

Dr. Jayanna H.S.

Professor, Dept. of Information Science and Engineering, SIT

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Education

	Degree	Year	Institute
1	Ph.D.	2010	Indian Institute of Technology, Guwahati
2	M.E.	1995	University Visvesvaraya College of Engineering, Bangalore
3	B.E.	1992	Dr. Ambedkar Institute of Technology, Bangalore

Professional Experience

	Date (from-to)	Designation	Organization
1.	Since Dec. 2022	Dean (Academic)	SIT Tumkur, Karnataka, India
2.	Jan. 2019 – Dec. 2021	Professor and Head, Dept. of ISE	SIT Tumkur, Karnataka, India
3.	Jan. 2016 – Dec. 2019	Professor, Dept. of ISE	SIT Tumkur, Karnataka, India
4.	Feb. 2010- Dec. 2015	Professor and Head, Dept. of ISE	SIT Tumkur, Karnataka, India
5.	July 2009 to Jan. 2010	Assistant Professor and Head, Dept. of ISE	SIT Tumkur, Karnataka, India
6.	July 2005 to April 2009	Ph.D. Research Scholar, Dept. of ECE	IIT Guwahati, India
7.	July 2006 to July 2007.	Assistant Professor, Dept. of ISE	SIT Tumkur, Karnataka, India
8.	Jan. 2001 to June 2006.	Senior Lecturer, Dept. of ISE	SIT Tumkur, Karnataka, India

9.	May 1999 to Dec. 2000	Assistant Professor and Head, Dept. of ISE	KIT Tiptur, Karnataka, India.
10.	April 1997 to April 1999	Lecturer and Head, Dept. of ISE	KIT Tiptur, Karnataka, India.
11.	Sep 1995 to Mar. 1997.	Lecturer, Dept. of CSE	KIT Tiptur, Karnataka, India.
12.	Oct. 1994 to Aug. 1995.	Lecturer, Dept. of ECE	KIT Tiptur, Karnataka, India.

Positions held

1. Dean (Academic) since Dec. 2022 at SIT, Tumakuru
2. Convener of the committee of institute Strategic planning 2022-27 since Feb. 2022
3. Professor and Head, Dept. of ISE [IT], SIT Tumkur, Karnataka, India, from Jan 2019-Dec.2021
4. Professor and Head, Dept. of ISE [IT], SIT Tumkur, Karnataka, India, from Feb. 2010-Dec.2015
5. Asst. Prof, and Head, Dept. of ISE [IT], KIT, Tiptur, Karnataka, India, from 1996-2000

Affiliations of Professional organizations

- FIEI, MISTE

Awards and Honors

- Sunitha M R, **H S Jayanna**, Ramegowda , "Tracking Multiple Moving Object Based Combined Color Feature in Video Sequence," proc. of IEEE International Conference on Computational Intelligence and Computing Research (ICCIC), pp. 846-850, Dec. 2014, Coimbatore, Tamil Nadu, India
- Awarded by Infosys, Bangalore for contribution to Infosys Campus Connect program

Courses Taught

Undergraduate Courses

- Machine learning and Artificial Intelligence
- Image processing
- Object oriented Programming in C++
- Programming in C
- Data structures
- Computer networks
- Computer Architecture
- Computer Organization
- Multimedia communication

Postgraduate Courses

- Stenography and watermarking

- Network Security
- Multimodal Biometrics
- Wireless communication

Research Guidance

Sl. No	Name of the Scholar	Title	Year of completion/ carrying out
1.	Mr. Praveen Kumar P S	Robust speaker identification in the context of text independent by collecting the real time speech data under noisy and reverberant environment	2023
2.	Mr. T.R. Arunkumar	Automatic Recognition, Classification and Estimation of Different Types of Psoriasis Disorder.	2023
3.	Mr. Chethan B K	Mobile Agents Security in Mobile Adhoc Networks	2021
4.	Mr. Thimmaraja Yadava G	Speech recognition Under Uncontrolled Environment	2020
5.	Mr. Nagaraj B G	Multilingual Speaker Identification	2014
6.	Mrs. Jayanthikumari T R.	Speaker Verification with the Constraint of Limited data	2018
7.	Mrs. Sunitha M R	An efficient method for object tracking in Video Sequence	2018
8.	Mr. Laishram Rahul	Automatic Speech Recognition for under resource languages	2020
9.	Mr. Janardhan C N	Gender Identification based on Digital Images of femur and pelvic bones using deep learning techniques.	2022
10.	Mrs. Soumya C S	A novel approach to the study of cardiac structures and prediction of congenial Heart Diseases using Deep Neural Networks.	2022

