

Dr.C.JEYALAKSHMI

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EDUCATIONAL QUALIFICATION:

- 2015** **PhD** - Anna University – “Analysis of voice disorders and recognition of Hearing impaired children’s Speech in Classical Tamil language”.
- 2008** **M.E** in Communication Systems (I class with distinction), Saranathan College of Engineering (Anna University), Trichy.
- 2002** **B.E** in Electronics and Communication Engg. (I class), Regional Engineering College (Bharathidasan University), Trichy-15.
- 1984** **Diploma** in Electronics Engineering, PNRM Polytechnic, Trichy-2.

AREAS OF INTEREST:

Speech signal processing, Image processing, Microwave Engineering, Antennas and wave Propagation, Neural networks.

Recognized supervisor (Ref. No.2740057) of Anna University under the faculty of Information and Communication Engineering.

EXPERIENCE:

Total Teaching Experience in Engineering College: 13 .4 years.

Total Teaching Experience in Industrial training centre: 14 years 4 months.

Apprentice Trainee: One year

PAPERS PRESENTED IN CONFERENCES:

NATIONAL:

1. **Jeyalakshmi, C** Revathi, A “Voice recognition using supervised neural network” at Saranathan College of Engineering, Trichy on 16.2.2008.
2. **Jeyalakshmi, C** Revathi, A “Analysis of features of isolated word recognition using supervised neural network” at Aarupadai Veedu Institute of Technology, Chennai on 8.5.09 & 9.5.09.

INTERNATIONAL:

1. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2009, „Application of supervised Neural Network to Deaf speech recognition“, International conference on signals, systems and communication (ICSSC), Anna university, Chennai, pp.209-217.
2. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2010, „Speech Recognition of Deaf and Hard of Hearing People Using Hybrid Neural Network“, International Conference on Mechanical and Electronics Engineering (ICMEE 2010), Kyoto, Japan, (IEEE sponsored), vol.1, pp. 83-87.
3. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2011, „Transcribing Deaf and hard of hearing Speech Using Hidden Markov Model“, International Conference on Signal Processing, Communication, Computing and Networking Technologies (ICSCCN, IEEE sponsored), pp. 326-331.
4. Revathi, A **Jeyalakshmi, C** Karthick M „Speaker Independent Emotion recognition using Combined Feature and Spectral Analysis“ Second International Conference on Sustainable Computing Techniques in Engineering, Science and Management (SCESM-2017) -27-28 January 2017.
5. Revathi, A **Jeyalakshmi, C** Muruganantham, T “Perceptual Features based Rapid and Robust Language Identification System for Various Indian Classical Languages”, „International conference on computational vision and Bio inspired computing“, ICCVBIC, sep. 2017.
6. Revathi, A **Jeyalakshmi, C** “Robust Speech Recognition in Noisy Environment using Perceptual Features and Adaptive Filters”, „International Conference on Communication and Electronics Systems (ICCES 2017)“, oct-2017.
7. Revathi, A **Jeyalakshmi, C** “Comparative Analysis on the Use of Features and Models for validating Language Identification System”, International Conference on Inventive Computing and Informatics (ICICI 2017), Nov.2017.
8. **Jeyalakshmi, C** Murugeshwari, B Karthick, M, “HMM and K-NN based Automatic Musical Instrument Recognition” Proceedings of 2nd International conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud,2018),IEEE sponsored conference.

PAPERS PUBLISHED IN JOURNALS:

1. **Jeyalakshmi, C**, Revathi, A & Krishnamurthi, V 2010, „Deaf speech assessment using digital processing techniques”, Signal & Image Processing : An International Journal (SIPIJ), AIRCC-Academy & Industry Research Collaboration Center (AIRCC), India, vol.1, no.1, pp.14-25.
2. **Jeyalakshmi, C**, Revathi, A & Krishnamurthi, V 2012, „Building robust HMM models for speech recognition of the hearing impaired”, EE Times-India | eetindia.com, eMedia Asia Ltd., pp. 1 -11. (Impact factor: 0.011)
3. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2013, „Effect of states and mixtures in HMM model and connected word Recognition of Profoundly deaf and hard of hearing speech”, International Journal of Engineering and Technology (IJET), vol. 5, no 6, pp. 4938 to 4946.
4. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2013, „Performance evaluation of the hearing impaired speech recognition in noisy environment”, International review on computers and software, vol. 8, no. 10, pp. 2467-2476. (Impact factor: 0.486)
5. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2014, „Development of speech recognition system in native language for hearing impaired”, Journal of Engineering research, (Kuwait journal of science and Engineering), vol. 2, no.2, pp. 81-99. (Impact factor: 0.059)
6. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2015, „Alphabet model-based short vocabulary speech recognition for the assessment of profoundly deaf and hard of hearing speeches”, International Journal of Modelling, Identification and Control, Vol.23, No.3, pp.278-286 (Impact factor: 1.365).
7. **Jeyalakshmi, C** Revathi, A & Krishnamurthi, V 2015, „Investigation of voice disorders and recognizing the speech of children with hearing impairment in classical Tamil language”, International Journal of Biomedical Engineering and Technology (IJBET), Vol.17, No.4, pp.356 to 370 (Impact factor: 0.374).
8. **Jeyalakshmi, C** Revathi, A & Venkataramani, Y „Integrated models and features based speaker independent emotion recognition” International journal of Telemedicine and clinical practices (IJTMCP), Vol.1, No.3, pp.277-291, 2016.
9. **Jeyalakshmi, C** Murugeswari, B Karthick, M „Recognition of Emotions in Berlin speech: A HTK based approach for speaker and Text independent

emotion recognition" Pakistan journal of Bio-technology, Vol.14(1), pp 63-69,2017. (Impact factor:0.374).

