Report : Assignment 2

PROBLEM 1: Match transformed images using SIFT features.

The results of this problem is saved in folder /Problem 1. `lena.bmp' is used as the input image for this problem. Resultant images and matrices are stored in the folder /Problem 1/results.
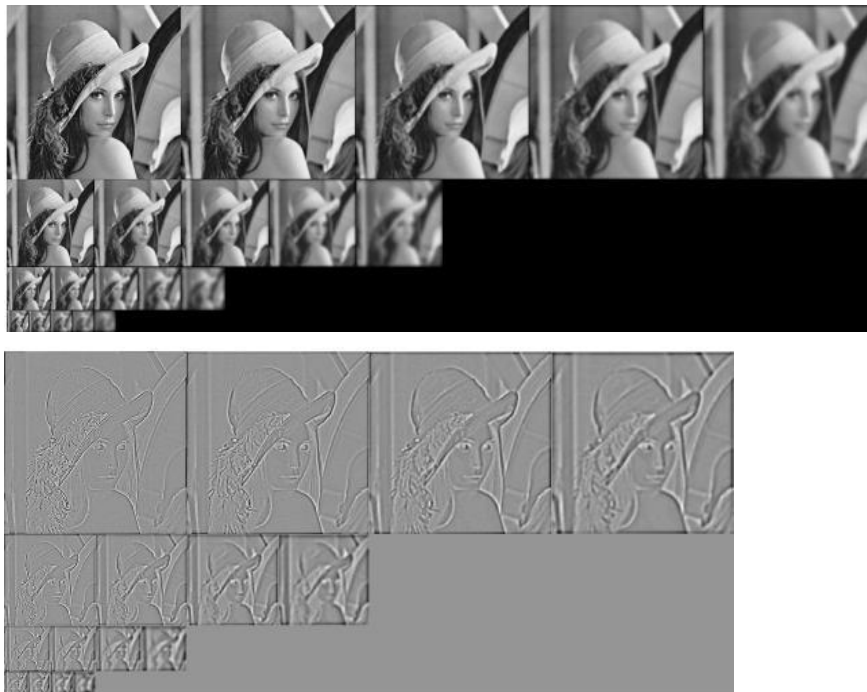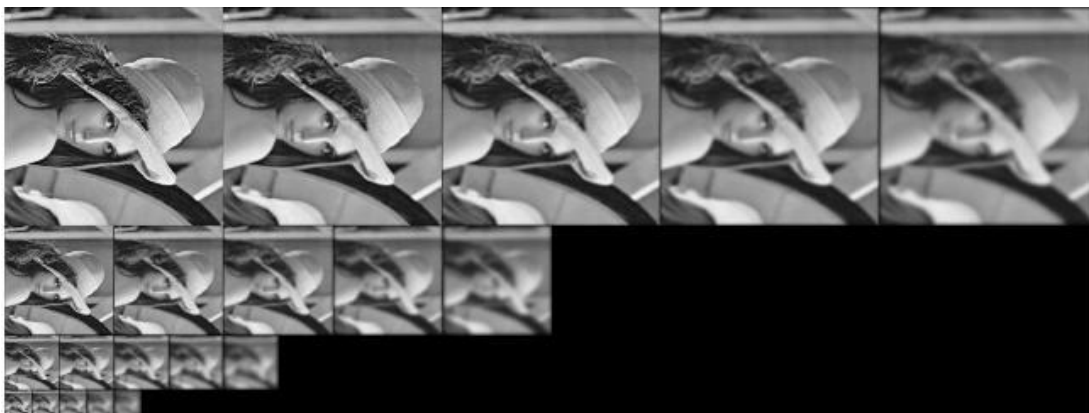