Research Areas

- Speech processing
- Image processing
- Multimodal Biometrics

Sponsored Projects

	Organization	Title	Amount in `	Role
2021-2023	CAIR-DRDO, Bangalore	Analysis of speech signal transmission using non-spread spectrum based Radios	990000/-	Principal Investigator (completed)
2019-2020	Dept. of IT, BT and S&T, Govt. Karnataka	Artificial Intelligence Controlled Video Monitoring	275000/-	Principal Investigator (completed)
2014-2018	DeitY, Govt. of India	Speech based access of Agricultural Commodity Prices and Weather Information in 12 Indian Languages/Dialects Consortium-Phase II	4255000/-	Principal Investigator (completed)
2012-2013	CAIR-DRDO, Bangalore	Performance Evaluation of open source ASR tools with creation of speech corpus for Indian English and Hindi.	990000/-	Principal Investigator (Completed)
2010-2012	VTU, Belagavi	Design and Development of Multilingual Speaker Recognition with the constraint of limited data	592000/-	Principal Investigator(completed)

Publications

Journals

- C S, Sowmya., & H S, Jayanna. (2025). HiGMA-DADCN: Hirudinaria granulosa multitropic algorithm optimised double attention enabled deep convolutional neural network for psoriasis classification. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization*, 13(1).<https://doi.org/10.1080/21681163.2025.2485100>
- Thimmaraja Yadava G., Nagaraja B.G., **H.S. Jayanna**, Development of noise robust real time automatic speech recognition system for Kannada language/dialects, *Engineering Applications of Artificial Intelligence*, Volume 135, 2024, 108693, ISSN 0952-1976,
- Yadava, G.T., Nagaraja, B.G. and **Jayanna H S**”Enhancements in encoded noisy speech data by background noise reduction, *Intelligent System with Applications*, **Volume 20, Year 2023**
- Thimmaraja Yadava G, Nagaraja B G and **H S Jayanna**, “Enhancement in continuous Kannada ASR system by Background noise elimination”, *International Journal Circuits, systems and Signal Processing, Springer*, vol. 41, pp. 4041–4062, Feb. 2022 (Q1 Journal).
- Thimmaraja Yadava G, Nagaraja B G and **H S Jayanna**, “A spatial Procedure to spectral subtraction for speech enhancement”, *International Journal of Multimedia tools and applications, Springer*, vol. 81, no. 1, pp. 23633–23647, March. 2022 (Q1 Journal).

