Workshop on Fundamentals of Automatic Speech Recognition (7-8 March, 2011), CDAC, Noida

Course Overview

Voice-driven computing and word-processing systems in English and European Languages have seen light of the day because of being backed by continuous research work in Automatic Speech Recognition (ASR). Though, some research work has happened in Indian languages too, like in Hindi, Tamil, Bengali and Telugu. Practical ASR systems are yet to be produced. Need for the research and development of ASR based applications for Indian languages is being felt in various sectors including e-Governance. The main objective of the workshop is to train and motivate the participants to learn the basics of Automatic Speech Recognition and expedite research in ASR for Indian Languages. The workshop covered - Speech Technology: Impact & Application, Speech production, perception, Analysis, Fundamentals of ASR, Feature Extraction, Dynamic Time Warping, HMM, Acoustic Modeling and Language Modeling, Gaussian Mixture Models, ASR Tools and ASR Evaluation Techniques.

Contents and Coverage

- Speech Technology: History, Impact and Applications
- Speech Analysis, Feature Extraction, Vector Quantization Dynamic Time Warping
- Acoustic Modeling Techniques for ASR, HMM
- Gaussian Mixture Models
- Speech production & perception
- Language Modeling
- ASR Tools and ASR Evaluation Techniques

Key Speakers

Dr. Samudravijaya K	TIFR, Mumbai
Prof Arun Kumar	CARE, IIT Delhi
Prof RMK Sinha	IIT Kanpur
Dr.P.Laxminarayana	NERTU, Osmania University
Dr. S S agarwal	KIIT College, Gurgaon
Dr. Anu Khosla	SAG, DRDO
Dr George Varkey	CDAC, Noida