Examination Feedback for EEE6081 – Visual Information Engineering
Spring Semester 2011-12

Feedback for EEE6081 Session: 2011-2012

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. The performance in questions that require descriptive answers were poor. Specific comments for each question are as follows:

Question 1:

The performance in this question is average. The question covers the knowledge on digital representation of images and video and appreciation of bandwidth requirements and methods for bandwidth reduction. Parts (a) and (b) were not answered well as most students failed to demonstrate how to change the quantization parameter in re-sampling. Part (c) was answered well in general. Most students lost marks in parts (e) and (f) as not answering to what exactly asked in the question. Please refer to the model solutions.

Question 2:

The performance in this question is average. Part(a) was the poorest. Most students assumed the two filter coefficients were the same {a a} as opposed to starting with two different coefficients {a, b} and proving that a=b. Performance in part (b) was satisfactory. Most students failed to appreciate the use of low pass filter in part(c). In Part (d) most marks were lost, as the answers included removing the entire high frequency bands as opposed to removing the coefficients whose magnitudes were less than a threshold. Answers to part (e) were satisfactory, but some students just rewrote the answer to a similar question in a previous exam leading to incorrect answers.

Question 3:

Most parts of this question required descriptive answers. Most common mistake was most answers were incomplete. Parts (a), (c) and (d) were answered well. Most students failed to derive the expression for complexity in part(b). Part (e) was not answered well.

Question 4:

This is the most popular question. Most of the part (a) and (b) solutions only included the first level of transform and failed to mention that the low pass signal is repeatedly decomposed using the single-level pyramid. In part (c), some students did not notice the question was about a 2-D signal as opposed to a 1-D signal. The most common mistake in part (d) was failing to appreciate the use of pyramid transform. Most students answered based on the DWT. The fusion function was not explained well, by differentiating the treatment for low and high frequency subbands. Part (e) was generally well answered.

Question 5:

Question 6:

Question 7:

Question 8: