configurations. It is shown that these filters are valuable for real-time
image and video coding and are very easy to implement on VLSI

[16] A. N. Akansu, R. A. Haddad, and H. Caglar, "The binomial QMF-
wavelet transform for multiresolution signal decomposition," *IEEE*

clique has the property that

$$\forall s, r \in S, s \notin \partial s, r \in \partial s \Leftrightarrow s \in \partial r. \tag{4}$$

Moreover, the essential property of an MRF

$$\forall s \in S, p(x_s | x_r, \forall r \neq s) = p(x_s | x_r, r \in \partial s) \tag{5}$$

means that the conditional probability depends only on the neighborhood constraints. This property facilitates the ICM implementation described in Section IV.

Stevenson [9] has investigated a type of convex function known

as opposed to *half* of the interval during the original quantization.   the local properties of the scene. In general, the Markov random field

TABLE I
PSNR Evaluation of the Results

image	bit rate (bpp)	DCT (dB)	DCC (dB)	ICM (dB)	DCCICM (dB)
lena	0.296	27.61	27.67	28.03	28.35
peppers	0.303	27.69	27.79	28.30	28.75
USC girl	0.197	30.03	30.39	30.94	31.25