

Publications of Ajish K Abraham

A. Papers published in Peer Reviewed Journals

1. Siddhanna Janai., Shreekanth, T., Chandan, M., & **Ajish K Abraham** (2021). Speech-to-Speech Conversion: An Approach to Enhance the Speech Intelligibility of Dysarthric Speaker. *International Journal of Ambient Computing and Intelligence (IJACI)*, 12(1), 184-206. DOI: 10.4018/IJACI.2021010108. ISSN: 1941-6237.
2. **Abraham, A. K.**, & Ravishankar, M. S. (2020). A case study of acoustic intervention in classrooms. *Building Acoustics*. <https://doi.org/10.1177/1351010X20975765>. ISSN: 1351-010X. 28(1)
3. Swathy, Ravi., **Abraham, Ajish K.**, Sivaramakrishnan, V., Swapna, N., & Manohar, N. (2020). Analysis of Kannada speaker's tongue profile for articulatory simulation. *Journal of Child Language Acquisition and Development*, 8(2), 22-35. ISSN: 2148-1997. DOI: http://jclad.science-res.com/archives_full_issu/Vol_8_issue_2/JCLAD_FULL_ISSUE_8_2.pdf
4. Pushpavathi, M., **Abraham, Ajish K.**, Mahadeva Prasanna, S R., & Girish, K.S. (2018). Impact of timing of palatal repair on speech errors in children with CLP. *Journal of Child Language Acquisition and Development*, 6(4), 122-133. ISSN: 2148-1997. DOI: <https://juniperpublishers.com/gjo/pdf/GJO.MS.ID.555928.pdf>.
5. **Abraham, Ajish K.** (2018). Efficacy of a wiener filter based technique for speech enhancement in hearing aids. *World Academy of Science, Engineering and Technology, International Science Index, Medical and Health Sciences*, 12(11), 3498.
6. Pushpavathi, M., **Abraham, Ajish K.**, Mahadeva Prasanna, S.R., & Girish, K.S. (2018). Impact of timing of palatal repair on resonance, understandability, and acceptability in children with repaired cleft lip and palate. *Global Journal of Otolaryngology*, 16(1), 11-16, DOI: 10.19080/GJO.2018.16.555928. ISSN: 2474-7556.
7. Akshay, M., Devi, N., Renuka, C., & **Abraham, Ajish K.** (2018). Need for robotic resources in speech and hearing: An Indian study. *International Journal of Advances in Science, Engineering and Technology*, 6(1), 35-38. ISSN (print): 2321 –8991.
8. **Abraham, Ajish K.**, Abhisheka, T E., and Manohar, N. (2017). Current strategies for noise reduction in hearing aids - A review. *Journal of All India Institute of Speech & Hearing*, 36, 75-82. ISSN (print): 0973-662X. DOI: http://aiishmysore.in/ka/admin/file_att/jaiish_vol_36.pdf

