

# KALLURI SHAREEF BABU

Assistant Professor Sr. Scale, School of Computer Science, || UPES, Dehradun, India

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Web links : [Linkedin](#) || [GoogleScholar](#)

## EDUCATION

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- **Ph.D.** || National Institute of Technology Karnataka (NITK) Surathkal, KAR, India  
Thesis: [Automatic Estimation of Personal Characteristics using Speech Data](#)  
Department of Electronics and Communication Engineering July 2021  
Specialization in Machine Learning and Speech Signal Processing  
Cumulative GPA: 7.68/10.0
- **M.Tech.** || Jawaharlal Nehru Technological University, Anantapur Anantapur , AP, India  
Department of Electronics and Communication Engineering Jun 2013  
Specialization in Digital Electronics and Communication Systems  
Percentage: 82.44%
- **B.Tech.** || Jawaharlal Nehru Technological University, Anantapur Anantapur , AP, India  
Department of Electronics and Communication Engineering Jun 2011  
Percentage: 67.76%.

## RESEARCH EXPERIENCE

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- **Post-Doc Researcher** November 2023 - Nov 2024  
[Learning and Extraction of Acoustic Patterns \(LEAP\) Lab](#),  
Dept. of Electrical Engineering, Indian Institute of Science(IISc), Bangalore, India.  
Projects Involved:
  - \* Diarization of Speaker and Language in Conversational Environments ([DISPLACE](#))  
[Lead organiser of DISPLACE challenge at Interspeech 2024](#)
  - \* Speech Analytics and Conversational AI, funded by British TelecomSupervisor: [Prof. Sriram Ganapathy](#)
- **Post-Doc Researcher** May 2021 - March 2023  
[Intelligent User Interface Lab](#),  
Dept. of Computer and Information Science, Seikei University, Tokyo, Japan.  
Projects Involved:
  - \* User-adaptive artificial intelligence for human-computer interaction (PANORAMA)  
project funded by JST, AIP Japanese-German-French AI Research program
  - \* The Realization of an Avatar-Symbiotic Society where Everyone can Perform Active Roles without Constraint (Project manager is Professor Hiroshi Ishiguro at Osaka University) funded by JST Moonshot R&D goal 1: Realization of a society in which human beings can be free from limitations of body, brain, space, and time by 2050Supervisor: [Prof. Yukiko I Nakano](#)

- **Research Scholar** December 2013 to 2020  
 Department of Electronics and Communication Engineering,  
 National Institute of Technology Karnataka Surathkal.  
 Supervisor: [Dr. Deepu Vijayasenan](#)
- **Project Research Assistant (SERB Funded)** January 2019 to October 2020  
 Department of Electronics and Communication Engineering,  
 National Institute of Technology Karnataka Surathkal.  
*Title: Automatic Multilingual Speaker Profiling and Forensics.*  
 Supervisor: [Dr. Deepu Vijayasenan](#)  
  
*Visiting Research Scholar: Learning and Extraction of Acoustic Patterns ([Leap Lab](#)),*  
 Department of Electrical Engineering, Indian Institute of Sciences (IISc) Bangalore.
- **Research Intern** October 2012 to May 2013  
 National Atmospheric Research Laboratory ([NARL](#)), Gadanki, Tirupati, AP, India.  
 Topic: Implementation of Reed-Solomon Decoder Using Microblaze for Radiosonde Telemetry system..  
 Mentor: Dr. T.V.C. Sarma, Scientist/Engineer - SG

## TEACHING EXPERIENCE & CURRENT PROJECTS

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- **Assistant Professor** at UPES, Dehradun Dec 2024 - Till date  
 Subjects Taught  
 \* Digital Electronics  
 \* Database Engineering, DBMS, Java
- **Current Projects**  
 – Organising for [DISPLACE-M](#), in collaboration with IISc, NITK and IIT Bombay.

## PUBLICATIONS

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- **Journal:**
  1. [Kalluri, Shareef Babu, Deepu Vijayasenan, and Sriram Ganapathy](#), “Automatic speaker profiling from short duration speech data”, [Speech Communication](#) (2020). (SCIE Indexed, Impact factor: 3.2)
  2. Sugandha Sharma, Virender kadyan, Kalluri, Shareef Babu, “Sensor-Enabled Automated Bioacoustic Systems for Precision Livestock Management and Wildlife Welfare Monitoring: A Comprehensive Review.” *International Journal on Smart Sensing and Intelligent Systems.* ” (Under review)
  3. Sugandha Sharma, Virender kadyan, Kalluri, Shareef Babu, “ Deep Learning Based Acoustic Decision Support System for Automated Estrus Detection in Water Buffaloes”, Submitted to journal of Springer Nature Computer Science.