- Praveen Kumar P S and H S Jayanna, "Development of speaker-independent automatic speech recognition system for kannada language," *Indian journal of Science and Technology*, vol. 15, no. 08, pp. 333–342, 2022.
- T R Arunkumar and H S Jayanna, "A Novel Light-Weight Approach for the Classification of Different Types of Psoriasis Disease Using Depth Wise Separable Convolution Neural Networks" *Indian journal of Science and Technology*, vol. 15, no. 13, pp. 561–569, 2022.
- Thimmaraja Yadava G, Nagaraja B G and **H S Jayanna**, "Speech enhancement and encoding by combining SS-VAD and LPC", *International Journal of Speech Technology, Springer*, vol. 24, no. 1, pp. 165–172, Jan. 2021 (Q1 Journal).
- Thimmaraja Yadava G and H S Jayanna, "Enhancements in automatic Kannada speech recognition system by background noise elimination and alternate acoustic modelling", *International Journal of Speech Technology (IJST), Springer*, vol. 23, no. 1, pp. 149–167, 2020 (Q1 Journal).
- Praveen Kumar P S and **H. S. Jayanna**, "Creation and Instigation of Triphone based Big-Lexicon Speaker-Independent Continuous Speech Recognition Framework For Kannada Language" in *International Journal of Innovative Technology and Exploring Engineering (IJITEE) (Elsevier Scopus indexed journal) Vol. 9, no.2S, pp. 2278-3075, Dec. 2019*
- Thimmaraja Yadava G and **H S Jayanna**, "Speech Enhancement by Combining Spectral Subtraction and Minimum Mean Square Error-Spectrum Power Estimator based on Zero Crossing", in *International Journal of Speech Technology (IJST), Springer*, Volume 22, no. 03, pp 639–648, April 2018 (Q1 Journal).
- Thimmaraja Yadava G and **H S Jayanna**, "Creation and Comparison of Language and Acoustic Models using Kaldi for Noisy and Enhanced Speech Data", in *International Journal of Intelligent Systems and Applications (IJISA- Elsevier Scopus Indexed)*, vol. 10, no. 3, pp. 22-32, March 2018 (Q2 Journal).
- Thimmaraja Yadava G and **H. S. Jayanna**, "A spoken query system for the agricultural commodity prices and weather information access in Kannada language", in *International Journal of Speech Technology (IJST), Springer*, vol. 20, issue. 3, pp. 1-10, June 2017 (Q1 Journal).
- Thimmaraja Yadava G and **H. S. Jayanna**, "Improvements in Spoken Query System to Access the Agricultural Commodity Prices and Weather Information in Kannada Language/Dialects" in *Journal of Intelligent Systems (JISYS- Elsevier Scopus Indexed)*, Oct. 2018 (Q1 Journal).
- Praveen Kumar P S, Thimmaraja Yadava G and **H S Jayanna**, "Continuous Kannada Speech Recognition System Under Degraded Condition", in *Circuits, Systems and Signal Processing (CSSP), Springer*, , July. 2019 (Q1 Journal).
- Jayanthi Kumari T. R and **H. S. Jayanna.**, "i-vector based speaker verification for short utterances," Accepted for publication in *Journal of Intelligent System (JISYS)*, Jan. 2018. (Scopus Indexed)

- Jayanthi Kumari T. R and **H. S. Jayanna.**, “Limited Data Speaker Verification: Fusion of Features,” *Journal of Electrical and Computer Engineering*, vol. 7, no. 6, 2017. (Scopus Indexed)
- Sunitha M R, **H S Jayanna**, Ramegowda, “Human path tracing using combined Color and Centroid feature in a Video”, *International Journal of Applied Engineering Resea* Vol. 12, No. 9, pp. 1848 – 1854, 2017.
- Jayanthi Kumari T. R and **H. S. Jayanna.**, “Speaker verification under the constraint of limited data,” Accepted for publication in *Journal of Information Processing System (JIPS)*. (Scopus Indexed).
- Sunitha M R, **H S Jayanna**, Ramegowda, “Hierarchical Graph based Segmentation and Consensus based Human Tracking Technique,” accepted for publication in *Journal of Information Processing System (JIPS)*. (Scopus Indexed).
- Sunitha M R, **H S Jayanna**, Ramegowda, “Human Tracking using Edge and Camera Extracted Pattern feature for Denser Crowded Videos”, *International Journal of Engineering and Future Technology*, Vol. 8, No. 8, pp. 10 – 17, 2016.
- Nagaraja B. G. and **H. S. Jayanna**, “Feature extraction and 6odelling techniques for multilingual speaker identification – A review,” *Int. J. Signal and Imaging Systems Engineering (Inder science)*, Vol. 9, No. 2, 2016
- Nagaraja B. G. and **H. S. Jayanna**, “Multilingual speaker identification by combining evidence from LPR and multitaper MFCC,” *Journal of Intelligent Systems (JISYS)*, vol. 22, no. 3, pp. 241-251, Jun. 2013.
- Nagaraja B. G. and **H. S. Jayanna**, “Kannada language parameters for speaker identification with the constraint of limited data,” *International Journal of Image, Graphics and Signal Processing (IJIGSP)*, vol. 5, no. 9, pp. 14-20, Jul. 2013.
- Nagaraja B. G. and **H. S. Jayanna**, “Combination of features for multilingual speaker identification with the constraint of limited data,” *International Journal of Computer Applications (IJCA)*, vol. 70, no. 6, pp. 1-6, May 2013.
- Nagaraja B. G. and **H. S. Jayanna**, “Text-independent mono and cross lingual speaker identification with the constraint of limited data,” *International Journal of Computational Intelligence and informatics (IJCI)*, vol. 1, no. 4, pp. 64-71, Mar. 2012.
- P Krishnamoorthy, **H. S. Jayanna** and S. R. M. Prasanna, “Speaker Recognition under Limited Data Condition by Noise Addition,” *Experts Systems with Applications (Elsevier)*, Vol. 38, pp. 13487-13490, 2011.
- **H. S. Jayanna** and S. R. M. Prasanna, “Multiple frame size and rate analysis for speaker recognition under limited data condition,” *IET Signal Processing*, Vol. 3(3), pp. 189-204, 2009.
- **H. S. Jayanna** and S. R. M. Prasanna, “Analysis, Feature Extraction, Modelling and Testing Techniques for Speaker Recognition – A Review,” *IETE Technical Review*, Vol. 26 (3), pp. 181-190, 2009.
- **H. S. Jayanna** and S. R. M. Prasanna, “Modelling techniques for speaker recognition under limited data condition,” *Sadhana-Academy proceedings in engineering sciences (Springer)*, Vol. 34(3), pp. 717-728, Oct. 2009.