9. Renuka, C., **Abraham, Ajish K.**, Devi, N., & Swapna, N. (2017). Robotic communicative tool in speech and hearing: A review. *International Journal of Innovative Research in Management, Engineering and Technology*, 2(5), 40-43. ISSN: 2350-0557. DOI: https://www.researchgate.net/profile/Devi_N/publication/317954329_ROBOTIC_COMMUNICATIVE_TOOL_in_Speech_and_Hearing_A_review/links/5b2ca3720f7e9b0df5ba6c6a/ROBOTIC-COMMUNICATIVE-TOOL-in-Speech-and-Hearing-A-review.pdf
10. **Abraham, Ajish K.**, Chandni, Jain., & Yashaswini, L. (2016). Effect of ambient noise on puretone hearing screening test conducted in Indian rural locations. *Journal of All India Institute of Speech & Hearing*, 35, 58-65. ISSN (print): 0973-662X. DOI: https://aiishmysore.in/en/admin/file_att/jaiish_vol_35.pdf.
11. Renuka, C., & **Abraham, Ajish K.** (2016). Computer intervention module for children with hearing impairment. *International Journal of Electrical, Electronics and Data Communication* 4(10), 19-24. ISSN: 2321-2950.
12. Hariprasad, B., Shreekanth, T., & **Abraham, Ajish K.** (2016). Reaction time measurement system for the assessment of persons with auditory processing disorder. *IOSR Journal of VLSI & Signal Processing* 6(04), 50-54. ISSN: 2319 – 4197
13. Apoorva, A., & **Abraham, Ajish K.** (2016). Algorithms for the enhancement of speech signal recorded in adverse conditions. *International Journal for Scientific & Engineering Research* 7(06), 1-6.
14. **Abraham, Ajish K.**, & Manohar, N. (2015). Efficacy of an assistive device for museum visitors with hearing impairment. *Journal of All India Institute of Speech & Hearing*, 34, 111-121.
15. Vijayashri, B Nagavi., **Abraham, Ajish K.**, Pushpavathi, M., & Rathnakara, S. (2015). Classification of the velopharyngeal dysfunction in children with cleft palate using cineradiographic images. *International Journal for Scientific Research & Development* 3 (04), 3058-3061.
16. **Abraham, Ajish K.**, & Surya, D. (2013). A new algorithm for frequency transposing in digital hearing aids. *Journal of All India Institute of Speech & Hearing*, 32, 183-190.
17. **Abraham, Ajish K.** (2012a). Effect of fast and slow compression on voice onset time in hearing aid processed speech. *Journal of All India Institute of Speech and Hearing*, 31, 202-208.

18. **Abraham, Ajish K.** (2012b). Transformation of voice onset time in hearing aid processed speech and its relation with number of channels in hearing aids. *Journal of All India Institute of Speech and Hearing*, 31, 220-225.

B. Chapters Published in Books

1. M. Pushpavathi, **Abraham, Ajish K.**, S. R. Mahadeva Prasanna, and K. S. Girish. (2020). Perceptual Judgments of Resonance, Speech Understand ability, and Speech Acceptability in Children with Repaired Cleft Palate Across Words and Sentences. In Mahavir Singh & Yasser Rafat (Eds.), *Recent Developments in Acoustics*, (pp. 75-83). Springer.
2. **Abraham, Ajish K.** (2017). ICT-Based Outreach Programs: AIISH Model. In B. P. R. Narasimharao, E. Wright, S. Prasad & M. Joshi (Eds.), *Handbook of Research on Science Education and University Outreach as a Tool for Regional Development*, (pp. 196-205). Hershey, PA, USA: IGI Global.
3. **Abraham, Ajish K.** (2013). Technology of Cochlear Implant: An Overview. In Madhuri, Gore (Ed.), *ISHA Monograph on The Cochlear Implant: An Overview*, 13(2), (pp. 5-12) Mysore: Indian Speech and Hearing Association.
4. **Abraham, Ajish K.**, Savithri, S.R., & Basavaraj, V. (2012). Virtual Classroom-based Model for Rehabilitation of Persons with Communication Disorders. In Tiwari, M.D., Shah, S., & Tiwari, I (Eds.), *Disability Rehabilitation Management Through ICT*, (pp. 149-157). Aalborg, Denmark: River Publishers.
5. Subramanya, M.B., & **Abraham, Ajish K.** (2012). Active Noise Cancellation of HVAC System Noise in Audiometric Test Rooms. In K. Shama., K. P. Nayak & S. Bhat (Eds.), *Electronic Design and Signal Processing* , (pp. 48-52). New Delhi: Narosa Publishing House, Pvt. Ltd.
6. **Abraham, Ajish K.**, & Basavaraj, V. (2007). Technology enhanced distance learning – The AIISH Model. *Changing Societal Demands and Adopting Teaching – Learning Systems in Higher Education to reach out.* 119-124. University of Mysore.
7. Gunjan, Chand., Basavaraj, V., & **Abraham, Ajish K.** (2006). Acoustic Analysis of the Speech Processed Through Three Amplification Strategies and Their Effect on Speech Recognition Scores of Individual with Severe Hearing Impairment. *Student Research at AIISH, Mysore*, Volume V Part A, 78-92.

