We have developed a wireless image transfer system employing the adaptive resolution vector quantization algorithm. This system is composed of three blocks. The first stage consists of image capture and vq compression. The second stage is the wireless transfer based on IEEE802.11b. The third stage consists of vq decompression and display process. These blocks organize pipeline stages. We have measured the performance of the system. The result of measurement shows that the encoding time is within 0.7 second for any picture (XGA 1024x768 pixels), and that the decoding is within 1.6 second.
Wireless Image Transfer System Based on Adaptive Resolution Vector Quantization Technique

Adaptive Resolution VQ Technique for High Quality Compound Image Compression

In the case of high compression ratio, no PSNR degradation by VQ method employing adaptive resolution transform comparing to JPEG and JPEG-2000. It is extremely effective to still image in order to achieve high quality compression.

Comparison of decompressed image (XGA) for VQ and JPEG-2000

Session# AIVP-P7.1: Adaptive Resolution Vector Quantization Technique and Basic Codebook Design Method for Compound Image Compression

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