

# CS663: Digital Image Processing

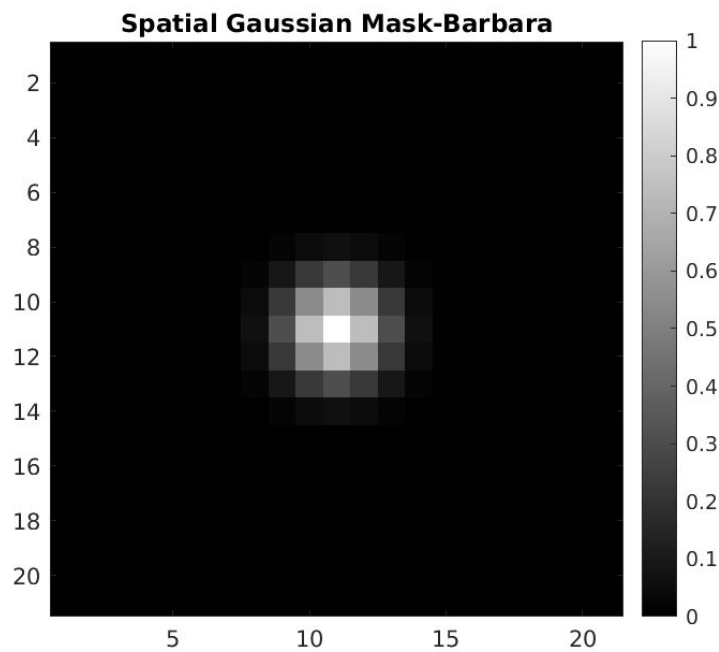
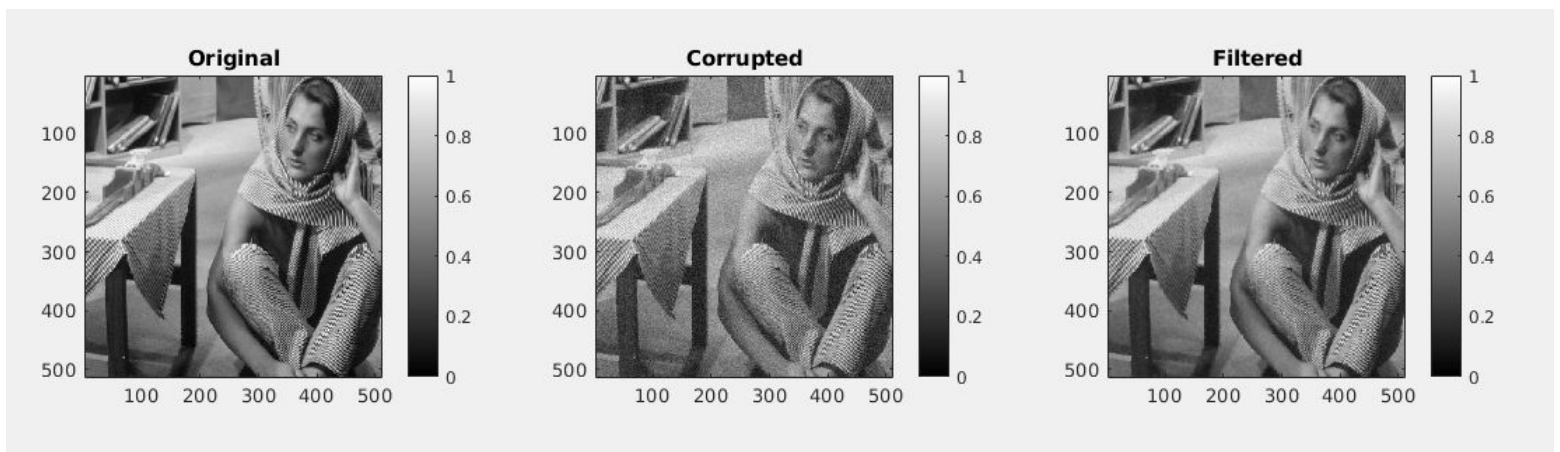
## Assignment 2 - Report

Adarsh Kumar - 160110071  
Kumar Ashutosh - 16D070043  
Nisha Brahmkar - 16D070019

