

Edge AI & Robotics : Data Science

Lab Exercise I (Python)

- (1) Create list, tuple, dictionary, set with different inputs.
- (2) Create the students name, roll numbers, subjects in dictionary.
- (3) Create a list of strings & print the first latter of each string.
- (4) Use the python method- append(), extend(), index(), pop(), count(), remover(), reverse(), len(), update(), add().
- (5) Execute several mathematical operations in set such as Union, Intersection and Symmetric Difference.
- (6) Plot the functions $F(x) = e^{-2x}$, $G(x) = x^2$.
- (7) Generate the random variables of following distributions,
 - (a) Poisson
 - (b) Normal
 - (c) Exponential
 - (d) Uniformfind the mean, variance, median, mode and also display the histogram, scatter plot of generated random variable.
- (8) Plot a contour and 3D plot of the bi-variate Gaussian distribution.