



Worcester Polytechnic Institute
Electrical and Computer Engineering Department

Methodologies for System Level Design and Modeling - ECE 5723
Online Offering – Fall 2020
Homework 5: SystemC channels
Due Date: November 8

Description:

Example 4 in the lecture series on the SystemC channels uses multi-way shared bus, in which only one target at any one time can be used. In this problem, you are to design a multi-way shared switch, in which four different targets can be targeted at any one time. The same target should be allowed to be addressed by two initiators at the same time.

- A. Write SystemC description of this channel.
- B. Write a testbench and verify your design.

Attention:

This homework covers “Topic 6 - RTL communications” and “Topic 7 - SystemC abstract communication channels” modules on Canvas.

Deliverables:

All your SystemC codes and a complete report containing all parts of the assignment. Make sure that your deliverable follows all mentioned rules in the assignment part of the "*ECE5723 - Comprehensive Syllabus 2020.pdf*" file. The file has been posted on Canvas.
