Université Polytechnique HAUTS-DE-FRANCE

Stochastic Processes/Queueing Systems : Modeling and Algorithms

ECTS
4 crédits

Composante
INSA Hauts-de-France, UPHF

Présentation

Description

Goal : To provide the key concepts in terms of network planning and interoperability for service provision in the Internet context.

List of subjects to be presented to the students :

Basic queueing theory.
Markov Processes and Markov Chains
Birth-Death Processes
Equilibrium Solutions for M/M/-/- Queues
Analysis of the M/G/1 queue
- Priorities in a M/G/1

Network of queues
Queueing theory in practice: traffic descriptors, delay and rate guarantees
Network optimization
- The shortest path problem
  # The Dijkstra Algorithm
  # The Ford Algorithm
  # The Floyd Algorithm
- Flow optimization
  # The maximum flow problem
  # The Ford-Fulkerson Algorithm
  # The minimum-cost maximum-flow problem

Informations non contractuelles.
Dernière mise à jour le 13 février 2024