Final Project Report

Part A: Data Construction and Parameter-Setting:

Figure from Matlab: Cropped Barbara image	Figure from Matlab: Noisy Barbara image	
Insert PSNR value of noisy image:		
Part B: DCT Dictionary		
How is the error constraint satisfied for ea	ach patch in batch mode?	
Insert average MSE of the reconstruction:		
Insert average number of non-zeros of the reconstruction:		
Discuss the obtained values below:		

DCT reconstructed image:	
	Enter epsilon value:
	Enter PSNR of reconstruction:
Figure from Matlab: DCT reconstructed image	
Discuss the obtained results below:	
Part C: Procrustes Dictionary Learn	ning
The obtained learned dictionary:	Discuss the obtained dictionary:
Figure from Matlab: Learned dictionary	

Average MSE and number of nonzeros as a function of the iteration:		
Figure from Matlab: Average MSE vs. # iterations	Figure from Matlab: Average # nonzeros vs. # iterations	
Discuss the obtained curves:		
Procrustes reconstructed image:		
	Enter epsilon value:	
	Enter PSNR of reconstruction:	
Figure from Matlab: Procrustes reconstructed image		

Discuss the obtained results below:
Compare the results of the DCT dictionary and the learned dictionary:
Part D: SOS boosting
SOS-boosted reconstructed image:
Enter epsilon value:
Enter rho value:
Enter PSNR of reconstruction:
Discuss the obtained result and compare to DCT and learned dictionary: