CAED-2K-13 CP

Lab 01

Q1) Operate with the vectors

V1 = [1 2 3 4 5 6 7 8 9 0]

V2 = [0.3 1.2 0.5 2.1 0.1 0.4 3.6 4.2 1.7 0.9]

V3 = [4 4 4 4 3 3 2 2 2 1]

a) Calculate, respectively, the sum of all the elements in vectors V1, V2, and V3

b) How to get the value of the fifth element of each vector?

What happens if we execute the command V1(0) and V1(11)?

Remember if a vector has N elements, their subscripts are from 1 to N.

c) Generate a new vector V4 from V2, which is composed of the first five elements of V2.

d) Generate a new vector V5 from V2, which is composed of the last five elements of V2.

e) Derive a new vector V6 from V2, with its 6th element omitted.

f) Derive a new vector V7 from V2, with its 7th element changed to 1.4.

g) Derive a new vector V8 from V2, whose elements are the 1st, 3rd, 5th, 7th, and 9th elements of V2.

h) What are the results of

- 9-V1
- V1*5
- V1+V2
- V1-V3
- V1.*V2
- V1*V2
- V1.^2
- V1.^V3
- V1^V3
- V1 == V3
- V1>6
- V1>V3
- V3-(V1>2)
- (V1>2) & (V1<6)

- (V1>2) | (V1<6)

Q2) Extract a 4x4 matrix from the 6x6 matrix and 4x1 matrix from 6x1.

Q3) Find the inverse of a 2x2 matrix using MATLAB.