Fig 1. Input image
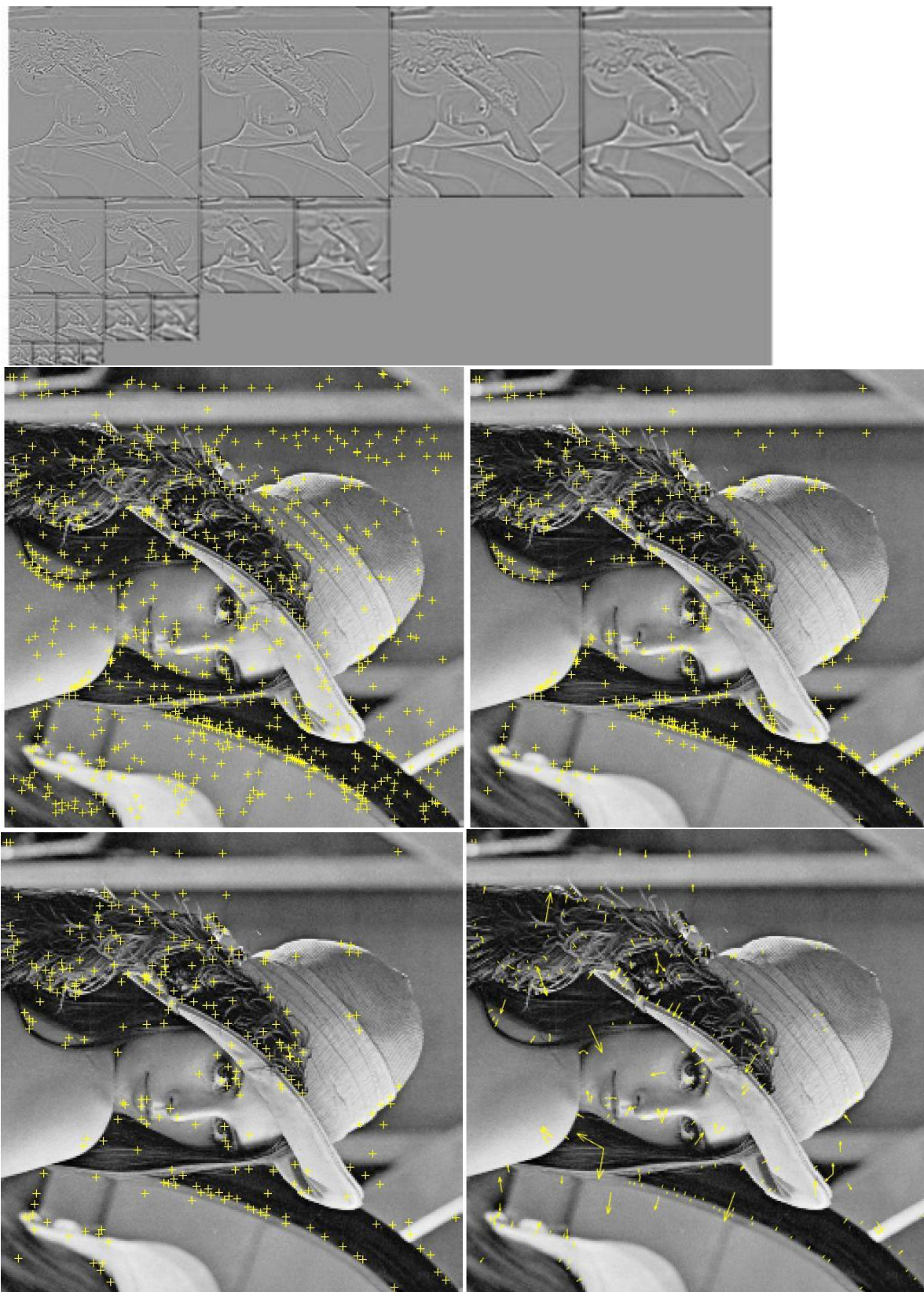
Fig 2 : Output for input image from STEP 1 – STEP 3

Fig 3 : Output for rotated images.

Fig 4 : Aligned Image.

Both the matrices look similar.

PROBLEM 2: Scene Matching with SIFT features.

The results of this problem is saved in folder /Problem 2. `wadham001.pgm' is used as the reference image for this problem. Aligned images and transformation matrix are stored in the folder /Problem 2/results.

Fig 5 : Reference Image.

Fig 6: Aligned Image

PROBLEM 3: Object Recognition with SIFT feature

The results of this problem is saved in folder /Problem 3. `phone0003.pgm' and `nutshell003.pgm' is used as the model image for this problem. Aligned images and transformation matrix are stored in the folder /Problem 3/results.
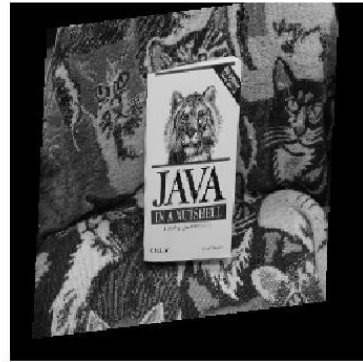

Fig 7: Model Images.

Fig 8: Best matching for nutshell003.pgm

Fig 9: Best matching object for phone0003.pgm