### QUESTION-2

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#### Part A - Barbara



RMSD (Original and Corrupted) = 5.0159

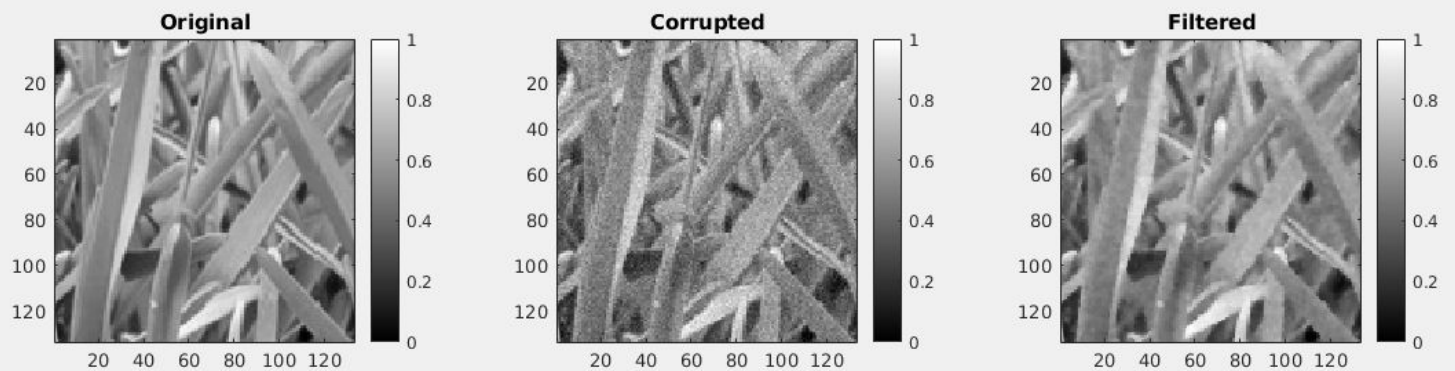
Optimal values

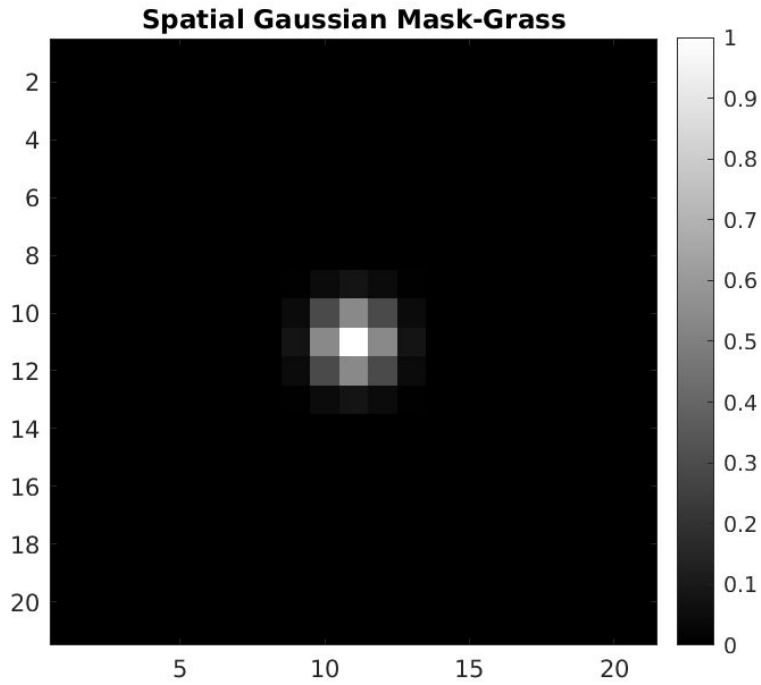
RMSD = 3.2891 ,    *Spatial*  $\sigma_d = 1.3$  ,    *Intensity*  $\sigma_i = 11$

Different $\sigma$ cases	RMSD value
$0.9 * \sigma_d$ and $\sigma_i$	3.2957
$\sigma_d$ and $0.9 * \sigma_i$	3.2951
$1.1 * \sigma_d$ and $\sigma_i$	3.2954
$\sigma_d$ and $1.1 * \sigma_i$	3.3310

