

**EE 706 – Final Exam**  
**Due: 13. June. 2005**

**Q1 (%60)** Given an image write a user friendly program to extract one of the given MPEG7 features from each of the groups. Your program should return the features in a text file.

Group1	Group2
Dominant color	Region-based shape descriptor
Color structure	Motion trajectory
Edge histogram	Motion activity

Also give a brief explanation about the features you have selected. In your program you can use any high level language you want.

**Q2 (%40)** Briefly answer each of the following questions

- a) How can you use Kalman filters in video stabilization?
- b) What do you understand from gait recognition?
- c) Propose a method for stereo video coding?
- d) How can you apply wavelets to hierarchical mesh representation?
- e) What is fractional Fourier transform? Also name a few applications.
- f) What do you understand from holographic video?
- g) What is the use of hierarchical 2D dynamic meshes? How can you determine the motion data for such a mesh?
- h) What is DVB-T?