UTD *Joint Computer Science and Electrical Engineering Seminar & Dallas Chapter of IEEE Signal Processing Society*

Automatic Speech Recognition: Challenges Ahead

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In this talk, I will start with a brief description of the current state-of-the-art on the automatic speech recognition (ASR) research. I will show that although significant progress has been made in the past several decades, some fundamental problems are yet to be resolved. I will then discuss several key challenges in my own view and some of the related works. The challenges I will discuss include robust issues, large dataset exploitation problem, lightly supervised and unsupervised training, discriminative training, and deep learning. I will conclude the talk with a potential new paradigm to the ASR.

Dong Yu joined Microsoft Corporation in 1998 and Microsoft Speech Research Group in 2002, where he is a researcher. He holds a Ph.D. degree in computer science from University of Idaho, an MS degree in computer science from Indiana University at Bloomington, an MS degree in electrical engineering from Chinese Academy of Sciences, and a BS degree (with honor) in electrical engineering from Zhejiang University (China). His current research interests include speech processing, robust speech recognition, discriminative training, spoken dialog system, voice search technology, machine learning, and pattern recognition. He has published more than 60 papers in these areas and is the inventor/coinventor of more than 30 granted/pending patents. Dr. Dong Yu is a senior member of IEEE, a member of ACM, and a member of ISCA. He is currently serving as an associate editor of IEEE Signal Processing Magazine.

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