variyar and K. P. Soman, "Analysis of Adversarial based Augmentation for Diabetic Retinopathy Disease Grading," 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Kharagpur, India, 2020, pp. 1-5, doi: 10.1109/ICCCNT49239.2020.9225684.
- 3. I. I. S, K. S. Kumar, U. V. Krishna, N. Mohan, V. Sowmya and K. P. Soman, "Investigating the Significance of Dynamic Mode Decomposition for Fast and Accurate Parameter Estimation in Power Grids," 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Kharagpur, India, 2020, pp. 1-5, doi: 10.1109/ICCCNT49239.2020.9225579.
- 4. M. T. Vyshnav, V. Sowmya, E. A. Gopalakrishnan, S. V. V V, V. K. Menon and K. P. Soman, "Deep Learning Based Approach for Multiple Myeloma Detection," 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Kharagpur, India, 2020, pp. 1-7, doi: 10.1109/ICCCNT49239.2020.9225651.
- 5. V Sowmya, KP Soman (2020), "Facial Emotion Recognition Using Shallow CNN", Springer Nature, Volume 1203, pp. 144.
- 6. S. Srinivasan et al., "Deep Convolutional Neural Network Based Image Spam Classification," 2020 6th Conference on Data Science and Machine Learning Applications (CDMA), Riyadh, Saudi Arabia, 2020, pp. 112-117, doi: 10.1109/CDMA47397.2020.00025.

- 7. Sowmya, V., Govind, D. & Soman, K.P. Significance of processing chrominance information for scene classification: a review. Artif Intell Rev 53, 811–842 (2020). https://doi.org/10.1007/s10462-018-09678-0
- 8. N Harini, B Ramji, S Sriram, V Sowmya, KP Soman (2020), "Musculoskeletal radiographs classification using deep learning", Deep Learning for Data Analytics, Academic Press, pp. 79-98.
- 9 Nirmal S., Sowmya V., Soman K.P. (2020) Open Set Domain Adaptation for Hyperspectral Image Classification Using Generative Adversarial Network. In: Ranganathan G., Chen J., Rocha Á. (eds) Inventive Communication and Computational Technologies. Lecture Notes in Networks and Systems, vol 89. Springer, Singapore. https://doi.org/10.1007/978-981-15-0146-3_78
- 10 P Gopika, V Sowmya, EA Gopalakrishnan, KP Soman (2020), "Transferable approach for cardiac disease classification using deep learning", Deep Learning Techniques for Biomedical and Health Informatics, Academic Press, pp. 285-303.
- 11. Radhika K., Devika K., Aswathi T., Sreevidya P., Sowmya V., Soman K.P. (2020) Performance Analysis of NASNet on Unconstrained Ear Recognition. In: Rout M., Rout J., Das H. (eds) Nature Inspired Computing for Data Science. Studies in Computational Intelligence, vol 871. Springer, Cham. https://doi.org/10.1007/978-3-030-33820-6_3
- 12. Sachin Saj T.K., Babu S., Reddy V.K., Gopika P., Sowmya V., Soman K.P. (2020) Facial Emotion Recognition Using Shallow CNN. In: Thampi S., Trajkovic L., Li KC., Das S., Wozniak M., Berretti S. (eds) Machine Learning and Metaheuristics Algorithms, and Applications. SoMMA 2019. Communications in Computer and Information Science, vol 1203. Springer, Singapore. https://doi.org/10.1007/978-981-15-4301-2_12
- 13. P. Gopika, V. Sowmya, E. A. Gopalakrishnan and K. P. Soman, "Performance Improvement of Deep Learning Architectures for Phonocardiogram Signal Classification using Fast Fourier Transform," 2019 9th International Conference on Advances in Computing and Communication (ICACC), Kochi, India, 2019, pp. 290-294, doi: 10.1109/ICACC48162.2019.8986216.

