**COL783 : Digital Image Analysis**

**Assignment 4**

**Image Inpainting:**

1. We have the option of taking the image as RGB / YUV channel. Our algorithm applies individually on each of three channels. Results produced on YUV are better compared to RGB.
2. We experimented with two different types of diffusion:
   1. Isotropic diffusion: Conduction coefficients are same in all the directions. Hence this gives us the effect of laplacian blur and doesn’t not preserve edges.
   2. Anisotropic diffusion: Conduction coefficients are different in each direction and it depends on magnitude of gradient in that direction. This helps in preserving edges, but is slot compared to isotropic diffusion. We tried following two different functions :
      1. Exponential flux
      2. Quadratic flux
3. Results produced with anisotropic diffusion were much better compared to isotropic diffusion.

**Drawback**

1. Does not preserve texture in the image.
2. Slow compared to seam carving