AI772: COMPUTER VISION

(Assignment – 1)

1 March 2012 (**Due: 13 March 2012**)

Instructions: Use the $\LaTeX\,2_\varepsilon$ style file given on the home page and submit a PDF document.

1. Why is the irradiance of an image surface given by the formula below independent of the distance ofrom the surface? After all, when the lens is twice as far from the surface, it collects only one quarter as much of the light emitted from a given surface patch.

$$E = L\frac{\pi}{4}\left(\frac{d}{f}\right)^2 \cos^4 \alpha$$

2. Choose any **one** of the topics given below and write a 2-page report.

   (a) Mean Shift Filter for segmentation
   (b) MINPRAN algorithm
   (c) Assessing quality of segmentation algorithms
   (d) Graph-based segmentation techniques
   (e) Wavelet-based texture segmentation