

## Stochastic Simulation of Random Numbers Using Linear Congruential Method

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**Abstract :** Digital computers nowadays must be able to have a utility that is capable of generating random numbers. Usually, computer-generated random numbers are not random given predefined values such as starting point and end points, making the sequence almost predictable. There are many applications of random numbers such business simulation, manufacturing, services domain, entertainment sector and other equally areas making worthwhile to design a unique method and to allow unpredictable random numbers. Applying stochastic simulation using linear congruential algorithm, it shows that as it increases the numbers of the seed and range the number randomly produced or selected by the computer becomes unique. If this implemented in an environment where random numbers are very much needed, the reliability of the random number is guaranteed.

**Keywords :** stochastic simulation, random numbers, linear congruential algorithm, pseudorandomness

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