

## Emir Topal 2517076 – HW1 Report

This report contains the detailed RTL Views of the implementation of the Basic Computer I of Mano. The basic computer is studied in detail in the lectures and throughout the course. The basic computer consists of 7 different modules, BC\_I as top module, controller, data path, multiplexers, registers, memory unit, and ALU. The RTL views of these modules are shown on the following figures.

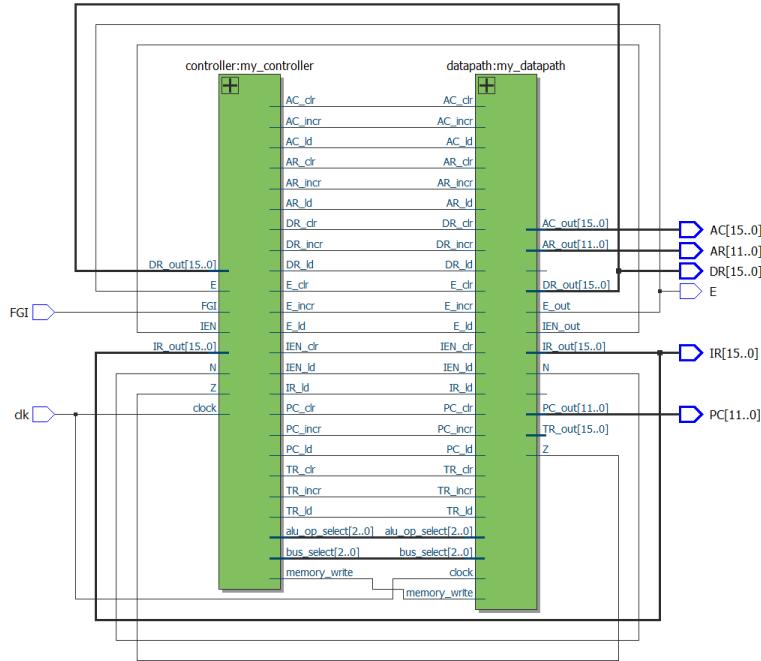
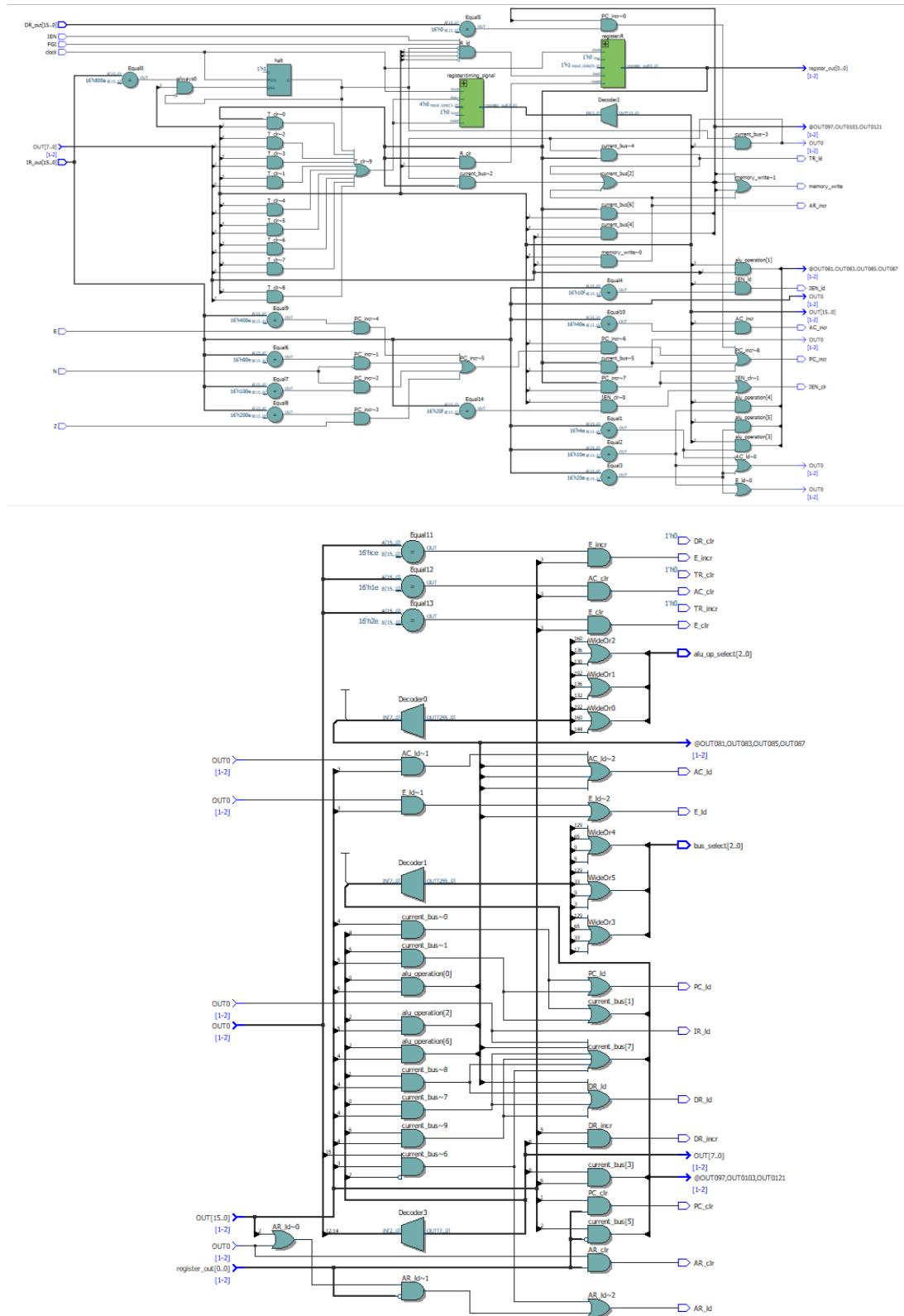


