## Image Analysis and Object Recognition SoSe2022

**Final Project SoSe2022** 

# Bauhaus-Universität Weimar

## **Submitted by**

Naga Padma Veerla (Matrikelnr: 124268)

Sushmarani Hurugalavadi Krishne Gowda (Matrikelnr: 124314)

Zafrul Islam Shaik (Matrikelnr: 124302)

#### Submitted to:

Univ.-Prof. Dr.-Ing. habil. Volker Rodehorst

M.Sc.Christain Benz

## Task 1

d. The Template matching produces different results when it is scaled up or scaled down



Before scaling of template



After template is scaled down



After template is scaled up

## e. Exemplary Results























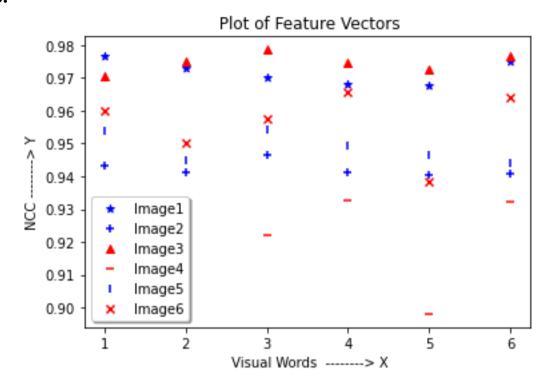


#### Task 2

### a. Feature vector of all images

[0.9765759009496094 0.9434142192908879 0.9706744310100839 0.921644450356053 0.953700099793419 0.9598625686326585 0.972870957745455 0.9411536222502908 0.9748753435652696 0.9252713717314319 0.9447707643502927 0.9501041976937845 0.9702119342433213 0.9463605095024065 0.9785818010617313 0.921883392412825 0.9540926835733039 0.9574170293974006 0.9680525353056187 0.9411297770376515 0.9746518388727781 0.9326989190039723 0.9493836414108896 0.9654802136990205 0.9675863150764341 0.9405637151971145 0.9724716636262695 0.8980857864158507 0.9466190639423734 0.938526359258671 0.974962865815436 0.9406060873316718 0.9764689024435197 0.9324602858542445 0.9440927638261646 0.96394725936270631

b.



- c. Matlab code has been attached.
- **d.** After running the feature vector of image 5 and 6 on the Training set of 1 to 4 image, for both the image we got resultant as Violin.

