



# WINTER SCHOOL ON SPEECH AND AUDIO PROCESSING (WiSSAP-2024)

## MULTILINGUAL SPEECH PROCESSING OF INDIC LANGUAGES

Koneru Lakshmaiah Education Foundation, Vaddeswaram - 522302, Andhra Pradesh, India



### EVENT SUMMARY

Koneru Lakshmaiah Education Foundation is hosting WiSSAP-2024 from December 09-12, 2024, focusing on "Multilingual Speech Processing of Indic Languages". The event addresses India's linguistic complexity, spanning 11 classical, 22 official, and thousands of other languages spoken by 145 crore people. WiSSAP aims to bring together experts, researchers, and students to discuss fundamental and practical aspects of multilingual speech processing systems. Targeted at academic and research professionals, the winter school will feature invited talks, research presentations, and discussions on speech and audio processing challenges. This 17th edition of the annual event provides a platform for exploring cutting-edge developments in the field

### ESTEEMED GUESTS



**Dr. Bayya Yegnanarayana**  
(IIIT) Hyderabad



**Dr. Shyam S Agrawal**  
KIIT Gurgaon



**Dr. Swaran Lata**  
MeitY New Delhi

### INVITED SPEAKERS



**Dr. Hema A Murthy**  
IIT Madras



**Dr. Anusha Prakash**  
Independent Researcher



**Dr. C. Chandra Sekhar**  
IIT Madras



**Dr. Sriram Ganapathy**  
IISc Bengaluru



**Dr. P Vijayalakshmi**  
SSNCE Chennai



**Prof. Nixon Patel**  
IIT Hyderabad



**Dr. Hemant A. Patil**  
DA-IICT Gandhinagar



**Pranaw Kumar**  
CDAC Mumbai



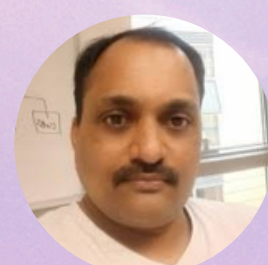
**Dr. S Umesh**  
IIT Madras



**Dr. K Sri Rama Murthy**  
IIT Hyderabad



**Dileep A D**  
IIT Dharwad



**Dr. Arun Sankar M S**  
SETU, Ireland



**Dr. Debamalya Chakraborty**  
Amazon Alexa, Bengaluru



**Dr. Sreeram Ganji**  
Reliance Jio AICoE



**Dr. Jagabandhu Mishra**  
UEF Finland



**Dr. Govind D**  
KLEF Vaddeswaram



**Dr. Rajeev Aravindakshan**  
AIIMS Mangalagiri



**Dr. Rakesh U K**  
AIIMS Mangalagiri

**For Registration Please Visit:**  
<https://wissap24.kluniversity.in/>

**Contact:**  
[wissap24@kluniversity.in](mailto:wissap24@kluniversity.in)

Time	December 9 (Day 1)	December 10 (Day 2)	December 11 (Day 3)	December 12 (Day 4)
08:00 a.m - 09:00 a.m	Registration	-	-	-
09:00 a.m - 10:30 a.m	Inaugural Function	Quantum Leap in Speech Recognition - Beyond Gen-AI and LLMs • Prof. Nixon Patel ( 9:00 a.m - 9:30 a.m )	Speech recognition in noisy environments: Focus on far field and call communications • Vikram C M	Implicit Processing of Speech for Spoken Language Diarization • Dr. Jagabandhu Mishra
		Multi-Lingual Audio Deepfake Detection Corpus • Dr. Hemant A. Patil ( 09:30 a.m - 10:30 a.m )		Processing of speech recorded from stroke patients • Dr. Govind D
10:30 a.m - 11:00 a.m	Hi Tea	Meet & Greet	Mingling Moment	
11:00 a.m - 12:00 a.m	Importance of phase in speech signal processing. • Dr. Bayya Yegnanarayana	Development of Text to Speech Synthesis System for Santhali - A Low Resource Language • Pranaw Kumar	Attentive Multilingual Speech Encoder for Zero-Prior ASR • Dr. Debamalya Chakraborty ( 11:00 a.m - 12:30 p.m )	Mingling Moment
				Approaches to recording and processing of voice samples of neurological patients • Dr. Rajeev Aravindakshan
12:00 a.m - 1:00 p.m	A multilingual perspective to TTS systems for Indian languages. • Dr. Hema A Murthy & • Dr. Anusha Prakash	Recent Efforts for Automatic Speech Recognition (ASR) in Indian Languages • Dr. S Umesh	Lunch Break ( 12:30 p.m - 02:00 p.m )	Lunch Break (12:30 p.m - 2:00 p.m)
1:00 p.m - 02:30 p.m	Lunch Break	Lunch Break	Learning for machines: Insights from acoustic analyses • Priyankoo Sarmah	Insights into Speech Disorders: Bridging Research and Practice • Dr. Rakesh U K
02:30 p.m -03:30 p.m	Advances in Deep Learning Models • Dr. C. Chandra Sekhar	Speech Processing using Deep Neural Networks (DNN) • Dr. K Sri Rama Murthy	Advancing Text-to-Speech Technology for Indic Languages: Motivation, Architectural Frameworks, and Performance Evaluation • Dr. Sreeram Ganji ( 03:00 p.m - 04:30 p.m )	Round Table Discussion
03:30p.m -04:30 p.m	Representation Learning For Emotional Artificial Intelligence • Dr. Sriram Ganapathy	Spoken Language Identification Techniques for Indian Languages • Dileep A D		
04:30 p.m -05:00 p.m	Refreshment Break	snack interval	Snack Interval	Valedictory Function
05:00 p.m -06:00 p.m	Assistive speech technologies • Dr. P Vijayalaxmi	Securing the Audio Domain: Cyber Threats and Effective Mitigation Strategies • Dr. Arun Sankar M S	Poster Presentation by Research Scholars ( 05:00 p.m - 06:30 p.m )	
06:00 p.m onwards	-	Ideas & Appetites	Cultural Night	Hi Tea

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Principal, CoE

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- Dr. T. Pavan Kumar, HoD, CSE (Honours-2)
- Dr. V. S. V. Prabhakar, HoD, CSE (Regular)
- Dr. Tirapathi Reddy B, HoD, AI&DS
- Dr. Amarendra K, HoD, CS&IT

**CONVENORS**

- Dr. Suryakanth V Gangashetty CSE
- Dr. Samudravijaya K CSE
- Dr. Govind D CSE
- Dr. Akhilesh Kumar Dubey CSE

**FOR REGISTRATION**

