

Project #2

assign April 20, 2020 due April 23, 2020

According to the DFT property of *Laplacian*, it appears we may implement Laplacian operation by designing a digital filter with frequency response $H(u,v) = K(u^2+v^2)$ where K is a scaling factor to make the magnitude of $H(u,v)$ in the range $[0, 1]$. Use this frequency-domain scheme to find the Laplacian image for the bird image.

Your report (Word or pdf format) should contain:

- Source codes
- Figures of the Fourier magnitude spectra of the *bird* image before and after applying Laplacian filtering
- Figure of the Fourier magnitude of Laplacian filter $H(u,v)$
- Figure of the output image
- Table of top 25 DFT frequencies (u,v) before and after Laplacian filtering

Upload your report to new e3 before midnight of due date!

