**Vision Based Automation**

**Name: Vivek Chandrashekhar Rugale**

**GR No.: 11810369**

**Div.: TY-C**

**Roll No.: 24 (Batch B1)**

**LAB 8: Gabor transform based object feature representation.**

# -\*- coding: utf-8 -\*-

"""

Created on Tue Dec 1 19:32:34 2020

@author: VIVEK RUGLE

"""

import math

import cv2

import numpy as np

import matplotlib.pyplot as plt

#Read the img and convert to float

image = cv2.imread("cows.jpg",0).astype(np.float32)/255

#Gabor filter construction

kernel = cv2.getGaborKernel((15,15), 5, 1, 10, 1, 0, cv2.CV\_32F)

kernel /= math.sqrt((kernel\*kernel).sum())

#Filter the image

filtered = cv2.filter2D(image, -1, kernel)

#Visualize the result

plt.figure(figsize=(8,3))

plt.subplot(131)

plt.axis("OFF")

plt.title("Image")

plt.imshow(image, cmap="gray")

plt.subplot(132)

plt.title("Kernel")

plt.imshow(kernel, cmap="gray")