- 14. Kurup R.V., Anupama M.A., Vinayakumar R., Sowmya V., Soman K.P. (2020) Capsule Network for Plant Disease and Plant Species Classification. In: Smys S., Tavares J., Balas V., Iliyasu A. (eds) Computational Vision and Bio-Inspired Computing. ICCVBIC 2019. Advances in Intelligent Systems and Computing, vol 1108. Springer, Cham. https://doi.org/10.1007/978-3-030-37218-7_47
- 15. Unnikrishnan, A., Sowmya, V. & Soman, K.P. Deep learning architectures for land cover classification using red and near-infrared satellite images. Multimed Tools Appl 78, 18379–18394 (2019). https://doi.org/10.1007/s11042-019-7179-2
- 16. T. T. Sasidhar, S. K., V. M.T., S. V. and S. K.P., "Land Cover Satellite Image Classification Using NDVI and SimpleCNN," 2019 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT), Kanpur, India, 2019, pp. 1-5, doi: 10.1109/ICCCNT45670.2019.8944840.
- 17. E. Rohith, V. Sowmya and K. P. Soman, "Convolutional Neural Networks for Placenta Cell Classification," 2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), Kannur, Kerala, India, 2019, pp. 1273-1277, doi: 10.1109/ICICICT46008.2019.8993145.
- 18. R. Naren Babu, V. Sowmya and K. P. Soman, "Indian Car Number Plate Recognition using Deep Learning," 2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), Kannur, Kerala, India, 2019, pp. 1269-1272, doi: 10.1109/ICICICT46008.2019.8993238.
- 19. Jayanarayan A., Sowmya V., Soman K.P. (2020) Remote Sensing Image Super-Resolution Using Residual Dense Network. In: Reddy V., Prasad V., Wang J., Reddy K. (eds) Soft Computing and Signal Processing. ICSCSP 2019. Advances in Intelligent Systems and Computing, vol 1118. Springer, Singapore. https://doi.org/10.1007/978-981-15-2475-2_66
- 20. A. Kumar T.K., R. Vinayakumar, S. Variyar V.V., V. Sowmya and K. P. Soman, "Convolutional Neural Networks for Fingerprint Liveness Detection System," 2019 International

- Conference on Intelligent Computing and Control Systems (ICCS), Madurai, India, 2019, pp. 243-246, doi: 10.1109/ICCS45141.2019.9065713.
- 21. M. A. Anupama, V. Sowmya and K. P. Soman, "Breast Cancer Classification using Capsule Network with Preprocessed Histology Images," 2019 International Conference on Communication and Signal Processing (ICCSP), Chennai, India, 2019, pp. 0143-0147, doi: 10.1109/ICCSP.2019.8698043.
- 22. S. V. V.V., G. E.A., S. V. and S. K.P., "A Complex Network Approach for Plant Growth Analysis using Images," 2019 International Conference on Communication and Signal Processing (ICCSP), Chennai, India, 2019, pp. 0249-0253, doi: 10.1109/ICCSP.2019.8698021.
- 23. Saiprasath G, Naren Babu R, ArunPriyan J, Vinayakumar R, Sowmya V, Soman K P," PERFORMANCE COMPARISON OF MACHINE LEARNING ALGORITHMS FOR MALARIA DETECTION USING MICROSCOPIC IMAGES", International Journal of Research and Analytical Reviews (IJRAR), Volume 6, Issue 1, pp. 86-90.
- 24. Vimal Kurup R., Sowmya V., Soman K.P. (2020) Effect of Data Pre-processing on Brain Tumor Classification Using Capsulenet. In: Gunjan V., Garcia Diaz V., Cardona M., Solanki V., Sunitha K. (eds) ICICCT 2019 System Reliability, Quality Control, Safety, Maintenance and Management. ICICCT 2019. Springer, Singapore. https://doi.org/10.1007/978-981-13-8461-5_13
- 25. Gopika P., Sowmya V., Gopalakrishnan E.A., Soman K.P. (2020) Performance Improvement of Residual Skip Convolutional Neural Network for Myocardial Disease Classification. In: Gunjan V., Garcia Diaz V., Cardona M., Solanki V., Sunitha K. (eds) ICICCT 2019 System Reliability, Quality Control, Safety, Maintenance and Management. ICICCT 2019. Springer, Singapore. https://doi.org/10.1007/978-981-13-8461-5_25
- 26. Damodaran N., Sowmya V., Govind D., Soman K.P. (2019) Single-Plane Scene Classification Using DeepConvolution Features. In: Wang J., Reddy G., Prasad V., Reddy V. (eds) Soft Computing and Signal Processing. Advances in Intelligent Systems and Computing, vol 900. Springer, Singapore. https://doi.org/10.1007/978-981-13-3600-3_71

