
CE412 – PROJECT 4

“RANDOM NUMBER GENERATION”

In this project, you will create random numbers by using each of the following techniques that we have discussed in class.

- Midsquare Method
- Midproduct Method
- Constant Multiplier Method
- Additive Congruential Method
- Linear Congruential Method

Write a program to produce N random numbers. Your program asks the user the value of N and the method that will produce random numbers. Later, the program asks the corresponding parameters for each technique and produces the random numbers. After producing the random numbers, plot the histogram (the distribution) of the random numbers for you have produced in order to compare their uniformity. You may divide the $[0,1]$ range into 20 pieces and plot the percentage of the random numbers for each range

Project 4 Submission:

Name your program as *yournamePrj5.X* and submit it to Blackboard or e-mail it to tamer.dag@khas.edu.tr before December 22nd, 2016. You have to submit your project report (hard copy) in class on December 22nd, 2016. **No late submissions will be accepted for this project.**

Project 4 Grading:

- Project Report 30%
- Program 70% (If your program do not produce correct results, you might only get at most 35%)