

## CIS 525 Software Development of Parallel and Distributed Systems Fall 2008

### Lecture 19: Tuesday, November 4, 2008

#### 1. Process nets vs. Petri nets:

- a) definition and example
- b) li and co relations for process nets.

#### 2. Hierarchical Colored Petri nets:

- a) example of phone system modeled as hierarchical Colored Petri net
- b) specification of multi-area phone system.

#### 3. Siphons and traps in Petri nets.

- a) Computing siphons and traps in Petri nets.
- b) Deciding liveness, non-liveness, deadlock-freeness in Petri nets.

### Lecture 20: Thursday, November 6, 2008

#### 1. Representation of time in Petri nets:

- a). time inscriptions assigned to transitions
- b). timestamps assigned to places
- c). equivalence of both representations of time in Petri nets
- d). strong and weak semantics of time in Petri nets
- e). computing reachability graph for timed Petri nets.