Journal Publications

1. Leena Mary, Anil Antony, Ben P. babu, "Automatic Syllabification of Speech Signal using Vowel Onset Points and STE Valleys", International Journal of Speech Technology (IJST) Springer (Scopus indexed), 2017.
2. Tomson Devis and Manju Manuel, "Multirate and Filter bank Approaches in Digital Hearing Aid Design: A Review," IOP Conf. Series: Materials Science and Engineering, 396(1):1-8, 2018. (SCOPUS).
3. Sreekumar G., Leena Mary and Unnikrishnan A, Experimental verification of quadratic chirp detection using modified fractional Fourier transform, The Journal of Acoustical Society of India ((DRDO Refereed Journal), Vol. 45, No. 3, 2018 (pp. 141-149).
4. Sreekumar G., Leena Mary, and Unnikrishnan A, Doa Estimation of Broad-Banded Linear and Quadratic Chirps Using Nested and Co-Prime Arrays, International Journal of Computer Sciences and Engineering (UGC Refereed Journal), Vol.6, Issue-7, July 2018(pp.141-149).
5. Leena Mary, Extraction of Prosody for Automatic Speaker, Language, Emotion and Speech Recognition, Edition 2, Springer briefs in Speech Technology Springer, Netherlands, 2018, 978-3-319-91170-0.
6. Sreekumar G., Leena Mary and Unnikrishnan A, Beam-forming of broad-band QFM signals using generalized time-frequency transform, The Journal of Electronics, Taylor and Francis (SCI), DOI:10.1080/00207217.2019.1666307.
7. Sreekumar G., Leena Mary and Unnikrishnan A, Performance Analysis of Fractional Fourier Domain Beam-Forming Methods for Sensor Arrays, SmartScience, Taylor & Francis (Scopus Indexed), vol. 7, no. 1, pp. 28 - 38, January 2019.
8. Leena Mary and Deekshitha G., "Searching Speech Databases: Features, Techniques and Evaluation Measures", Springer Briefs in Speech Technology, Springer Nature, Switzerland AG. DOI: 978-3-319-97761-4 (2019).
9. Tomson Devis and Manju Manuel, "AWSAR Awarded Popular Science Stories by Scientists for the People" with ISBN: 978-81-7480-337-5. The book is the compilation of AWSAR 2019 stories.
10. Deepa Abraham,Manju Manuel, "Design of Transmultiplexer Filter Banks Using Ramanujan Sums", National Academy Science Letters,February 2020, DOI 10.1007/s40009-020-00943-x(SCIE).
11. Tomson Devis and Manju Manuel, "A low-complexity 3-level filter bank design for effective restoration of audibility in digital hearing aids," Biomedical Engineering Letters, 2020, pp. 1-9,10(4), 593-601,DOI10.1007/s13534-020-00167-4.
12. Abraham, D. and Manuel, M., "Signal periodicity detection using Ramanujan subspace projection", Journal of Electrical Engineering, vol. 71, no. 5, pp. 326–332, 2020. doi:10.2478/jee-2020-0044. Impact factor: 0.647.
13. Deekshitha G and Leena Mary, "A Two-Stage Spoken Term Detection System for UnderResourced Languages", IET Signal Processing, Vol. 14, Issue 9, pp. 602-613, Jul. 2020. (SCI/SCIE) DOI: 10.1049/iet-spr.2019.0131
14. Deekshitha G and Leena Mary, "Multilingual Spoken Term Detection: A Review," International Journal of Speech Technology, Springer, Vol. 23, No. 3, DOI: 10.1007/ s10772-020- 09732-9, Jul. 2020. (SCOPUS Indexed).
15. Starlet Ben Alex, Ben P. Babu and Leena Mary (2020), Attention and Feature Selection for Automatic Speech Emotion Recognition Using Utterance and Syllable-Level Prosodic Features, Circuits, Systems and Signal Processing, Springer, vol, 1–29 (SCI Indexed).
16. Deekshitha G and Leena Mary, "Multilingual Broad Phoneme Recognition and Language-independent Spoken Term Detection for Low-resourced Languages," Journal of King Saud University Computer and Information Sciences, Aug. 2021, doi: https://doi.org/10.1016/j.jksuci.2021.08.012 (SCIE).