C. Papers Published in National/International Conference/Seminar Proceedings

1. Abraham, A.K., Sivaramakrishnan, V., Swapna, N., Manohar, N. (2021). Image-Based Assessment of Jaw Parameters and Jaw Kinematics for Articulatory Simulation: Preliminary Results. *Proc. Interspeech 2021*, 621-625, doi: 10.21437/Interspeech.2021-1155.
2. **Abraham, Ajish K.**, Pushpavathi, M., Sreedevi, N., Navya, A. & S R M Prasanna (2020). Spectral Moment and Duration of Burst of Plosives in Speech of Children with Hearing Impairment and Typically Developing Children – A comparative Study. *Proc. Interspeech 2020*, 4981-4985, DOI: <http://dx.doi.org/10.21437/Interspeech.2020-1805>.
3. **Abraham, Ajish K.**, Pushpavathi, M., Sreedevi, N., & Navya, A. (2019). Exploring Acoustic Measures of Vowels (VSA, FCR3, VAI4, VFR) in Children with Hearing Impairment. In Sasha Calhoun, Paola Escudero, Marija Tabain & Paul Warren (eds.) *Proceedings of the 19th International Congress of Phonetic Sciences, Melbourne, Australia 2019* (pp. 1064-1068).
4. Renuka, C., Swapna, N., Bhavana, P V., Prabha, L., & **Abraham, Ajish K.** (2019). Touch Screen: An interactive platform to learn arithmetic concepts for hearing impaired children attending preschool: Case Study, *2019 1st International Conference on Advances in Information Technology (ICAIT)*, Chikmagalur, India, 2019, pp. 382-388. DOI: 10.1109/ICAIT47043.2019.8987275.
5. Hegde, Nidhi., Bullakkanavar, Rajat., Renuka, C., Veena, R., & **Abraham, Ajish K.** (2018). A Technical Approach to Find Defects during Articulation of Phonemes. *Proceedings of 3rd International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques (ICEECCOT-2018)*.355
6. CM, V., Prasanna, S R M., **Abraham, Ajish K.**, M, P., K S, G. (2018). Detection of Glottal Activity Errors in Production of Stop Consonants in Children with Cleft Lip and Palate. *Proc. Interspeech 2018*, 382-386, DOI: 10.21437/Interspeech.2018-1665.
7. Jaisinghani, Priyanka., Manjula, P., & **Abraham, Ajish K.** (2018). Systematic Review on the Performance Evaluation of Speech Enhancement Strategies in Individuals with Normal Hearing and Those with Hearing Loss. *Proceedings of International Workshop on Speech Processing for Voice, Speech and Hearing Disorders, A Satellite Workshop of Interspeech 2018, 8-9, September 2018, All India Institute of Speech & Hearing, Mysuru*
8. Vikram, C M., Pushpavathi, M., **Abraham, Ajish K.**, Girish, K S., & Mahadeva Prasanna, S R. (2018). Spectro-Temporal Analysis of Stop Consonant Production

Errors in Children with Cleft Lip and Palate. *Proceedings of International Workshop on Speech Processing for Voice, Speech and Hearing Disorders, A Satellite Workshop of Interspeech 2018, 8-9, September 2018, All India Institute of Speech & Hearing, Mysuru.*