- **H. S. Jayanna**, S. R. M. Prasanna and Bhanu Prasad, "Speaker recognition using artificial intelligence tools: Review and scope," *International Journal of Tomography and Statistics (IJTS)*, vol. 5(AI207), pp. 5-10, Apr. 2007.

Conference Proceedings

- J. G. M. Adnan, N. M, S. S. G and J. H S, "A Real-Time Network Intrusion Detection Based on Transformer-LSTM Model," *2024 Fourth International Conference on Multimedia Processing, Communication & Information Technology (MPCIT)*, Shivamogga, India, 2024, pp. 146-151, doi: 10.1109/MPCIT62449.2024.10892727.
- N. B. G, H. S. Jayanna and T. Yadava G, "Enhancing Person Recognition with Convolutional Neural Networks in Multimodal Biometrics," *2024 Asia Pacific Conference on Innovation in Technology (APCIT)*, MYSORE, India, 2024, pp. 1-5, doi: 10.1109/APCIT62007.2024.10673697.
- H. S. Jayanna, B. G. Nagaraja, G. Thimmaraja Yadava, J. Deekshith, M. J. Seelam and V. S. Jamkhandi, "Advancements in Handwriting Recognition: Deep Learning Techniques Applied to Kannada Language," *2024 International Conference on Smart Systems for applications in Electrical Sciences (ICSSSES)*, Tumakuru, India, 2024, pp. 1-5, doi: 10.1109/ICSSSES62373.2024.10561302.
- Thimmaraja Yadava G, Nagaraja B G and **H S Jayanna**, Performance Evaluation of spectral subtraction with VAD and time frequency filtering of speech enhancement, *Lecture Notes in Electrical Engineering, Volume 928, Year 2023, Pages 407-414* (conference paper)
- Janardhan C N and **H S Jayanna**, Deep Learning approaches to determine Gender based on Digital bones of skeleton: A Survey, in *2022 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics, DISCOVER 2022 - Proceedings, Year 2022, Pages 251-254*
- Laishram Rahul, Loitongbam Sanayai Meetei **H. S. Jayanna**, Statistical and Neural Machine Translation for Manipuri-English on Intelligence Domain, in *Fourth International Conference on Computing and Network Communications (CoCoNet'20) October 14-17, 2020, Chennai, India*
- Praveen Kumar P S and **H. S. Jayanna**, "Creation and Instigation of Triphone based Big-Lexicon Speaker-Independent Continuous Speech Recognition Framework For Kannada Language" in *3rd International Conference on Data Engineering and Communication Systems*, RNSIT, Bangalore Dec. 19-20, 2019.
- Thimmaraja Yadava G and **H. S. Jayanna**, "Automatic Isolated Kannada Speech Recognition System under Degraded Conditions" in *4th IEEE Int. Conf. on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques, GSSSIET, Mysore, Dec. 13-14, 2019.*
- Thimmaraja Yadava G and **H. S. Jayanna**, and *et. al*, "Speech enhancement and encoding using SS-VAD and LPC" in *4th IEEE Int. Conf. on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques, GSSSIET, Mysore, Dec. 13-14, 2019*
- Praveen Kumar P S, Jayanna H S, "Performance Analysis of Hybrid Automatic Continuous Speech Recognition Framework for Kannada Dialect", *10th IEEE*

