



Dr. Shajee Mohan B S
Professor and Dean (Research)

Applied Electronics and Instrumentation Engg.,
Government Engineering College Kozhikode
Westhill, Kozhikode, Kerala-673005.

SHAJEE MOHAN B S received his Ph.D. from the department of Computer Science and Engineering, Indian Institute of Technology Madras, Chennai. He received M.Tech from Visvesvaraya Technological University (VTU) and B.Tech in Electronics and Communication Engineering from College of Engineering Trivandrum (CET) in 1989. He was the head of Department of Applied Electronics and Instrumentation Engineering, Government Engineering College Kozhikode, Kerala. He is currently a Professor in AE & I dept., and the Dean (Research) of GEC Kozhikode. He is also the Chairman (Electronics), M.Tech, Calicut cluster of Kerala Technological University. He is a life member of ISTE. His research interests include Machine learning, Kernel methods, Pattern Analysis, Speech Processing, Data Networks and Data Compression Algorithms. He serves as a reviewer of IEEE Access, Web of Science, Anais da Academia Brasileira de Ciências, Communication in Statistics, Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization and Computational Intelligence.

EDUCATION

- **College of Engineering, Trivandrum** Kerala, India
Bachelor of Technology in Electronics & Communication Engineering 1990 – 1994
- **Indian Institute of Science** Bangalore, India
Master of Engineering in Signal Processing 1998 – 2000
- **Indian Institute of Science** Bangalore, India
Ph. D. 2004 – 2010
Thesis: MDCT Domain Enhancements for Audio Processing
Advisor: T. V. Sreenivas

PROFESSIONAL EXPERIENCE

- **Government Engineering College, Wayanad** Kerala, India
Professor 2015-2016, 2021 – Ongoing
- **Government Engineering College, Barton Hill, Trivandrum** Kerala, India
Professor 2019 – 2021
- **College of Engineering, Thiruvananthapuram** Kerala, India
Assistant Professor, Associate Professor 1995 – 1996, 1998 – 2000, 2008 – 2014, 2016 – 2019
- **Government Engineering College, Idukki** Kerala, India
Associate Professor 2014 – 2015
- **Government College of Engineering, Kannur** Kerala, India
Associate Professor 2002 – 2008
- **Government Engineering College, Thrissur** Kerala, India
Assistant Professor 1996 – 1998

INTERNSHIPS

- **Ilmenau University of Technology** Ilmenau, Germany
Visiting Scientist May - June, 2017

LIST OF PUBLICATIONS

• Journals:

1. Aswathy Madhu, Suresh, K. AtResNet: Residual Atrous CNN with Multi-scale Feature Representation for Low Complexity Acoustic Scene Classification. *Circuits Syst Signal Process* (2022). <https://doi.org/10.1007/s00034-022-02107-2>
2. Aswathy Madhu, Suresh K., EnvGAN: a GAN-based augmentation to improve environmental sound classification, *Artificial Intelligence Review* (2022). <https://doi.org/10.1007/s10462-022-10153-0>
3. Reshmi Sasibhooshan, Suresh Kumaraswamy, Santhoshkumar Sasidharan, WavNet Visual saliency detection using Discrete Wavelet Convolutional Neural Network, in *Journal of Visual Communication and Image Representation*, Volume 79, 2021, 103236, ISSN 1047-3203, <https://doi.org/10.1016/j.jvcir.2021.103236>.
4. K. Suresh and T. V. Sreenivas, Linear Filtering in DCT IV/DST IV and MDCT/MDST Domain, *Signal Processing*, Volume 89 Issue 6, Pages 1081-1089, June, 2009.
5. K. Suresh and T. V. Sreenivas, Block Convolution Using Discrete Trigonometric Transforms and Discrete Fourier Transform, in *IEEE Signal Processing Letters*, vol. 15, pp. 469-472, 2008. doi: 10.1109/LSP.2008.923789

• Conferences:

1. Aswathy Madhu and Suresh K, "SiamNet: Siamese CNN Based Similarity Model for Adversarially Generated Environmental Sounds," 2021 IEEE 31st International Workshop on Machine Learning for Signal Processing (MLSP), 2021, pp. 1-6, doi: 10.1109/MLSP52302.2021.9596435.