- 27. Jacob, Naveen Varghese, Sowmya, V., and Soman, K.P. 'Effect of Denoising on Hyperspectral Image Classification Using Deep Networks and Kernel Methods'. 1 Jan. 2019: 2067 2073.
- 28. Sowmya V., Soman K.P., Hassaballah M. (2019) Hyperspectral Image: Fundamentals and Advances. In: Hassaballah M., Hosny K. (eds) Recent Advances in Computer Vision. Studies in Computational Intelligence, vol 804. Springer, Cham. https://doi.org/10.1007/978-3-030-03000-1_16
- 29. Damodaran N., Sowmya V., Govind D., Soman K.P. (2019) Scene Classification Using Transfer Learning. In: Hassaballah M., Hosny K. (eds) Recent Advances in Computer Vision. Studies in Computational Intelligence, vol 804. Springer, Cham. https://doi.org/10.1007/978-3-030-03000-1_15
- 30. Ankarao, V., Sowmya, V. & Soman, K.P. Multi-sensor data fusion using NIHS transform and decomposition algorithms. Multimed Tools Appl 77, 30381–30402 (2018). https://doi.org/10.1007/s11042-018-6114-2
- 31. Swarna, M., Sowmya, V. & Soman, K.P. Band selection using variational mode decomposition applied in sparsity-based hyperspectral unmixing algorithms. SIViP 12, 1463–1470 (2018). https://doi.org/10.1007/s11760-018-1301-1
- 32. Renu R.K., Sowmya V., Soman K.P. (2019) Pre-processed Hyperspectral Image Analysis Using Tensor Decomposition Techniques. In: Thampi S., Marques O., Krishnan S., Li KC., Ciuonzo D., Kolekar M. (eds) Advances in Signal Processing and Intelligent Recognition Systems. SIRS 2018. Communications in Computer and Information Science, vol 968. Springer, Singapore. https://doi.org/10.1007/978-981-13-5758-9_18
- 33. Charmisha K.S., Sowmya V., Soman K.P. (2019) Dimensionality Reduction by Dynamic Mode Decomposition for Hyperspectral Image Classification Using Deep Learning and Kernel Methods. In: Thampi S., Marques O., Krishnan S., Li KC., Ciuonzo D., Kolekar M. (eds) Advances in Signal Processing and Intelligent Recognition Systems. SIRS 2018. Communications in Computer and Information Science, vol 968. Springer, Singapore. https://doi.org/10.1007/978-981-13-5758-9_22

- 34. N. V. Jacob, V. Sowmya and K. P. Soman, "A Comparative Analysis of Total Variation and Least Square Based Hyperspectral Image Denoising Methods," 2018 International Conference on Communication and Signal Processing (ICCSP), Chennai, 2018, pp. 0058-0063, doi: 10.1109/ICCSP.2018.8524265.
- 35. Reshma, R., Sowmya, V. & Soman, K.P. Effect of Legendre–Fenchel denoising and SVD-based dimensionality reduction algorithm on hyperspectral image classification. Neural Comput & Applic 29, 301–310 (2018). https://doi.org/10.1007/s00521-017-3145-y
- 36. R. K. Renu, V. Sowmya and K. P. Soman, "Spatio-Spectral Compression and Analysis of Hyperspectral Images using Tensor Decomposition," 2018 Twenty Fourth National Conference on Communications (NCC), Hyderabad, 2018, pp. 1-6, doi: 10.1109/NCC.2018.8600185.
- 37. C. Jayaprakash, B. B. Damodaran, S. V. and K. P. Soman, "Dimensionality Reduction of Hyperspectral Images for Classification using Randomized Independent Component Analysis," 2018 5th International Conference on Signal Processing and Integrated Networks (SPIN), Noida, 2018, pp. 492-496, doi: 10.1109/SPIN.2018.8474266.
- 38. V. S. Mohan, V. Sowmya and K. P. Soman, "Deep Neural Networks as Feature Extractors for Classification of Vehicles in Aerial Imagery," 2018 5th International Conference on Signal Processing and Integrated Networks (SPIN), Noida, 2018, pp. 105-110, doi: 10.1109/SPIN.2018.8474153.
- 39. Charmisha K.S., Sowmya V., Soman K.P. (2019) Dimensionally Reduced Features for Hyperspectral Image Classification Using Deep Learning. In: Kumar A., Mozar S. (eds) ICCCE 2018. ICCCE 2018. Lecture Notes in Electrical Engineering, vol 500. Springer, Singapore. https://doi.org/10.1007/978-981-13-0212-1_18
- 40. Unnikrishnan A., Sowmya V., Soman K.P. (2019) A Two-Band Convolutional Neural Network for Satellite Image Classification. In: Kumar A., Mozar S. (eds) ICCCE 2018. ICCCE 2018. Lecture Notes in Electrical Engineering, vol 500. Springer, Singapore. https://doi.org/10.1007/978-981-13-0212-1_17
- 41. Megha P., Sowmya V., Soman K.P. (2018) Effect of Dynamic Mode Decomposition-Based Dimension Reduction Technique on Hyperspectral Image Classification. In: Nandi A., Sujatha

