

# ECE 426 PROJECT 2

For this project you will design a four function ALU in VHDL. The data path will be implemented STRUCTURALLY with the given parts. The control logic will be implemented behaviorally.

The given structural parts are an ADDER/SUBTRACTOR, BI-DIRECTIONAL SHIFT REGISTERS, and MUXES. The four functions are add, subtract, divide and multiply. You should use the iterative methods discussed in class to accomplish the divide and multiply with the given parts.

The parts are in the directory: `/users/kschoon/426_public/project2`

You will need to make a local copy of the parts and compile them into your working directory.

I have also included the testbenches I used when creating the parts, so you can test their individual behavior and see how they are instantiated.

The file `testbench.vhdl` is a sample of what your testbench for your project should look like. This example tests only the divide function. Yours should test all the functions. Your ALU does not need to fit this port map.

The README file in the parts directory contains a brief description of the parts. Please e-mail any questions to KSCHOON.