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### Part B - Grass





RMSD (Original and Corrupted) = 11.8676

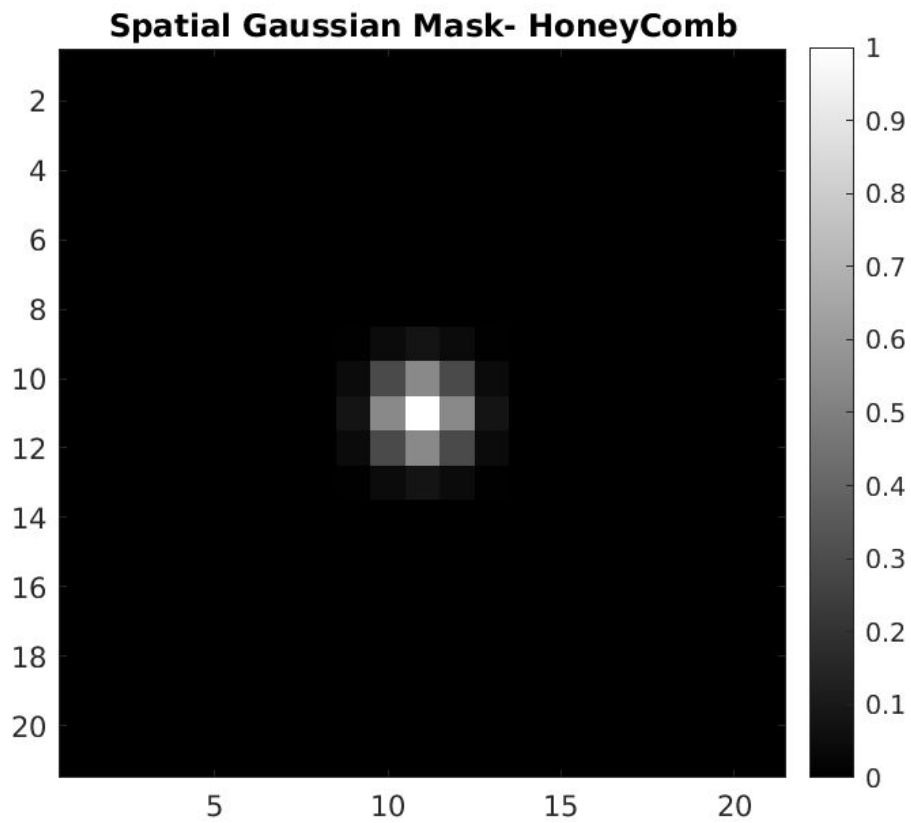
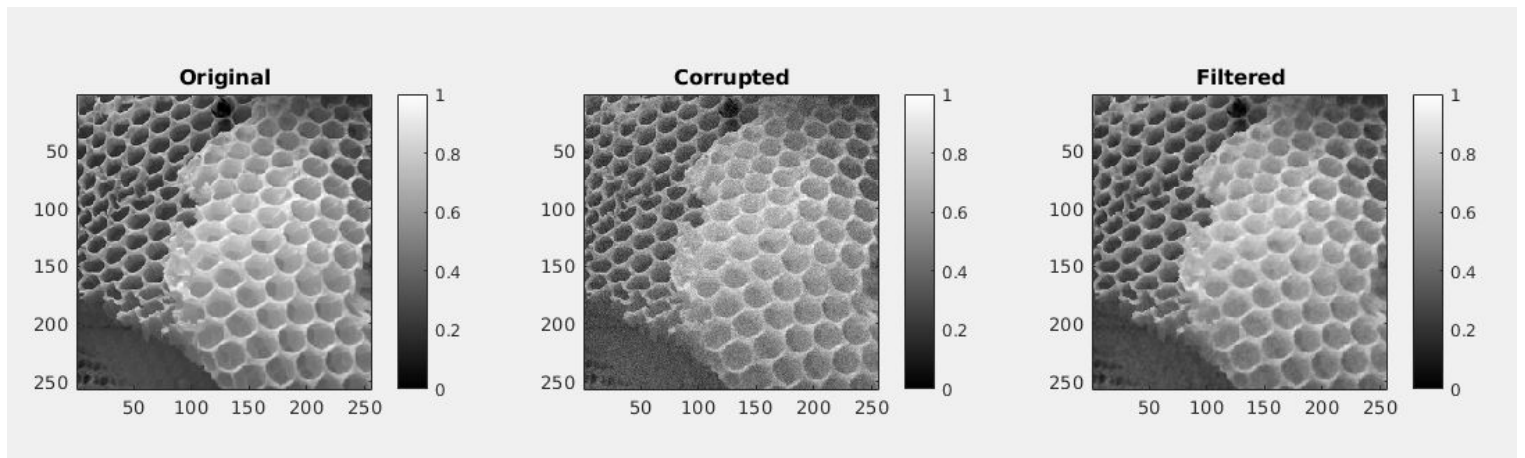
Optimal values

RMSD = 7.3047 ,    *Spatial*  $\sigma_d = 0.9$  ,    *Intensity*  $\sigma_i = 37$

Different $\sigma$ cases	RMSD value
$0.9 * \sigma_d$ and $\sigma_i$	7.4809
$\sigma_d$ and $0.9 * \sigma_i$	7.3802
$1.1 * \sigma_d$ and $\sigma_i$	7.7543
$\sigma_d$ and $1.1 * \sigma_i$	7.3801

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## Part C - HoneyComb



RMSD (Original and Corrupted) = 12.7189

Optimal values

RMSD = 7.2555 ,    *Spatial*  $\sigma_d = 0.9$  ,    *Intensity*  $\sigma_i = 40$

Different $\sigma$ cases	RMSD value
$0.9 * \sigma_d$ and $\sigma_i$	7.3717
$\sigma_d$ and $0.9 * \sigma_i$	7.3591
$1.1 * \sigma_d$ and $\sigma_i$	7.3331
$\sigma_d$ and $1.1 * \sigma_i$	7.2810

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