

KALLURI SHAREEF BABU

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

- 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

- 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

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

PUBLICATIONS

- **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, “Animal Welfare Monitoring through automated analysis of bioacoustics: A review”, (Under Preparation)
 3. Sugandha Sharma, Virender kadyan, Kalluri, Shareef Babu, “ Deep learning Techniques for Estrus Classification using Vocalization Patterns in Murrah Buffaloes”, (Under Preparation)
 - **Conferences:**
 1. Kalluri, Shareef Babu , Deepu Vijayasenan, “Analysis of Speech Features in Identifying Client’s Change Talk in Motivational Interviewing,” in **IEEE Region 10 Conference 2025 TENCON 2025**, Kota Kinabalu, Malaysia.
 2. Puneet Bawa, Virender Kadyan, Kalluri, Shareef Babu ,“Autoencoder-Driven Latent Representation Learning for Language-Agnostic Disordered Speech Classification using a

Universal Feature set”, 2025 Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC), IEEE, 2025, Singapore.

3. Kalluri, Shareef Babu , Prachi Singh, Pratik Roy Chowdhuri, Apoorva Kulkarni, Shikha Baghel, Pradyoth Hegde, Swapnil Sontakke, Deepak K T, Mahadeva Prasanna S R, Deepu Vijayasanan, Sriram Ganapathy, “The Second DISPLACE Challenge : Diarization of Speaker and Language in Conversational Environments,” in the proceedings of [Interspeech 2024](#), Kos, Greece 2024.
4. Kalluri, Shareef Babu , Deepu Vijayasanan, Sriram Ganapathy, Ragesh Rajan M, Prashant Krishnan, “NISP: A Multi-lingual Multi-accent Dataset for Speaker Profiling”, in the proceedings of the *46th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*. Toronto, Ontario, Canada, IEEE, 2021.
5. Kalluri, Shareef Babu , Deepu Vijayasanan, 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.
6. Kalluri, Shareef Babu, Ashwin Vijayakumar, Deepu Vijayasanan, and Rita Singh, “Estimating Multiple Physical Parameters from Speech data”, in *IEEE 26th International Workshop on Machine Learning for Signal Processing (MLSP)*, 2016, Salerno, Italy.
7. Kalluri, Shareef Babu and Deepu Vijayasanan, “Robust features for automatic estimation of physical parameters from speech”, in *IEEE Region 10 Conference, TENCON 2017*, Penang, Malaysia.
8. Kotra Venkata Sai Ritwik, Kalluri, Shareef Babu, Deepu Vijayasanan, “COVID-19 Detection from Spectral features on the DiCOVA Dataset”, in the proceedings of [Interspeech 2021](#), Brno, Czech Republic.
9. Deepu Vijayasanan, Kalluri, Shareef Babu, K Sreekanth, and Ansal Issac, “Study of Wireless Channel Effects on Audio Forensics”, in *IEEE 22nd Annual International Conference on Advanced Computing and Communication (ADCOM)*, 2016, Bangalore, India.

- **Other Publications**

1. Kotra Venkata Sai Ritwik, Kalluri, Shareef Babu, Deepu Vijayasanan, “COVID -19 Patient Detection from Telephone Quality Speech Data”, [arXiv preprint arXiv:2011.04299 \(2020\)](#).

TALKS, TEACHING ASSISTANTSHIP & MENTORING

- Gave a talk on Diarization of Speaker and Language in Conversational Environments, at EECS symposium IISc, Bangalore.
- 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

- 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.

TOP SKILLS

- Programming Language: **Python**
- 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

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

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

Kalluri Shareef Babu