International Conference on Computing, Communication and Networking Technologies (ICCCNT), July 6-8, 2019, IIT-Kanpur, India

- Thimmaraja Yadava G and **H. S. Jayanna**, “An End to End Spoken Dialogue System to Access the Agricultural Commodity Price Information in Kannada Language/Dialects”, Proc. IEEE Int. Conf. on Emerging Computation and Information Technologies (ICECIT-2017), Tumkur, Karnataka, Dec. 2017.
- Praveen Kumar P S, Thimmaraja Yadava G and **H. S. Jayanna**, “A Text Independent Speaker Identification-A Review”, Proc. IEEE Int. Conf. on Emerging Computation and Information Technologies (ICECIT-2017), Tumkur, Karnataka, Dec. 2017.
- Thimmaraja Yadava G and **H S Jayanna**, “Development and Comparison of ASR Models using Kaldi for Noisy and Enhanced Kannada Speech Data”, *IEEE Sixth Int. Conf. on Advances in Computing, Communications and Informatics (ICACCI-2017)*, Manipal Institute of Technology (MIT), Mangalore, 13-16th Sept. 2017.
- Thimmaraja Yadava G and **H. S. Jayanna**, “Creating language models and acoustic models using Kaldi to build an automatic speech recognition system for Kannada language”, in proceedings of *IEEE Int. Conf. on Recent Trends in Electronics Information Communication Technology (RTEICT)*, Bangalore, May 2017.
- Thimmaraja Yadava G and **H. S. Jayanna**, “Noise elimination in degraded Kannada speech signal for speech recognition”, in proceedings of *IEEE Int. Conf. on Trends in Automation and Communications and Computing Technologies (ITACT-2015)*, Bangalore, pp. 183-186, Dec. 2015.
- T R Arunkumar G and **H. S. Jayanna**, “A novel approach for Automatic Identification for Psoriasis Affected Skin Area”, Proc. IEEE Int. Conf. on Emerging Computation and Information Technologies (ICECIT-2017), Tumkur, Karnataka, Dec. 2017.
- Thimmaraja Yadava G and **H. S. Jayanna**, “Creating language models and acoustic models using Kaldi to build an automatic speech recognition system for Kannada language”, Proc. of IEEE Int. Conf. on Recent Trends in Electronics Information Communication Technology, Bangalore, May 2017.
- Jayanthi Kumari T. R and **H. S. Jayanna**, “Combination of System and Source Characteristics for Speaker verification under Limited Data condition,” Proc. IEEE CSPA2016, Melaka, Malaysia, March 2016.
- Jayanthi Kumari T. R and **H. S. Jayanna**, “System source and dynamic features for speaker verification for limited data condition” Proc. IEEE WiSPNET 2016, Chennai, Tamilnadu, India, March 2016
- Sunitha M R, **Jayanna H S**, Ramegowda, “ Multi Human Tracking using Graph based Segmentation and Daubechies Complex Wavelet Transform”, Proc. IEEE Int. Conf. on Wireless Communications, Signal Processing and Networking (WiSPNET) Chennai, Tamilnadu, India, March 2016.
- Rudresh M D, **Jayanna H S**, Anitha Sheela K, “ Person specific characteristic analysis time domain techniques for ECG signals” Proc. IEEE Int. Conf. on Research trends in Electronics and Information Technology, pp. 454-460, May 2016, Tamilnadu, India.
- Thimmaraja Yadava G and **H. S. Jayanna**, “Noise elimination in degraded Kannada speech signal for speech recognition”, Proc. IEEE Int. Conf. on Trends in Automation

and Communications and Computing Technologies (ITACT-2015), Bangalore, PP. 183-186, Dec. 2015.

