

EE/CprE/ComS 571X  
Discrete Event Systems Control

Homework # 9

Due:

**Problem 1** Consider the Alternating-Bit Protocol example shown in Page 6, Lecture 3.

1. Verify that  $L(P_s \| P_{ch} \| P_r) \uparrow \{acc, del\} \subseteq pr[(acc \cdot del)^*]$ .
2. Design a controller  $C$  such that  $L((P_s \| P_{ch} \| Q_r) \| C) \subseteq pr(K)$ .

**Problem 2** Do Problem 6 of Chapter 4.