- N., Menaka R., Alex J. (eds) Computational Signal Processing and Analysis. Lecture Notes in Electrical Engineering, vol 490. Springer, Singapore. https://doi.org/10.1007/978-981-10-8354-9_9
- 42. Ankarao V., Sowmya V., Soman K.P. (2018) Fusion of Panchromatic Image with Low-Resolution Multispectral Images Using Dynamic Mode Decomposition. In: Nandi A., Sujatha N., Menaka R., Alex J. (eds) Computational Signal Processing and Analysis. Lecture Notes in Electrical Engineering, vol 490. Springer, Singapore. https://doi.org/10.1007/978-981-10-8354-9 31
- 43. Dixon K.D.M., Sowmya V., Soman K.P. (2018) Effect of Denoising on Vectorized Convolutional Neural Network for Hyperspectral Image Classification. In: Nandi A., Sujatha N., Menaka R., Alex J. (eds) Computational Signal Processing and Analysis. Lecture Notes in Electrical Engineering, vol 490. Springer, Singapore. https://doi.org/10.1007/978-981-10-8354-9_28
- 44. Swarna M., Sowmya V., Soman K.P. (2018) Effect of Dimensionality Reduction on Sparsity Based Hyperspectral Unmixing. In: Abraham A., Cherukuri A., Madureira A., Muda A. (eds) Proceedings of the Eighth International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016). SoCPaR 2016. Advances in Intelligent Systems and Computing, vol 614. Springer, Cham. https://doi.org/10.1007/978-3-319-60618-7_42
- 45. Srivatsa S., Sowmya V., Soman K.P. (2018) Least Square Based Fast Denoising Approach to Hyperspectral Imagery. In: Sa P., Sahoo M., Murugappan M., Wu Y., Majhi B. (eds) Progress in Intelligent Computing Techniques: Theory, Practice, and Applications. Advances in Intelligent Systems and Computing, vol 518. Springer, Singapore. https://doi.org/10.1007/978-981-10-3373-5_9
- 46. S. Dev Vishnu, S. Rajan, V. Sowmya and K. P. Soman, "Hyperspectral image denoising: A least square approach using wavelet filters," 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Udupi, 2017, pp. 805-811, doi: 10.1109/ICACCI.2017.8125941.

- 47. S. Jose, N. Mohan, V. Sowmya and K. P. Soman, "Least square based image deblurring," 2017 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Udupi, 2017, pp. 1453-1457, doi: 10.1109/ICACCI.2017.8126045.
- 48. Sachin R., Sowmya V., Govind D., Soman K.P. (2018) Dependency of Various Color and Intensity Planes on CNN Based Image Classification. In: Thampi S., Krishnan S., Corchado Rodriguez J., Das S., Wozniak M., Al-Jumeily D. (eds) Advances in Signal Processing and Intelligent Recognition Systems. SIRS 2017. Advances in Intelligent Systems and Computing, vol 678. Springer, Cham. https://doi.org/10.1007/978-3-319-67934-1_15
- 49. V. Sowmya, A. Ajay, D. Govind and K. P. Soman, "Improved color scene classification system using deep belief networks and support vector machines," 2017 IEEE International Conference on Signal and Image Processing Applications (ICSIPA), Kuching, 2017, pp. 33-38, doi: 10.1109/ICSIPA.2017.8120575.
- 50. B. Ashwini, N. Mohan, S. Se, V. Sowmya and K. P. Soman, "Performance evaluation of edge feature extracted using sparse banded matrix filter applied for face recognition," 2017 International Conference on Circuit ,Power and Computing Technologies (ICCPCT), Kollam, 2017, pp. 1-5, doi: 10.1109/ICCPCT.2017.8074386.
- 51. V. V. Pradeep, R. Reshma, V. Sowmya and K. P. Soman, "Comparative analysis of sparsity based and kernel based algorithms for hyperspectral image classification," 2017 International Conference on Circuit ,Power and Computing Technologies (ICCPCT), Kollam, 2017, pp. 1-6, doi: 10.1109/ICCPCT.2017.8074387.
- 52. M. Srikanth, K. S. G. Krishnan, V. Sowmya and K. P. Soman, "Image denoising based on weighted regularized least square method," 2017 International Conference on Circuit ,Power and Computing Technologies (ICCPCT), Kollam, 2017, pp. 1-5, doi: 10.1109/ICCPCT.2017.8074388.
- 53. A. Ajay, V. Sowmya and K. P. Soman, "Vehicle detection in aerial imagery using eigen features," 2017 International Conference on Communication and Signal Processing (ICCSP), Chennai, 2017, pp. 1620-1624, doi: 10.1109/ICCSP.2017.8286664.