10. Karthick, M Muruganantham, T **Jeyalakshmi, C** Revathi, A „A high performance HTK based language identification system for various Indian classical languages" Pakistan journal of Bio-technology, Vol.14(1), pp 77-81, 2017. (Impact factor: 0.374).
11. Revathi, A **Jeyalakshmi, C** Karthick M „Speaker Independent Emotion recognition using Combined Feature and Spectral Analysis" International journal of control theory and applications, Vol.10(6), pp 483-492, 2017. (Impact factor: 0.097).
12. Revathi, A **Jeyalakshmi, C** 2017, „A challenging task in recognizing the speech of the hearing impaired using normal hearing models in classical Tamil language", Journal of Engineering research, (Kuwait journal of science and Engineering, SCI-E),vol.5 no.2, pp.110-128, June2017(Impact factor: 0.693).
13. **Jeyalakshmi, C** Revathi, A „Efficient Speech Recognition System for Hearing Impaired Children in Classical Tamil Language" International Journal of Biomedical Engineering and Technology (IJBET), vol.16(1), 84-100, 2018 (Impact factor: 0.430)
14. Revathi, A **Jeyalakshmi, C** Muruganantham, T "Perceptual Features based Rapid and Robust Language Identification System for Various Indian Classical Languages", In: Hemanth D., Smys S. (eds) Computational Vision and Bio Inspired Computing. Springer Lecture Notes in Computational Vision and Biomechanics book series (LNCVB), vol. 28, pp.291-305,2018.
15. Revathi, A **Jeyalakshmi, C** "Robust Speech Recognition in Noisy Environment using Perceptual Features and Adaptive Filters", Proceedings of „International Conference on Communication and Electronics Systems (ICCES 2017), IEEE explore, pp.692-696, 2018.
16. Revathi, A **Jeyalakshmi, C** "Comparative Analysis on the Use of Features and Models for validating Language Identification System", Proceedings of International Conference on Inventive Computing and Informatics (ICICI 2017), IEEE explore, pp.693-698,Nov.2017.
17. Revathi A **Jeyalakshmi, C** Thenmozhi, K "Person authentication using speech as a biometric against play back attacks", Multimedia tools and applications, (SCI-E, Springer, impact factor 1.541)

18. Anitha, S, **Jeyalakshmi, C**, 2018, Audio Watermarking Of Images Using LSB technique, IOSR Journal of Electronics and Communication Engineering (IOSR-JECE), PP 18-22.
19. Subhasri, G **Jeyalakshmi, C**, 2018, "A Study of IoT based Solar Panel Tracking System", Advances in Computational Sciences and Technology, Volume 11, Number 7, pp. 537-545.
20. Revathi A **Jeyalakshmi, C** 2018, "Emotions recognition: different sets of features and models", International Journal of Speech Technology, Springer, <https://doi.org/10.1007/s10772-018-9533-6>.
21. Revathi, A Sasikaladevi, N Nagakrishnan, R **Jeyalakshmi, C** 2018, Robustemotion recognition from speech: Gamma tone features and models, International Journal of Speech Technology, Springer, 21(8), DOI:[10.1007/s10772-018-9546-1](https://doi.org/10.1007/s10772-018-9546-1)
22. Revathi, A., Sasikaladevi, N., **Jeyalakshmi, C** 2018, Digital speech watermarking to enhance the security using speech as a biometric for person authentication, International Journal of Speech Technology, Springer, vol.21(4), pp.1021-1031,2018.

PROFESSIONAL RECOGNITION/AWARD/PRIZE/CERTIFICATE RECEIVED

- Many times received cash prize for 100% and above 90% result produced.
- Received NPTEL online course certificate for the course „Basic building blocks of Microwave Engineering" and for „Basic Electronics". Received Elite certificate for Digital image processing of Remote sensing data, Introduction to IOT.
- Life time member in ISTE
- Member in IEEE
- Life time Member in IEI.

Funds received

1. **Rs.40,000** has been received from Indian council of Medical research, New delhi in June 2017, to conduct two days seminar on Medical image analysis for the Engineering college students and faculties, Medical college students and doctors, on 11th and 12th august.

2. **Rs.20,000** has been received from TNSCST Tamilnadu, in august 2017, to conduct two days seminar on „Recent trends in Wireless Technology and related research topics“, August 17th & 18th .
3. **Sponsorship** received from Anna university Chennai, to conduct one week FDTP on Adhoc and sensor networks from Nov.20 – 26, 2017.

PATENTS

1. Methods and systems for facilitating selection of clothes conforming to a body size
2. Customized speech recognition system
3. Fruit quality monitoring system
4. Knuckle pattern monitoring device