Call for Papers
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Spoofing and Countermeasures for Automatic Speaker Verification

Automatic speaker verification (ASV) offers a low-cost and flexible biometric solution to person authentication. While the reliability of ASV systems is now considered sufficient to support mass-market adoption, there are concerns that the technology is vulnerable to spoofing, also referred to as presentation attacks. Replayed, synthesized and converted speech spoofing attacks can all project convincing, high-quality speech signals that are representative of other, specific speakers and thus present a genuine threat to the reliability of ASV systems.

Recent years have witnessed a movement in the community to develop spoofing countermeasures, or presentation attack detection (PAD) technology to help protect ASV systems from fraud. These efforts culminated in the first standard evaluation platform for the assessment of spoofing and countermeasures of automatic speaker verification – the Automatic Speaker Verification Spoofing and Countermeasures Challenge (ASVspoof) – which was held as a special session at Interspeech 2015.

This special issue is expected to present original papers describing the very latest developments in spoofing and countermeasures for ASV. The focus of the special issue includes, but is not limited to the following topics related to spoofing and countermeasures for ASV:

- vulnerability analysis of previously unconsidered spoofing methods;
- advanced methods for standalone countermeasures;
- advanced methods for joint ASV and countermeasure modelling;
- information theoretic approaches for the assessment of spoofing and countermeasures;
- spoofing and countermeasures in adverse acoustic and channel conditions;
- generalized and speaker-dependent countermeasures;
- speaker obfuscation, impersonation, de-identification, disguise, evasion and adapted countermeasures;
- analysis and comparison of human performance in the face of spoofing;
- new evaluation protocols, datasets, and performance metrics for the assessment of spoofing and countermeasures for ASV;
- countermeasure methods using other modality or multimodality that are applicable to speaker verification

Also invited are submissions of exceptional quality with a tutorial or overview nature. Creative papers outside the areas listed above but related to the overall scope of the special issue are also welcome. Prospective authors can contact the Guest Editors to ascertain interest on such topics.

Prospective authors should visit http://www.signalprocessingsociety.org/publications/periodicals/jstsp/ for submission information. Manuscripts should be submitted at http://mc.manuscriptcentral.com/jstsp-ieee and will be peer reviewed according to standard IEEE processes.

Important Dates:
- Manuscript submission due: ~~August 1, 2016~~ August 15, 2016
- First review completed: October 15, 2016
- Revised manuscript due: December 1, 2016
- Second review completed: February 1, 2017
- Final manuscript due: March 1, 2017
- Publication date: June, 2017

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