- **Conferences:**

1. Dhanya E, Ankita Meena, Manas Nanivadekar, Noumida A, Victor Azad, Ashwini Nagaraj Shenoy, Pratik Roy Chowdhuri, Shobhit Banga, Vanshika Chhabra, Chitralkha Bhat, Kalluri, Shareef Babu, Srikanth Raj Chetupalli, Deepu Vijayasenan, Sriram Ganapathy, “Benchmarking Speech Systems for Frontline Health Conversations: The DISPLACE-M Challenge”, [arXiv preprint arXiv:2603.02813 \(2026\)](#). (Interspeech 2026 - Under Review)
2. Shareef Babu Kalluri and P Ravi Teja, “Healthcare AI with XAI: A Transparency Initiative,” International Conference on Data-Driven Insights for National Security (under review)
3. Kalluri, Shareef Babu , Deepu Vijayasenan, “Analysis of Speech Features in Identifying Client’s Change Talk in Motivational Interviewing,” in *38<sup>th</sup> IEEE Region 10 Conference 2025 TENCN 2025*, Kota Kinabalu, Malaysia.
4. Puneet Bawa, Virender Kadyan, Kalluri, Shareef Babu , “Autoencoder-Driven Latent Representation Learning for Language-Agnostic Disordered Speech Classification using a Universal Feature set”, *17<sup>th</sup> Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC)*, IEEE, 2025, Singapore.
5. Kalluri, Shareef Babu , Prachi Singh, Pratik Roy Chowdhuri, Apoorva Kulkarni, Shikha Baghel, Pradyoth Hegde, Swapnil sontakke, Deepak K T, Mahadeva Prasanna S R, Deepu Vijayasenan, Sriram Ganapathy, “The Second DISPLACE Challenge : DIarization of SPEaker and LAnguage in Conversational Environments,” in the proceedings of [Interspeech 2024](#), Kos, Greece 2024.
6. Kalluri, Shareef Babu , Deepu Vijayasenan, Sriram Ganapathy, Ragesh Rajan M, Prashant Krishnan, “NISP: A Multi-lingual Multi-accent Dataset for Speaker Profiling”,in the proceedings of the *46<sup>th</sup> IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. Toronto, Ontario, Canada, IEEE, 2021.
7. Kalluri, Shareef Babu , Deepu Vijayasenan, and Sriram Ganapathy, “ A Deep Neural Network Based End to End Model for Joint Height and Age Estimation from Short Duration Speech”, *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, IEEE, 2019, Brighton, UK.
8. Kalluri, Shareef Babu, Ashwin Vijayakumar, Deepu Vijayasenan, and Rita Singh, “ Estimating Multiple Physical Parameters from Speech data”, in *IEEE 26<sup>th</sup> International Workshop on Machine Learning for Signal Processing (MLSP)*, 2016, Salerno, Italy.
9. Kalluri, Shareef Babu and Deepu Vijayasenan, “ Robust features for automatic estimation of physical parameters from speech”, in *IEEE Region 10 Conference, TENCN 2017*, Penang, Malaysia.
10. Kotra Venkata Sai Ritwik, Kalluri, Shareef Babu, Deepu Vijayasenan, “ COVID-19 Detection from Spectral features on the DiCOVA Dataset”, in the proceedings of [Interspeech 2021](#), Brno, Czech Republic.
11. Deepu Vijayasenan, Kalluri, Shareef Babu, K Sreekanth, and Ansal Issac, “ Study of Wireless Channel Effects on Audio Forensics”, in *IEEE 22<sup>nd</sup> Annual International Conference on Advanced Computing and Communication (ADCOM)*, 2016, Bangalore, India.

- **Other Publications**

1. Kotra Venkata Sai Ritwik, Kalluri, Shareef Babu, Deepu Vijayasenan, “ COVID -19 Patient Detection from Telephone Quality Speech Data”, [arXiv preprint arXiv:2011.04299](https://arxiv.org/abs/2011.04299) (2020).

#### TEACHING ASSISTANTSHIP & MENTORING

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- Digital Signal Processing, Digital Electronics, Micro processors and Embedded Systems (Lab)
- Pattern Recognition and Machine Learning (Theory)
- Mentored Interns during PhD and Post-Doc tenure

#### ASSISTED FOR PROJECT FUNDING

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- Automatic Multilingual Speaker Profiling and Forensics (co-ordinating in grant fund release and technical report writing ), funded by SERB, Govt of India.
- Speech Analytics and Conversational AI (Proposal, Technical report writing, Action plan for 2024-2025 year ), funded by British Telecom
- National Language Translation Mission (NLTM) BHASHINI : IISc - NITK consortium (Technical report writing, and co-ordinating in grant fund release ) funded by MEiTY, Govt of India.