- Sunitha M R, **Jayanna H S**, Ramegowda, “ Multiple human tracking based on Daubechies Complex Wavelet Transform combined with Histogram of Templates Features,” Proc. IEEE Int. Conf. on Trends in Automation, Communication and Computing Technologies (ITACT), pp. 171 - 176 , Bangalore, Karnataka, India, Dec. 2015.
- Jayanthi Kumari T. R and **H. S. Jayanna.**, “Limited Data Speaker Verification using MFSR Analysis Technique,” proc. IEEE ITACT 2015, pp. 177-182, Bangalore, Karnataka, India, Dec-2015.
- Jayanthi Kumari T.R and **H. S. Jayanna.**, “Comparison of LPCC and MFCC features and GMM and GMM-UBM modeling for Limited Data Speaker Verification,” Proc. IEEE Int. Conf. on Computational Intelligence and Computing Research (ICCIC),, pp. 818-823, Dec-2014, Coimbatore, Tamilnadu, India.
- Sunitha M R, **Jayanna H S**, Ramegowda , “Automatic Object Tracking using Background and Horizontal and Vertical Subtraction Scanning Technique” , Proc. Int. Conf. on “Emerging Research in Computing, Information, Communication and Applications (ERCICA 2013 (Elsevier)) , Bangalore, Karnataka, India, pp. 469-473.
- T. R. Jayanthi Kumari and **H. S. Jayanna.**, “Speaker verification Comparison between GMM and GMM-UBM under limited data condition ,” Proc. Int. Conf. on Emerging Computation and Information Technology (ICECIT) (Elsevier), pp. 43-50, Nov. 2013, Karnataka, India.
- Nagaraja B. G. and **H. S. Jayanna**, “Efficient window for monolingual and crosslingual speaker identification using MFCC,” Proc. IEEE, Int. Conf. on Advanced Computing and Communicating Systems, Coimbatore, Tamilnadu, India, Dec. 2013
- Nagaraja B. G. and **H. S. Jayanna**, “Mono and crosslingual speaker identification with the constraint of limited data,” Proc. IEEE, Int. Conf. on Pattern Recognition, Informatics and Medical Engineering, pp. 457-461, Salem, Tamilnadu, India, Mar. 2012.
- Nagaraja B. G. and **H. S. Jayanna**, “Multilingual speaker identification with the constraint of limited data,” Proc. Int. Conf. on Advances in Computing (Springer), pp. 893-898, Bengaluru, Karnataka, India, Jul. 2012.
- Nagaraja B. G. and **H. S. Jayanna**, “Multilingual speaker identification with the constraint of limited data using multitaper MFCC,” Proc. Int. Conf. on Recent Trends in Computer Networks and Distributed Systems Security (Springer), pp. 127-134, Trivandrum, Kerala, India, 2012.
- Nagaraja B. G. and **H. S. Jayanna**, “Combination of features for crosslingual speaker identification with the constraint of limited data,” Proc. Fourth Int. Conf. on Signal and Image Processing (Springer), pp. 143-148, Coimbatore, Tamilnadu, India, Dec. 2012.
- Nagaraja B. G. and **H. S. Jayanna**, “RLP-MFCC for speaker identification under noisy environments,” Proc. Int. Conf. on Emerging trends in Electrical, Communication and Information Technologies (Elsevier), pp. 164-168, Anantapur, Andhra Pradesh, India, Dec. 2012.

