

### **Feedback for EEE\*\*\* Session: 2012-2013**

**Feedback:** Please write simple statements about how well students addressed the exam paper in general and each individual question in particular including common problems/mistakes and areas of concern in the boxes provided below. Increase row height if necessary.

**General Comments:**

On average, most students showed good performance. The most common mistake was not reading the questions carefully and not answering to what the question has asked.

**Question 1:**

This was the least popular choice out of the four questions. However, the performance in most parts of this question was satisfactory. Some solutions were suffered from not understanding the question. For example in 1.a, you are required to write the purpose of an “orthogonal “ transform. However, most students wrote the use of a transform in general. 1.b was answered well. In 1.c most students forgot the transform was a 1D block transform, thus, did not explain adequately how a block transform is used in a 2D image. Part d was not answered well. Most students did not understand the concept of energy loss due to quantization of coefficients. To compute this you need to consider the difference of the original and dequantized magnitude of the quantized coefficient.

**Question 2:**

This question was attempted poorly. In part 2.a, most solutions showed wrong steps for the inverse transform. Solutions, ignored the order of steps. Especially part 2.b was not answered well. In 2.b, most solutions did not multiply the two matrices to obtain an expression for the low pass and high pass filters in terms of the variables  $a$  and  $b$ . In 2.d, some answers considered the dyadic decomposition as opposed to full tree decomposition.

**Question 3:**

Question 3 was answered well in general. Parts 3.a and 3.c were answered well. However, the solution to part 3.d was very poor. Most students missed the second part of the question 3.b.

**Question 4:**

This was the most popular and best answered question in the exam. However, most students struggled with the part 4.c, where the most answers were very poor. Some solutions to 4.d were incomplete as you only mentioned which sub bands to choose, but did not mention how to choose a coefficient from a subband.

**Question 5:**

**Question 6:**

**Question 7:**

**Question 8:**