- 54. V. Ankarao, V. Sowmya and K. P. Soman, "Sparse image denoising using dictionary constructed based on least square solution," 2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, 2017, pp. 1165-1171, doi: 10.1109/WiSPNET.2017.8299947.
- 55. H. T. Suseelan, V. Sowmya and K. P. Soman, "Image dehazing using variational mode decomposition," 2017 International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), Chennai, 2017, pp. 200-205, doi: 10.1109/WiSPNET.2017.8299748.
- 56. V. Sowmya, D. Govind and K. P. Soman, "Significance of contrast and structure features for an improved color image classification system," 2017 IEEE International Conference on Signal and Image Processing Applications (ICSIPA), Kuching, 2017, pp. 210-215, doi: 10.1109/ICSIPA.2017.8120608.
- 57. Jayaprakash Chippy, Naveen Varghese Jacob, R.K. Renu, V Sowmya, K.P. Soman, Least Square Denoising in Spectral Domain for Hyperspectral Images, Procedia Computer Science, Volume 115, 2017, Pages 399-406, ISSN 1877-0509, https://doi.org/10.1016/j.procs.2017.09.098.
- 58. M. Swarna, V. Sowmya, K.P. Soman, Effect of Denoising on Dimensionally Reduced Sparse Hyperspectral Unmixing, Procedia Computer Science, Volume 115, 2017, Pages 391-398, ISSN 1877-0509, https://doi.org/10.1016/j.procs.2017.09.096.
- 59. Vishnu Pradeep, V., Sowmya, V., and Soman, K.P. 'Application of M-band Wavelet in Pansharpening'. 1 Jan. 2017: 3151 3158.
- 60. Sowmya, V., Govind, D. & Soman, K.P. Significance of incorporating chrominance information for effective color-to-grayscale image conversion. SIViP 11, 129–136 (2017). https://doi.org/10.1007/s11760-016-0911-8
- 61. M. Swarna, P. Megha, V. Sowmya and K. P. Soman," Regularized Least Square Approach for Remote Sensing Image Denoising using Wavelet Filters", Indian Journal of Science and Technology, Vol 9(45), DOI: 10.17485/ijst/2016/v9i45/106487, December 2016.

- 62. Veena P. V, G. Remmiya Devi, V. Sowmya, K. P. Soman," Least Square based Image Denoising using Wavelet Filters", 2016 International Conference on Innovations in information, Embedded and Communication Systems (ICIIECS).
- 63. K. Deepa Merlin Dixon, Aleena Ajay, V. Sowmya and K. P. Soman," Aerial and Satellite Image Denoising using Least Square Weighted Regularization Method", Indian Journal of Science and Technology, Vol 9(30), DOI: 10.17485/ijst/2016/v9i30/99025, August 2016.
- 64.. P. Megha, M. Swarna, V. Sowmya and K. P. Soman, "Low contrast satellite image restoration based on adaptive histogram equalization and discrete wavelet transform," 2016 International Conference on Communication and Signal Processing (ICCSP), Melmaruvathur, 2016, pp. 0402-0406, doi: 10.1109/ICCSP.2016.7754166.
- 65. A. Ajay, K. Deepa Merlin Dixon, V. Sowmya and K. P. Soman, "Aerial image classification using GURLS and LIBSVM," 2016 International Conference on Communication and Signal Processing (ICCSP), Melmaruvathur, 2016, pp. 0396-0401, doi: 10.1109/ICCSP.2016.7754165.
- 66. A. Pooja, R. Mamtha, V. Sowmya and K. P. Soman, "X-ray image classification based on tumor using GURLS and LIBSVM," 2016 International Conference on Communication and Signal Processing (ICCSP), Melmaruvathur, 2016, pp. 0521-0524, doi: 10.1109/ICCSP.2016.7754192.
- 67. Aiswarya M.*, Deepika N., V. Sowmya, Neethu Mohan, K. P. Soman(2016), "LEAST SQUARE BASED APPROACH FOR IMAGE INPAINTING", SPECIAL ISSUE (ASPM), ISSN: 0976-3104.
- 68. ATURE EXTRACTION Deepthi Praveenlal Kuttichira*, V. Sowmya, K.P. Soman(2016)," DIGIT RECOGNITION USING MULTIPLE FEATURE EXTRACTION", SPECIAL ISSUE (ASPM), ISSN: 0976-3104.
- 69. Hima T. Suseelan*, Sooraj Sudhakaran, V. Sowmya, K. P. Soman(2016), "PERFORMANCE EVALUATION OF SPARSE BANDED FILTER MATRICES USING CONTENT BASED IMAGE RETRIEVAL", SPECIAL ISSUE (ASPM), SSN: 0976-3104.