- **H. S. Jayanna** and S. R.M. Prasanna, ``Learning vector quantization for speaker recognition under limited data condition,`` in proc. Thirteenth Int. Conf. Cognitive Neural Systems, Boston University, (Boston, MA, USA), May 2009.
- **H. S. Jayanna** and S. R. M. Prasanna, "Speaker Recognition Under Limited Data Condition using LVQ and GMM-UBM", " Indian International Conference on Artificial Intelligence (IICAI-2009), Tumkur, Dec. 2009.
- C. Vijaya Kumar, **H. S. Jayanna** and S. R. M. Prasanna, " Variable Frame Size and Rate analysis for speaker recognition", International Symposium Frontiers of Research on Speech and Music (FRSM), Kolkata, Feb. 2008.
- **H. S. Jayanna** and S. R. M. Prasanna " Fuzzy vector quantization for speaker recognition under limited data conditions" IEEE-TENCON2008 , Hyderabad, Nov. 2008
- **H. S. Jayanna** and S. R. M. Prasanna, " Speaker recognition in limited data conditions", Workshop on Image and Signal processing (WISP-2007), IIT Guwahati, Dec. 2007.
- **H. S. Jayanna** and S. R. M. Prasanna, " Speaker recognition in limited data conditions for variable frame rate analysis", National conference on VLSI design, Signal processing and Communication (NC-VSCom), Tumkur, Karnataka, Feb. 2007.
- **H. S. Jayanna** and S. R. M. Prasanna, " Speaker recognition in limited data conditions using self- organizing map", Indian International Conference on Artificial Intelligence (IICAI-2007), Pune, Dec. 2007.
- **H. S. Jayanna**, Kali Charan Gujala and S. R. M. Prasanna, "Comparison of fuzzy and crisp vector quantization technique for speaker recognition", National Workshop on Artificial Intelligence (Nwai), NCST Mumbai, July 2006.
- **H. S. Jayanna** and S. R. M. Prasanna, "Variable segmental analysis based speaker recognition in limited data conditions", IEEE-Int. Conf. on Signal and Image processing (ICSIP), Hubblli, Karnataka, Dec. 2006.

Patents

- Gaze Controlled Electric Iron Box, The patent office journal No. 44/2020 Dated: 30/10/2020.

Invited Lectures, talks and workshops

- Delivered a talk on Speaker Recognition at Faculty Development Programme on Speaker recognition, organized by Dept. of E & C, SIT, Tumkur, 20 – 24th March 2010.
- Delivered a talk on Speech processing and speaker Recognition at Kalpatharu Institute of Technology, Tiptur on 29/10/2010
- Delivered a talk on Multimodal biometrics for person authentication at Sridevi Institute of Technology, Tumkur on 31/10/2010

- Delivered a lecture on Multimodal Biometrics at Chhatropati Shivaji Institute of Technology, Chhattisgarh on 19/01/2012
- Delivered a Keynote address at AICON (All India conference) on 20th Jan. 2012 at Chhatropati Shivaji Institute of Technology, Chhattisgarh
- Delivered lecture on Multimodal Biometrics at Chhattisgarh Engineering college, Chhattisgarh on 19/01/2012
- Delivered a talk on Mono and Multilingual Speaker recognition in a workshop on “Advances in signal processing and Pattern recognition” at MSRIT, Bangalore on 3rd August 2013
- Delivered a keynote address at National Seminar on “Speech Signal Processing & Its Applications” at Balasore College of Engineering & Technology on 20th and 21st Sept. 2013, Balasore, Odisha
- Delivered a technical talk in a three day workshop on “Mathematical Methods in Electrical Science Engineering” on Modelling Techniques for Speaker Recognition at SSIT, Tumkur on 5th March 2014.
- Delivered a talk on Developments in Information Technology at SSIT, Tumkur, on 11th Nov. 2014 in a Two day workshop on Recent Trends in Electrical Science Engineering.
- Delivered a talk on “Digital India” on 2nd July 2015 at Aryabharati Polytechnic, Tumkur
- Delivered a talk on Trends in Information Technology and Communication, at Shridevi Institute of technology, Tumkur on 23rd July 2015 in a short term training programme on "NBA and Faculty development Programme".
- Delivered a talk on “ Computer and its applications” on 5th July 2016 at Siddaganga Polytechnic, Tumkur
- Delivered a talk on “ Applications of speech in real-time system development” on 7th April 2017 at National conference on “Emerging Trends and Advantages in Information Technology” Adhichunchanagiri Institute of Technology, Chikkamagalore.
- Delivered a talk on “ Multimodal Biometrics for Person Authentication and security” at Alvas’s Institute of Engineering and Technology, Moodabidri on 16th Sept. 2017.
- Resource person at “ Three day National Workshop on Outcome based Education : A Transformational approach for quality education” Organized by the Dept. of ISE, PDA college of Engineering, Kalaburgi from 21-22 June 2018.
- Resource person in the STTP on “Recent Advancement in Signal Processing” organized by the Department of Electronics and Communication, NIT, Nagaland from 15-09-2018-19-08-2018.
- Resource person in ACITE – ATAL FDP on “ Deep learning for Audio and Speech Processing” held at KLE Technological University, Hubballi, from 26/7/2021-30/7/2021.