

SYLLABUS :-

Monte Carlo Simulations in Engineering: Basics of probability and statistics; Random variables; Random number generation – multiplicative congruential generators, tests for pseudorandom sequences, inversion method, acceptance-rejection method, discrete and continuous random deviates; variance reduction techniques; Application of Monte Carlo simulations to various problems of engineering interest, sampled from: numerical integration, reliability engineering, financial engineering, meteorology, statistical mechanics, queuing, random walk, stochastic differential calculus etc.