**[100 points]**

**Teams:** Form groups of 4 each. Email Chi with the team name and members.

**Task:**

Using the Verilog, write code that computes sinh(x), cosh(x), and ex of 32 bit IEEE-754 floating point numbers without using multiplication operations. There will be extra credit for any additional functions you generate.

**Proposed steps:**

1. Read a number from memory (store any constants in memory)
2. Computer sinh(x)
3. Computer cosh(x)
4. Computer ex
5. Store result (and anything else interesting) in memory

**Schedule:**

Sunday, 7 May, 11.59pm: Verilog code due on Blackboard

Monday, 9 May, 11.59pm: No changes allowed after submission

Documentation due on Blackboard as PDF

Tuesday-Friday 9-12 May: 10 min demonstration, in Chi’s office

**Grading:**

Source code: 30%

* Commented!!!!

Oral presentation & demonstration: 30%

* 10 minutes
  + Approach, Code discussion, Issues and solutions, Your Results, and Demonstration with Chi’s numbers

Final report: 30%

* Total Computer Cycles for each function
* Total Processing time assuming a 32kHz clock, a 1MHz clock, and a 1 GHz clock for each function
* CPI for each function
* All implemented algorithms must be described.
* Show sample input and output data

Peer review: 10%