#### FACULTY DEVELOPMENT PROGRAMMES (FDPS) ORGANISED & SESSION CHAIR

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- Organizer, FDP on “Emerging Frontiers in Speech and Language Technologies”, UPES Dehradun & EICT Academy, IIITDM Jabalpur (MeitY, Govt. of India), Online, Jan 6–13, 2026.
- Session Chair, 17<sup>th</sup> IEEE International Conference on Computational Intelligence and Communication Networks (CICN 2025), NIT Goa, India, Dec 20–21, 2025.

#### FACULTY DEVELOPMENT PROGRAMMES (FDPS) ATTENDED

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- Advances in Artificial Intelligence for Image Processing and Medical Applications, organised by UPES from March 3–7, 2025.
- Intelligent Systems and Emerging Technologies in Computing and Electronics, organised by UPES from July 21–25, 2025.
- Effective Pedagogy (Practice and Policy Alignment), organised by UPES from July 28–August 1, 2025.

#### INVITED TALKS AND ORAL PRESENTATIONS

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- Oral presentation at the 38<sup>th</sup> IEEE Region 10 Conference (TENCON 2025), Kota Kinabalu, Sabah, Malaysia.
- Invited talk on “Diarization of Speaker and Language in Conversational Environments (DISPLACE)” at the EECS Symposium, Indian Institute of Science (IISc), Bangalore, April 2024.

#### POSTER AND PAPER PRESENTATIONS

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- Poster presentation at Interspeech 2024, Kos Islands, Greece, September 2024.

- Poster presentation at ICASSP 2019, Brighton, United Kingdom, May 2019.
- Poster presentation at IEEE Region 10 TENCON 2017, Penang, Malaysia, November 5–8, 2017.
- Poster presentation at MLSP 2016, Salerno, Italy, September 2016.
- Paper presentation at ADCOM 2016, Bangalore, India, September 2016.

## CONFERENCES, WINTER SCHOOLS, AND WORKSHOPS ATTENDED

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- INTERSPEECH 2018, Hyderabad, India, September 2018.
- Winter School on Speech and Audio Processing (WiSSAP 2020), Indian Institute of Technology Mandi, Himachal Pradesh, January 2020.
- Winter School on Speech and Audio Processing (WiSSAP 2019), College of Engineering, Trivandrum, Kerala, January 2019.
- Winter School on Speech and Audio Processing (WiSSAP 2015), Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, Gujarat, January 2015.
- Seminar on “Fundamentals of Speech Analysis and Synthesis”, Department of Speech and Hearing, School of Allied Health Sciences, Manipal University, Manipal, India, October 2015.
- Workshop on “Fundamentals of Speech Processing”, Department of Computer Science and Engineering, NITK Surathkal, March 2014.
- National seminar on “Frontiers in Machine Learning and Speech Processing”, Department of Computer Science, Central University of Kerala, February 2015.

## AWARDS & FELLOWSHIPS

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- MHRD Fellowship for Ph.D., Government of India (December 2013 – December 2018).
- Awarded a grant of USD 280 for student volunteer coordination at ICASSP 2019, Brighton, United Kingdom, May 2019.
- IEEE Signal Processing Society Student Travel Grant (2016) for attending the 26<sup>th</sup> International Workshop on Machine Learning for Signal Processing (MLSP 2016), Salerno, Italy.
- TEQIP-II International Student Travel Grant (2016) for attending the 26<sup>th</sup> International Workshop on Machine Learning for Signal Processing (MLSP 2016), Salerno, Italy.
- First Prize, National Level Student Technical Symposium (INTERACT2K10), Anil Neerukonda Institute of Technology, Visakhapatnam, Andhra Pradesh, India (2010).

## TOP SKILLS

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- Programming Language: **Python, Java, SQL**
- Programming Tools (IDE): **Matlab**
- Python Libraries: **Numpy, Scipy, Matplotlib, Pandas**
- Research Interest: **Speech Processing, Speaker diarization, Speech Pathology, Human Computer Interaction, Machine Learning, Deep Learning**

## PROFESSIONAL SERVICE & MEMBERSHIPS

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- Reviewer, Journal of Speech Communication, Interspeech 2021 - 2026, IEEE INDICON 2025, ICASSP 2026.
- Reviewer, IEEE CONECCT 2020, SPCOM 2024, 2026, SPECOM 2023, Annual Conference on Intelligent User Interfaces (IUI) 2022 - 2024
- Member, ACM, ISCA, IEEE-SPS

[All the information written here is true to the best of my knowledge]

*Kalluri Shareef Babu*