Lecture 5 Learning outcomes

Upon successful completion of this module, you will be able to:

- Define and describe functionalities of logical units for integer operations add, sub, and, or.
- Design and trace multiplication unit.
- Represent FP numbers in IEEE 754 representations.
- Describe the algorithm and hardware diagram of FP addition
- Design an FP multiplication unit.

Lecture 5 Activities

Lecture 5 study is split into 3-day work with the 4th day of the week designated for Test 2.

Day 1:

Session I:
View Lecture 5a: ALU
Study zyBook 3.1 & 3.2

Session II:
View Lecture 5b: Integer Multiplication
Study zyBook 3.3

Session III:
Recap and practice (selected H3 problems)

Day 2:

Session I:
View Lecture 5c: IEEE 754 FP representations
Study zyBook 3.5 (FP representation part, i.e. read up to but not include FP addition)

Session II:
View Lecture 5d: FP addition
Study zyBook 3.5 (Floating-Point addition).

Session III:
Recap and practice
Work on Homework H3

Day 3

Session I:
View Lecture 5e: FP multiplication.
Study zyBook 3.5 (complete the whole section 3.5).

Session II:
Read zyBook 3.9 (exercise not required.)

Session III: (50 minutes)
Review and Catchup
Complete Homework H3

Day 4
Review, study and take Test 2.

Assignment Checklist: -- due Th 6/17

Z5: zyBook 3.1-3.3
Z6: zyBook 3.5
H3: Homework #3
Take Test 1 between 6/17 – 6/20