- 70. K.P. Nechikkat, N., Sowmya, V., Soman(2016)," Low dimensional variational mode features for hyperspectral image classification", Journal of Chemical and Pharmaceutical Sciences, Volume 9, Issue 1, pp. 565-570.
- 71. Vishnu Pradeep V.*, V. Sowmya* and K. P. Soman*(2016)," Variational Mode Decomposition based Multispectral and Panchromatic Image Fusion", I J C T A, 9(16), 2016, pp. 8051-8059.
- 72. K.P Megha, P., Swarna, M., Deepa Merlin Dixon, K., Sowmya, V., Soman(2016)," Impact of least square denoising on kernel based hyperspectral image classification", International Journal of Control Theory and Applications, Volume 9, Issue 10, pp. 4623-4630.
- 73. Reshma R, V Sowmya, K P Soman," Improvement in Kernel based Hyperspectral Image Classification Using Legendre Fenchel Denoising", 2016 International Conference on Innovations in information, Embedded and Communication Systems (ICIIECS'16).
- 74. S Lekshmi Kiran, V Sowmya, KP Soman(2016), "Enhanced Variational Mode Features For Hyperspectral Image Classification", Journal of Chemical and Pharmaceutical Sciences, Volume 9, Issue 1, pp. 502-505.
- 75. Shriya Se, D Pradeep, V Sowmya, KP Soman, "Fourier Descriptor features for Shape Deformation Classification using Random Kitchen Sink", Journal of Chemical and Pharmaceutical Sciences, Volume 9, Issue 1, 554-558.
- 76. Mol P.G., Sowmya V., Soman K.P. (2016) Performance Enhancement of Minimum Volume-Based Hyperspectral Unmixing Algorithms by Empirical Wavelet Transform. In: Suresh L., Panigrahi B. (eds) Proceedings of the International Conference on Soft Computing Systems. Advances in Intelligent Systems and Computing, vol 397. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2671-0_24
- 77. Moushmi S., Sowmya V., Soman K.P. (2016) Empirical Wavelet Transform for Multifocus Image Fusion. In: Suresh L., Panigrahi B. (eds) Proceedings of the International Conference on Soft Computing Systems. Advances in Intelligent Systems and Computing, vol 397. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2671-0_25

- 78. Lekshmi Kiran S., Sowmya V., Soman K.P. (2016) Dimensionality Reduced Recursive Filter Features for Hyperspectral Image Classification. In: Satapathy S., Raju K., Mandal J., Bhateja V. (eds) Proceedings of the Second International Conference on Computer and Communication Technologies. Advances in Intelligent Systems and Computing, vol 380. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2523-2_54
- 79. Nechikkat N., Sowmya V., Soman K.P. (2016) Variational Mode Feature-Based Hyperspectral Image Classification. In: Satapathy S., Raju K., Mandal J., Bhateja V. (eds) Proceedings of the Second International Conference on Computer and Communication Technologies. Advances in Intelligent Systems and Computing, vol 380. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2523-2_35
- 80. John N., Viswanath A., Sowmya V., Soman K.P. (2016) Analysis of Various Color Space Models on Effective Single Image Super Resolution. In: Berretti S., Thampi S., Srivastava P. (eds) Intelligent Systems Technologies and Applications. Advances in Intelligent Systems and Computing, vol 384. Springer, Cham. https://doi.org/10.1007/978-3-319-23036-8_46
- 81. Haridas N., Aswathy C., Sowmya V., Soman K.P. (2016) Hyperspectral Image Denoising Using Legendre-Fenchel Transform for Improved Sparsity Based Classification. In: Berretti S., Thampi S., Srivastava P. (eds) Intelligent Systems Technologies and Applications. Advances in Intelligent Systems and Computing, vol 384. Springer, Cham. https://doi.org/10.1007/978-3-319-23036-8_45