17. Tomson Devis and Manju Manuel, "Hardware-efficient auto-reconfigurable hearing aids using 3-level octave interpolated filters for auditory compensation applications," Physical and Engineering Sciences in Medicine, Springer, 44(3):785–798, 2021. (SCIE IF:1.43).

18. Tomson Devis and Manju Manuel,,"Design and Implementation of a Smart Cost-effective Hearing Aid using Fractional Interpolated Filters", Journal of Information Science and Engineering,2021, (Published online). (SCIE).

19. Sreehari R. and Leena Mary, Automatic Short Utterance Speaker Recognition using Stationary Wavelet Coefficients of Pitch Synchronised LP Residual, International Journal of Speech Technology, Springer (SCOPUS Indexed), Sep. 2021, DOI: 10.1007/s10772-021-09895-z

International Conferences

1. Deekshitha G. and Leena Mary, "A study on Audio Search Techniques", International Conference on Signal and Speech Processing (ICSSP), Kollam, 2016, pp-267-271.

2. Veena Mohanan and Leena Mary, "Prosody Based Emotion Recognition using SVM", International Conference on Signal and Speech Processing (ICSSP), Kollam, 2016.

3. Christin Daniel and Leena Mary, "Fusion of Audio Visual Cues for Vehicle Classification", International Conference on Next Generation Intelligent Systems (ICNGIS), 2016.

4. Deekshitha G, Hansa Hathoon K I, & Leena Mary, "Automatic Spotting of Plosives and Fricatives from Speech signals", International Conference on Research Trends in Engineering, Science & Technology (IER-RTEST'17), July 2017.

5. Deekshitha G., Sreelakshmi K R, Ben P Babu and Leena Mary, "Development of Spoken Story Database in Malayalam Language," in Proc. IEEE Int. Conference on Electrical Energy Systems (ICEES-2018), Chennai, pp. 530-533, Feb. 2018

6. Deekshitha G, Hansa Hathoon K I, and Leena Mary, "A Novel Two-Stage System for Spotting Fricative and Plosive Regions from Continuous Speech," in Proc. IEEE Int. Conf. on Commn. and Signal Processing (ICCSP), Chennai, India, pp. 0775-0779, Apr. 2018.

7. Smitha Paul, Ben P. Babu and Leena Mary, Assessment of Articulation Disorder using Objective Quality Measures, International Conference on ICCPCCT-2018, IEEE International Conference on Control,Power, Communication and Computing Technologies, Kannur, India, vol.2, pp. 604-609.

8. Smitha Paul, Sreelakshmi K R, Anu George and Leena Mary, "Automation of Malayalam Articulation Test using Automatic Speech Recognition Techniques," Workshop on Speech Processing for Voice, Speech and Hearing Disorders (WSPD 2018) -Satellite event of Interspeech 2018, All India Institute of Speech and Hearing, Mysore, India.

9. Tomson Devis and Manju Manuel, "A 17-Band Non-uniform Interpolated FIR Filter Bank for Digital Hearing Aid," in Proc. IEEE International Conference on Communication and Signal Processing (ICCSP-18), Chennai, pp. 456-460, April 2018.

10. Shinimol Salim, Deekshitha G., Anu George and Leena Mary, Automatic Spotting of Vowels, Nasals and Approximants from Continuous Speech, International Conference on Control, Communication and Computing (IC4), Trivandrim, July 2018.

11. G. Deekshitha, and L Mary, "Speech Signal Based Broad Phoneme Classification and Search Space Reduction for Spoken Term Detection," TENCON 2018 - IEEE Region 10 Conference, Jeju, South Korea, pp. 1607-1612, Oct. 2018

12. Sreehari V. R. and Leena Mary , "Automatic Speaker Recognition using Stationary Wavelet Transform Coefficient of LP residual", IEEE Region 10 International Conference TENCON, South Korea, Oct 2018, pp-1601-1606.

13. Linta Antony, Sreekumar G., Leena Mary and Unnikrishnan A., "Novel Rank Enhancing Algorithm for 2D Sparse Arrays with Contiguous Coarrays", 8th International Conference on Advances in Computing and Communication (ICACC-2018), Procedia Computer Science 143 (2018) 277–284.