Figure 1. BC\_I RTL View



## Figures 2.-3. RTL Views of Controller Module

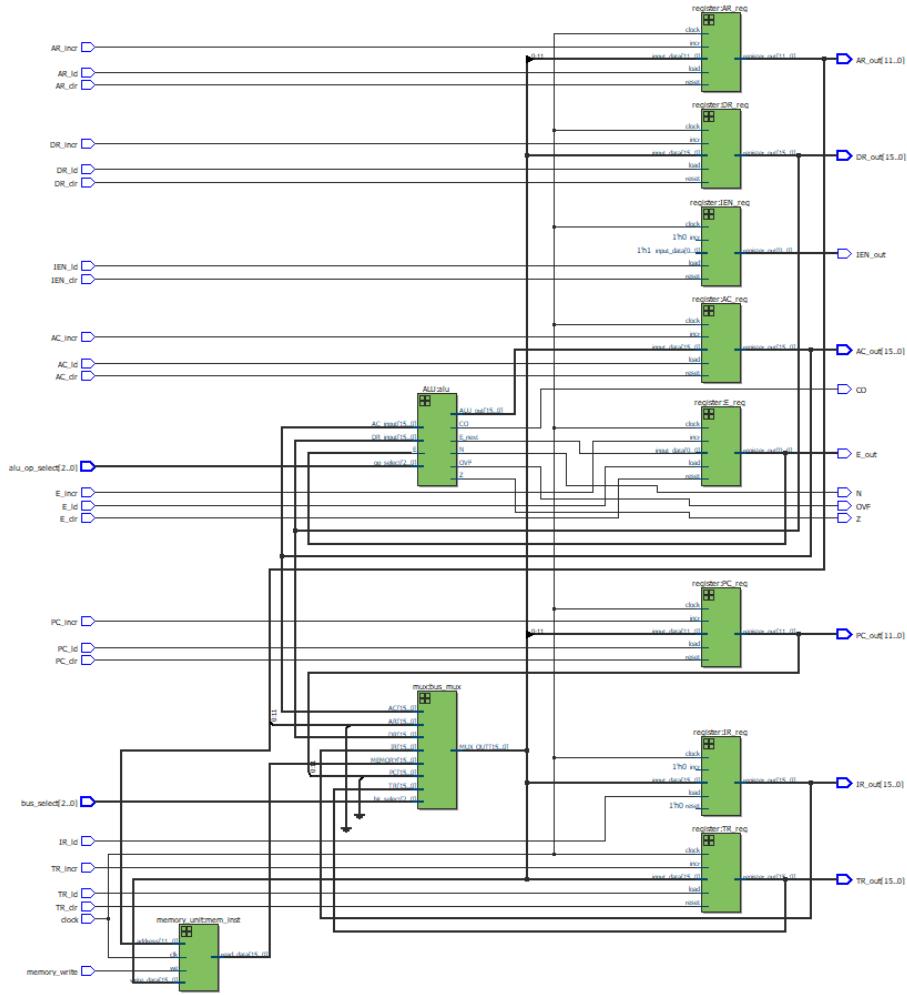