9. Dubey, Akhilesh Kumar., Pushpavathi, M., **Abraham, Ajish K.**, Girish, K S., Mahadeva Prasanna, S R., & Dandapat, S. (2018). Sinusoidal model based features for analysis of hypernasality severity. *Proceedings of International Workshop on Speech Processing for Voice, Speech and Hearing Disorders, A Satellite Workshop of Interspeech 2018, 8-9, September 2018, All India Institute of Speech & Hearing, Mysuru*
10. Kalita, Sishir., Pushpavathi, M., **Abraham, Ajish K.**, Girish, K S., Mahadeva Prasanna, S R., & Dandapat, S. (2018). Relative contribution of hypernasality, consonant production errors, and voice disorders on the intelligibility of cleft lip and palate speech. *Proceedings of International Workshop on Speech Processing for Voice, Speech and Hearing Disorders, A Satellite Workshop of Interspeech 2018,8-9, September 2018, All India Institute of Speech & Hearing, Mysuru*
10. **Abraham, Ajish K.**, & Ravishankar, M. S. (2016). Cost Effective Acoustic Solutions to Optimize Reverberation Time. *Proceedings of International Symposium on Acoustics for Engineering Applications, 17-19, November 2016, KIIT College of Engineering, Gurgaon.*
11. **Abraham, Ajish K.**, & Jain, Chandni. (2016). Indigenous Technology for providing hearing screening services to the villager's doorstep. *Proceedings of 103rd Indian Science Congress, 3-7, January 2016, University of Mysore, Mysore.*
12. **Abraham, Ajish K.**, Rajarajan, R., & Kalaiselvi, V T. (2015). Preference to RIC – A paradigm shift in hearing aid adoption: A 10 years report. *Proceedings of 8th National Women's Science Congress*, (pp. 40), Bengaluru, India.
13. **Abraham, Ajish K.**, & Manohar, N. (2014). Assistive technology to override poor acoustics for museum visitors with hearing impairment. *Proceedings of the National Symposium, NSA 2014, 12-14, November 2014, AIISH, Mysore.*
14. **Abraham, Ajish K.**, & KalaiSelvi, V T. (2014). Hearing aids with artificial intelligence – Efficacy in speech signal processing. *Proceedings of the International Symposium, FRSM 2014, 13-14, March 2014, AIISH, Mysore, 5-9.*
15. KalaiSelvi, V T., & **Abraham, Ajish K.** (2013). Efficacy of frequency transposition in digital hearing aids. *Proceedings of National Conference of Advances in Engineering and Technology (NCAET)*, 267-272.

16. **Abraham, Ajish K.** (2008). Principles and theoretical constructs in calibration of audiological measurement equipments: OAE, Immittance & ABR. *Proceedings of the Workshop on "Standards & Calibration of Audiologic & Speech Equipment"*, Sweekar, Secudnerabad. 30-38.
17. **Abraham, Ajish K.** (2008). Care & maintenance of electronic devices in a classroom for children with hearing impairment. *Proceedings of National Workshop on Setting up Classrooms for Children with Hearing Impairment, AIISH, Mysore*, 4.1 – 4.11.
18. **Abraham, Ajish K.** (2008). An ideal classroom for children with hearing impairment. *Proceedings of National Workshop on Setting up Classrooms for Children with Hearing Impairment, AIISH, Mysore*, 2.1 – 2.11.
19. **Abraham, Ajish K.** (2001). Touch sensing technique in data acquisition and display system for anesthesia ventilator. *Proceedings of International Conference on Bio medical Engineering, Chennai*, 63-66.
20. **Abraham, Ajish K.** (2000). Real time image acquisition system for ultrasonic scanner. *Proceedings of National conference on Bio medical Engineering, Roorkee*, 288-292.
21. **Abraham, Ajish K.** (1999). Two dimensional image measurement system. *Proceedings of International Conference and Exhibition on Ultrasonics (IECU – 99), New Delhi*. 39-42.
22. **Abraham, Ajish K.** (1997). Design of a RF amplifier for ultrasonic medical imaging. *Proceedings of National Conference on Advances in Biomedical Engineering, Kochi*. 26-29.