14. Starlet Ben Alex, Ben P. Babu and Leena Mary, Utterance and Syllable Level Prosodic Features for Automatic Emotion Recognition, International Conference on Recent Advances in Intelligent Computational Systems (RAICS), IEEE, (Xplore Digital Library), Thiruvananthapuram, Dec 2018

15. Nimmy George, Manju Manuel,"A Four Grade Brain Tumor Classification System Using Deep Neural Network," Second International Conference On Signal Processing and Communication, 2019, Karunya University, Coimbatore.

16. Anuja Prasad and Leena Mary, "A comparative study of different features for vehicle classification ", in 2019 International Conferences on Computational Intelligence in Data Science (ICCIDS),pp.1-5,IEEE,2019.

17. Betty Kurian, V. R Sreehari and Leena Mary, "PNCC for Forensic Speaker Recognition", International Conference on Microelectronics, Signals & Systems (ICMSS), Kollam, Kerala, 2019.

18. Remya Susan John, Starlet Ben Alex, Sinith M S and Leena Mary, "Significance of Prosodic Features For Automatic Emotion Recognition", *International Conference on Microelectronics, Signals & Systems (ICMSS), Kollam, Kerala, 2019.*

19. Rosemol Thomas, Anu George and Leena Mary, " Language Identification Using Deep Neural Network For Indian Languages", International Conference on Microelectronics, Signals & Systems (ICMSS), Kollam, Kerala, 2019.

20. Abidha Abdul Karim Rawther and Leena Mary, "Design and Implementation of Sobel Edge Detection in FPGA", International Conference on Microelectronics, Signals & Systems (ICMSS), Kollam, Kerala, 2019.

21. Sangeetha S, Deekshitha G, Anu George and Leena Mary, " Language Independent Broad Phoneme Classification", IEEE Int. Conf. on Intelligent Computing, Instrumentation and Control Technologies (ICICICT), Kannur, Kerala, July. 2019, pp. 1-6.

22. D. Abraham and M. Manuel, "Implementation of Sparse Ramanujan Sequence (SRS) based transforms in FPGA," 2021 International Conference on Communication, Control and Information Sciences (ICCISc), 2021, pp. 1-6, doi: 10.1109/ICCISc52257.2021.9484952.

23. Alishamol K. S., Fousiya T. T., Jasmine Babu K., Sooryadas M. and Leena Mary, "System for infant cry emotion recognition using DNN", *International Conference on Smart Systems and Inventive Technology (ICSSIT)", Thirunelveli, Tamil Nadu, pp. 865-870, Aug. 2020*

24. Arya.A,Manju Manuel,"Intelligence Quotient Classification from Human MRI Brain Images Using Convolutional Neural Network" , 12th IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2020),Nainital,Sep 25-26, 2020.

25. D. Abraham and M. Manuel, "Image Transmultiplexing using Ramanujan Sums," 2020 12th International Conference on Computational Intelligence and Communication Networks (CICN), 2020, pp. 70-74, doi: 10.1109/CICN49253.2020.9242550.

26. Deepa Abraham and Manju Manuel, Implementation of Sparse Ramanujan Sequence (SRS) based transforms in FPGA, " in Proc. 2021 International Conference on Communication, Control and 2140 Information Sciences ((ICCISc), Idukki, Kerala, pp. 1-6, June. 2021.

27. Greeshma Unnikrishnan, Anu George and Leena Mary, "Non-uniform Region Based Features for Automatic Language Identification" Fourth International Conference on Microelectronics, Signals and Systems ICMSS 2021, Kollam, Kerala, Nov 2021.

28. Devi Krishna, Leena Mary and Anu George, "Automatic Severity Evaluation of Articulation Disorder in Speech using Dynamic Time Warping", Fourth International Conference on Microelectronics, Signals and Systems ICMSS 2021, Kollam, Kerala, Nov 2021.

29. Deepa Abraham and Manju Manuel, "Sparse Ramanujan Sequence (SRS) transform based signal denoising, IEEE International Conference on next generation intelligent systems,29,30 &31 July 2022.