

Performance Evaluation of Computer Systems - Video course

COURSE OUTLINE

The objective of this course to understand the fundamental concepts of computer system performance evaluation.

This will include introduction to mathematical modeling techniques (Markov Chains, Queuing Theory and Networks of Queues), discrete event simulation modeling, experiment design, workload characterization, measurement of performance metrics, analysis and presentation of results.

COURSE DETAIL

Module No.	Topics
1	Overview Of Performance Evaluation
2	Random variables and common distributions
3	Stochastic processes
4	Markov and Semi-Markov chains
5	Queuing models and networks of Queues
6	Discrete event simulation modeling
7	Measurement techniques and tools

NPTEL

<http://nptel.iitm.ac.in>

Computer Science and Engineering

Pre-requisites:

Basics of Probability and Statistics.

Coordinators:

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8	Experimental design and analysis
9	Results presentation and analysis

References:

1. Raj Jain, "The Art of Computer Systems Performance Analysis: Techniques for Experimental Design, Measurement, Simulation, and Modeling", Wiley-Interscience, 1991.
2. K.S. Trivedi, "Probability and Statistics with Reliability, Queueing and Computer Science Applications", John Wiley and Sons, 2001.