Abstract

The theory of Compressive Sensing (CS) enables the reconstruction of sparse signals as well as image from small set of random measurements by solving primal dual interior point method for l1 minimization problem. This paper presents reconstruction of signal based on CS theory applied on experimental data. Reconstruction of A-scan and B-scan image with fewer samples is obtained without affecting quality. Reconstruction of range profile with A-scan data with random samples by inverse discrete frequency transform (IDFT) is achieved and then compares it with CS reconstructed range profile by computing peak signal to noise ratio (PSNR). It is observed that PSNR obtained with CS has good quality while using IDFT, it is degraded. Similar results are obtained for B-scan image.

References

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Index Terms

Computer Science  Image Processing
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