2. Reshmi S. Bhooshan and Suresh K, "An Attention Based Wavelet Convolutional Model for Visual Saliency Detection," ICASSP 2021 - 2021 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2021, pp. 2240-2244, doi: 10.1109/ICASSP39728.2021.9413755.
3. Jazir S, P. A. Haris and Suresh K, "Efficient Channel Estimation of Massive MIMO Systems using Artificial Bee Colony Algorithm," 2020 IEEE Recent Advances in Intelligent Computational Systems (RAICS), 2020, pp. 190-194, doi: 10.1109/RAICS51191.2020.9332486.
4. N. Ambily and K. Suresh, "Classification of Brain MRI Images Using Convolution Neural Network and Transfer Learning," 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2020, pp. 1-6, doi: 10.1109/ICCCNT49239.2020.9225504.
5. Aswathy Madhu and Suresh Kumaraswamy, "Data Augmentation Using Generative Adversarial Network for Environmental Sound Classification," 2019 27th European Signal Processing Conference (EUSIPCO), A Coruna, Spain, 2019, pp. 1-5, doi: 10.23919/EUSIPCO.2019.8902819.
6. E. Sabu and K. Suresh, "Object Detection from Video Using Temporal Convolutional Network," 2018 IEEE Recent Advances in Intelligent Computational Systems (RAICS), Thiruvananthapuram, India, 2018, pp. 11-15, doi: 10.1109/RAICS.2018.8635089.
7. N. Davis and K. Suresh, "Environmental Sound Classification Using Deep Convolutional Neural Networks and Data Augmentation," 2018 IEEE Recent Advances in Intelligent Computational Systems (RAICS), Thiruvananthapuram, India, 2018, pp. 41-45, doi: 10.1109/RAICS.2018.8635051.
8. S. S. Shankar, L. Thomas, H. Pratheesh and K. Suresh, "Burning Zone Temperature Estimation of Rotary Kiln Using Flame Image Analysis in Cement Plants," 2018 International CET Conference on Control, Communication, and Computing (IC4), Thiruvananthapuram, 2018, pp. 255-259, doi: 10.1109/CETIC4.2018.8531041.
9. K. Suresh and R. A. Raj, "MDCT domain parametric stereo audio coding," 2012 International Conference on Signal Processing and Communications (SPCOM), Bangalore, 2012, pp. 1-4, doi: 10.1109/SPCOM.2012.6290038.
10. P. L. Deepa and K. Suresh, "An optimized feature set for music genre classification based on Support Vector Machine," 2011 IEEE Recent Advances in Intelligent Computational Systems, Trivandrum, Kerala, 2011, pp. 610-614, doi: 10.1109/RAICS.2011.6069383.
11. K. Suresh and T. V. Sreenivas, "Parametric stereo coder with only MDCT domain computations," 2009 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT), Ajman, 2009, pp. 61-64, doi: 10.1109/ISSPIT.2009.5407482.
12. S. Nithin, K. Suresh and T. V. Sreenivas, "Low Complexity Bit Allocation Algorithms for MP3/AAC Encoding" *Audio Engineering Society 124th convention*, New York, May 2008, preprint 7339.
13. K.Suresh and T. V. Sreenivas, "Linear Filtering in MDCT Domain" , *Audio Engineering Society 124th convention*, Amsterdam, May 2008, preprint 7340.
14. K. Suresh and T. V. Sreenivas, "Direct MDCT Domain Psychoacoustic Modeling," 2007 IEEE International Symposium on Signal Processing and Information Technology, Giza, 2007, pp. 742-747, doi: 10.1109/ISSPIT.2007.4458108.
15. K. Suresh and T. V. Sreenivas, "MDCT Domain Analysis and Synthesis of Reverberation for Parametric Stereo Audio", *Audio Engineering Society 123rd convention*, New York, October 2007, preprint 7281.
16. Suresh K and Ramakrishnan, A. G. "A DCT based approach to Estimation of Pitch." *Proceedings of ICMPs (2000)*.

PROFESSIONAL ACTIVITIES

- Senior Member of IEEE
- Volunteered as Chair, IEEE Signal Processing Society, Kerala Chapter (2018-2020)