

Lecture 21, November 13, 2008**1. Stochastic Petri nets (SPNs):**

- a) Definitions – PNs with timed transitions; time values have specific probability distribution function
- b) Using SPNs for performance evaluation - PN modeling and simulation
- c) Performance evaluation of a file transfer system over a network using SPN simulation – a case study with average response time and utilization as performance measures:
 - Modeling client-server architecture with Petri nets (client, server, network components)
 - Scenarios of client-server architecture
 - Client, server, network utilizations and system's response time
 - Using place invariants to prove properties of the client-server architectures
 - Results of experiments and their comparison with measured data
 - Further refinements of the client-server architecture PN model.

2. Project #2 – CP net Modeling of a Conference Support System - handout and explanation.