

# Image Signal Processing

## Lab-1

### Geometric Transforms

1. Translate the given image (`lena_translate.pgm`) by  $(t_x = 3.75, t_y = 4.3)$  pixels.
2. In-plane rotate the given image (`pisa_rotate.pgm`) about the image centre, so as to approximately straighten the Pisa tower.
3. Scale the given image (`cells_scale.pgm`) by 0.8 and 1.3 factors.

Use bilinear interpolation during target-to-source mapping.

How to read and write pgm images in Scilab?

1. `demo.sci` : demo file that shows how to read images into Scilab, write images to a file and display the image files from Scilab.
2. `pgmread.sci` : the file that contains functions to read (`pgmread`) and write (`pgmwrite`) the images. Please use this function in subsequent assignments also.
3. To execute a file (say, `file.sci`), type the following in Scilab command window:  
`cd 'PATH' // where PATH is the location of the file`  
`exec file.sci`