Image Processing
Labs 2

Bachelor in Computer Vision

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Image filtrering and histogram

Problem 1

In this exercise we consider the following image Âńthe galaxyÂż (figure : 1).
Test on this image the following alogrithms: Robert gradient, sobel, gradient, Laplacian.
Join a copy of your Matlab code in the report.

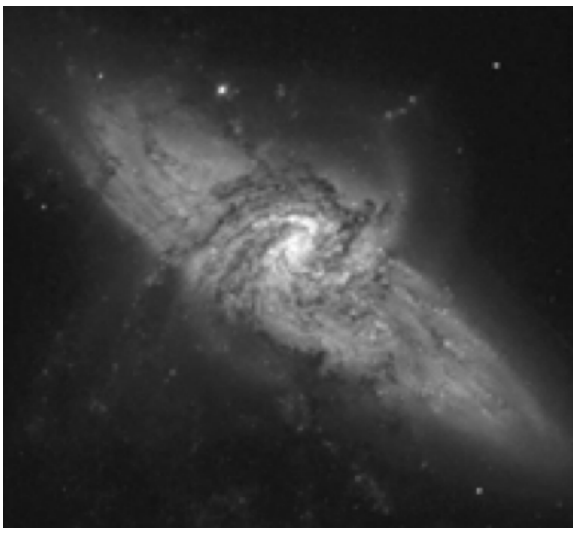

Figure 1: Test image

Problem 2

Add a gaussian white noise on the image (figure : 1) and then use a spatial low-pass filter to eleminate the artefacts.
Give the measure of the PSNR of the image with noise and of the filtered image.
Then on the original image use a spatial high-pass filter on the originalimage to enhanced the transitions.
Join a copy of your Matlab code in the report.

Problem 3

Enhance the contrast on the scan image (figure : 2. Join a copy of your Matlab code.

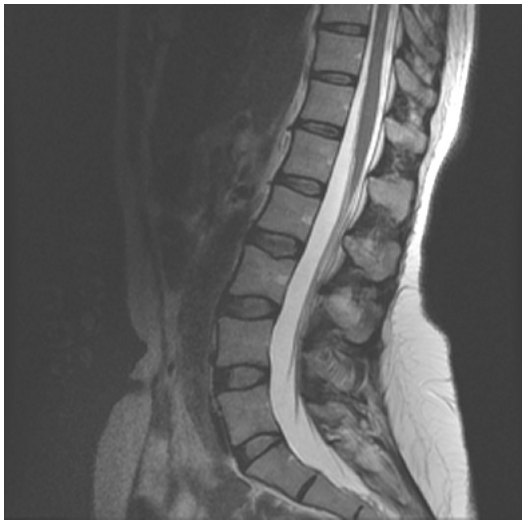

Figure 2: Scan Image