Abstract

In this paper we have presented a transcoding algorithm to perform super-resolution of sub-sampled images. First of all we used 1D case in the fourier domain (DFT). Then we extended the same approach for the 2D case. After presenting the results for this we looked at the possibility of improving the performance of our algorithm. This was done by removing the need to perform matrix inversions (highly computation expensive operation). To map the operation to the DCT domain, we began by exploring the relationship between the DFT coefficients of a sequence with the DCT coefficients. Once the relationships were established we were able to extend our DFT approach to the DCT domain as well.

References

- Y. Altunbasak, A. J. Patti, and R. M. Mersereau, "Super-Resolution Still and Video Reconstruction from MPEG-Coded Video", IEEE Transactions on Circuits and

**Index Terms**

  Computer Science
  Image Processing

**Keywords**

  DFT  DCT  MPEG