

# KALLURI SHAREEF BABU

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

+91-9620789927 || E-mail: shareef.iisc@gmail.com

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

## PUBLICATIONS

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- Journal:**
  - 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)
  - Sugandha Sharma, Virender kadyan, Kalluri, Shareef Babu, “Animal Welfare Monitoring through automated analysis of bioacoustics: A review”, (Under Preparation)
  - Sugandha Sharma, Virender kadyan, Kalluri, Shareef Babu, “Deep learning Techniques for Estrus Classification using Vocalization Patterns in Murrah Buffaloes”, (Under Preparation)
- Conferences:**
  - Kalluri, Shareef Babu , Deepu Vijayasenan, “Analysis of Speech Features in Identifying Client’s Change Talk in Motivational Interviewing,” in *IEEE Region 10 Conference 2025 TENCN 2025*, Kota Kinabalu, Malaysia.
  - 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 Vijayasenan, 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 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.
5. 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.
6. 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.
7. Kalluri, Shareef Babu and Deepu Vijayasenan, “ 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 Vijayasenan, “ COVID-19 Detection from Spectral features on the DiCOVA Dataset”, in the proceedings of [Interspeech 2021](#), Brno, Czech Republic.
9. 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 \(2020\)](#).

#### TALKS, TEACHING ASSISTANTSHIP & MENTORING

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- 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

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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.

## TOP SKILLS

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- 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

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- 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*