

## ES 111 – Assignment 6 CEP



Spring 2023

Submission Deadline: Friday, 19<sup>th</sup> May 2023 (3 pm) LATE SUBMISSIONS WIL NOT BE ACCEPTED

## **Complex Engineering Problem (CEP) - CLO-5**

**Implementation of central limit theorem on a data set.** Any programming language can be used to implement the following steps:

- 1. Import the data file named "Employee Data" (1 point)
- 2. Draw a **random** sample of size N=10 from salary column and apply  $z = \frac{\bar{x} \mu}{\sigma/\sqrt{N}}$ . Repeat this 300 times. You can store the resultant values of z in an array. (2 points)
- 3. Plot (make a graph) the stored Z array (1 point)
- 4. Repeat steps 2 and 3 for N = 300 and compare with the plot of step 3. (1 point)