Figure 4. RTL View of Data Path Module

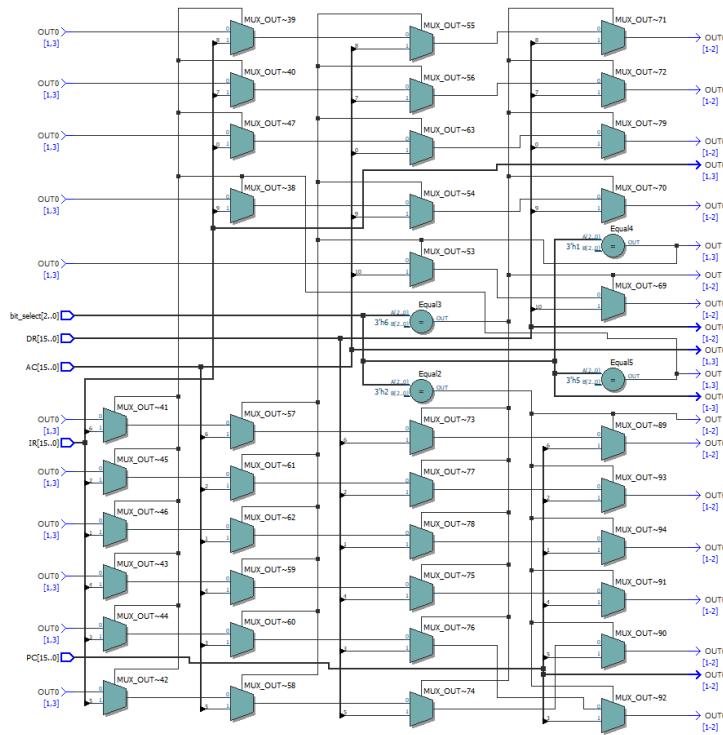


Figure 5. RTL View of Multiplexer Module

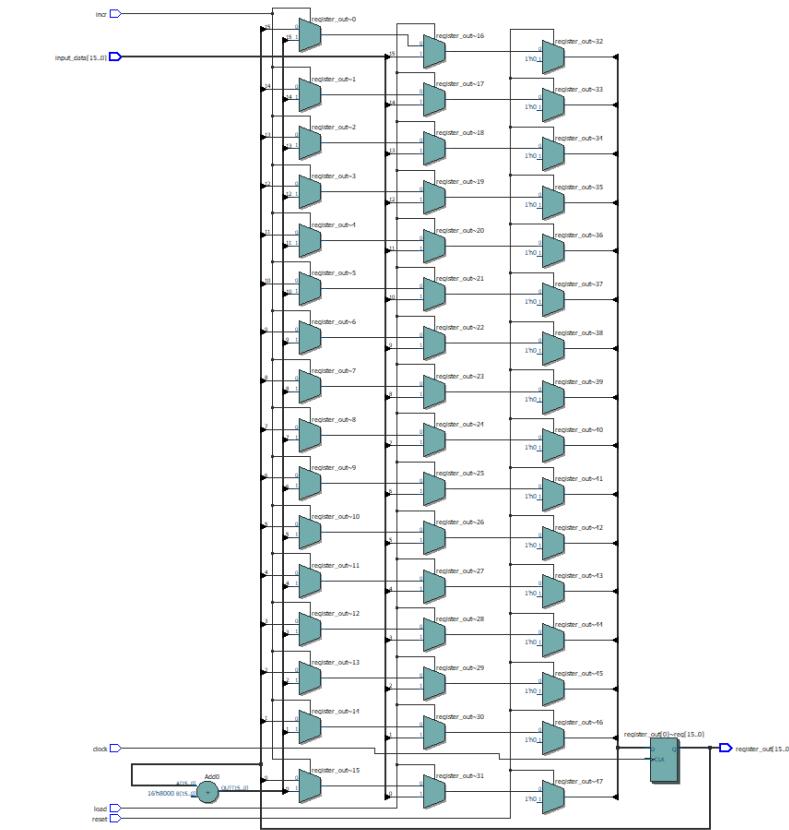


