

Exercise 2 – Theory Part

1. The unnormalized FD of a given template object is calculated as

The represented object is

iv) a triangle.

The object is located in the image at

iii) (10,10)

The number of used boundary points is

ii) 100

2. Figures b)-d) depict the amplitude of each component of a complex-valued Fourier descriptor obtained from the original descriptor (amplitude shown in Figure a)) by several transformations. Denote for each case (b-d) to which effects the computed descriptor is invariant or robust. i) translation ii) rotation iii) scale iv) noise

b) iii

c) iii

d) i