# Winter School on Speech and Audio Processing (WiSSAP) 2019

Venue

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27th-29th January, 2019 College of Engineering Trivandrum (CET) Kerala, India

### Theme

## Deep dive into brain and machine perception: Bridging the gap in speech processing

With the advent of techniques to capture sensory signals associated with speech cognition and computational approaches to analyze these signals, curiosity to strengthen our understanding of human speech processing has increased. In this WiSSAP, we will meet to dive deeper into these and related topics, and identify how the insights can aid in design of machine systems for robust speech processing.

### Focus

- speech perception and learning
- role of attention in listening

Dr. lithendra Vepa Observe Al Bangalore| ASR system design

- deep learning and state-of-the-art in machine speech perception
- drawing connections between human and machine perception

Dr. Deepu Vijayasenan

NIT Surathkal, Karnataka Speaker diarization and speech recognition system design

#### Programme

Three day school will see participation from researchers working in academia and industry, analyzing speech cognition via experimentation on the human brain and building state-of-the-art speech recognition systems.

Dr. V. Ramasubramar

IIIT Bangalore Deep Learning: The biology and mathematics

 Invited talks • Tutorials

- Research Scholars' Symposium
- Panel Discussions

**Invited Speakers** 



Dr. Lori L. Holt, Carnegie Mellon University, Pittsburgh Understanding how humans interpret the complexity of spoken language

Dr. Ratnavalli Ellajosyula, Manipal Hospita & Annasawmy Mudaliar General Hospital| Bilingualism and dementia: The vulnerable second language

> Rajakrishnan Rajkumar, |ISER Bhopal| Eve movements in the

perception of Indian

languages

Dr. Barbara Shinn-Cunningham

Role of attention mechanisms in

Carnegie Mellon University Pittsburgh

listening

minds.ai Getting creative with autoencoder



Dr. Chandra S Seelamantula IISc Bangalore

Learning to do sparse coding



Suresh Kumaraswamy | CET, Kerala Sriram Ganapathy | IISc, Bangalore Neeraj Sharma | CMU, Pittsburgh Prasanta Kumar Ghosh | IISc, Bangalore

Online Registration Open. Limited Seats.

https://wissap.github.io/2019/

T. V. Sreenivas | IISc, Bangalore Chandra Sekhar Seelamantula | IISc, Bangalore Padmanabhan Rajan | IIT Mandi