Figure 6. RTL View of Register Module

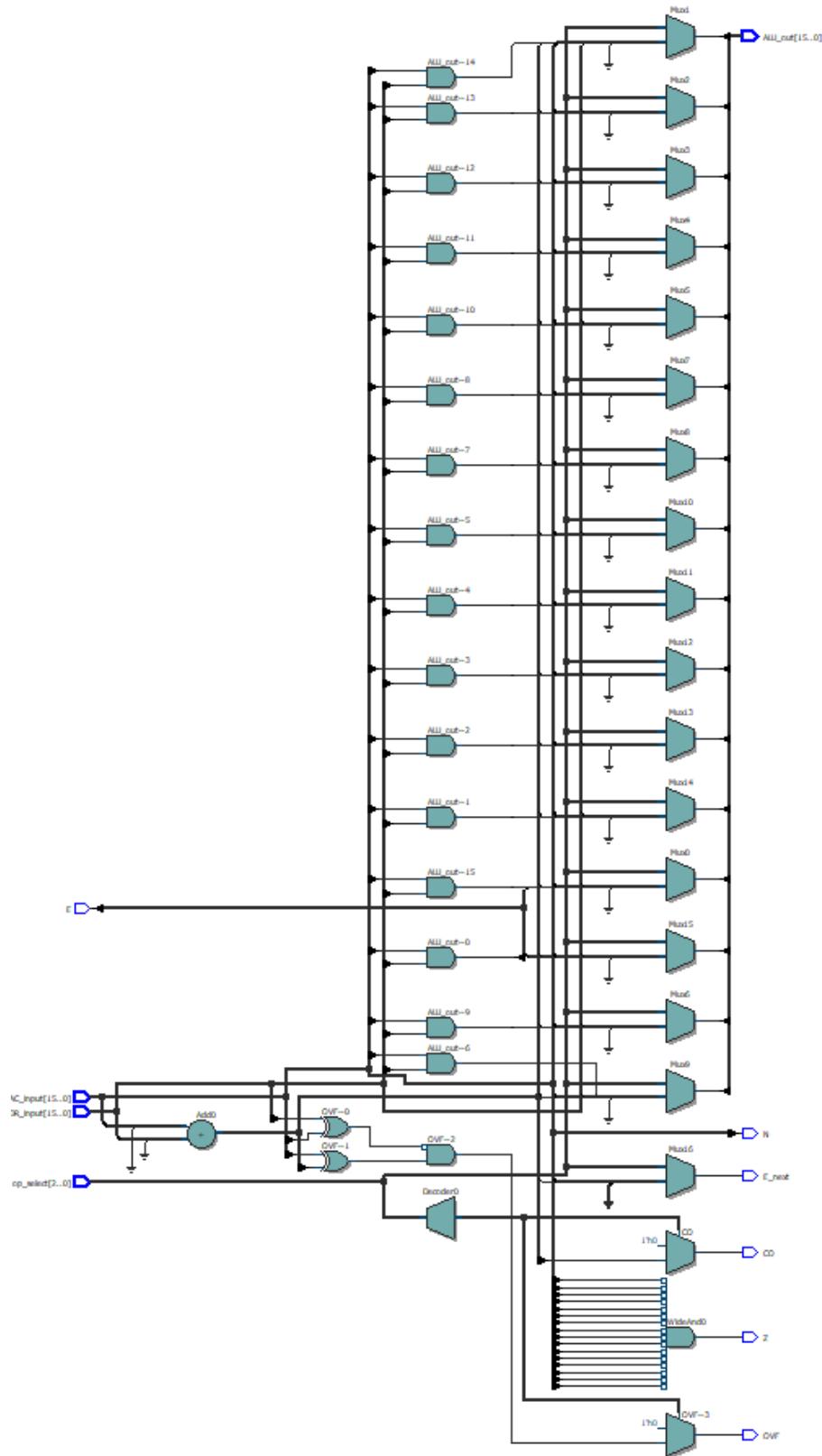


Figure 7. RTL View of ALU Module