18.0 Conclusion

Reference: 1. "Special Section on Fundamental Technologies in Modern Speech Recognition", IEEE Signal Processing Magazine, Nov 2012

2. "Special Issue on Spoken Language Technology", IEEE Signal Processing Magazine, May 2008

3. "Special Issue on Speech Technology in Human-Machine Communication", IEEE Signal Processing Magazine, Sept 2005

Concluding Remarks

- **Speech Technologies: Interdisciplinary Nature**
  - Digital Signal Processing, Perception Analysis, Phonetics, Linguistics, Natural Language Processing, Artificial Intelligence, Pattern Recognition, Machine Learning, Statistics, Information Theory, Detection/Estimation Theory, Information Retrieval, Wireless Communications, Multimedia, Networks...
  - higher entry barrier with plenty of open space
  - integrating mathematical models with programming
- **Speech is the Most Natural Communication Media for Human Beings with Unlimited Variety**
  - everyone speaks everyday
  - all sentences/utterances are different acoustically/linguistically
  - at least 4,000 different languages all over the world, at least 100 extensively used
- **The Time of Speech is Coming**
  - the post-PC era specially with wearable user terminals, wireless communications and multimedia network content have created a perfect space for speech technologies
  - the improved technologies and successful products indicate that more attractive applications are yet to appear
  - the opportunities and challenges are simply limited by your imagination