## **LSU EE 4720**

Homework 4

Problem 1: Problem 2b from the 2015 Final Exam asks about our usual FP MIPS pipeline. An Inkscape SVG version of the FP pipeline can be found at

http://www.ece.lsu.edu/ee4720/2016/mpipei\_fp.svg.

(a) Solve Spring 2015 Final Exam problem 2b.

(b) Add by pass paths to the implementation from problem 2b needed so that the code from 2b executes without a stall.

**Problem 2:** Solve Problem 2c from the 2015 Final Exam, which asks about our usual superscalar pipeline.

An Inkscape SVG version of the ordinary 2-way superscalar MIPS pipeline used in 2c can be found at http://www.ece.lsu.edu/ee4720/2016/mpipei3ss.svg.

**Problem 3:** Solve Problem 1 from the 2015 Final Exam, which asks about a modified version of our two-way superscalar MIPS implementation.

An Inkscape SVG version of the fused-add 2-way superscalar MIPS pipeline used in 2c can be found at http://www.ece.lsu.edu/ee4720/2015/fess.svg.