Abstract

This paper introduces a new technique for Speech compression and encryption in one-step. Speech compression is the process of converting human speech signals into a form that is compact and is reliable for communication and storage by reducing the size of data without losing quality of the original speech. Speech encryption is the process of converting the normal form of speech into an unrecognized form to increase the security of communication through an insecure channel. Compressive sensing theory is used to apply the compression and encryption in one-step; in addition, the contourlet transform is used to prove the principle of Compressive Sensing (CS) (i.e. Spars structure) that is one of the most important aspects of the compressive sensing theory.

References


Index Terms

Computer Science  
Signal Processing

Keywords

Compressive sensing, Contourlet Transform.