CMPS 5443 – Parallel Computing – Term Paper Topics

Due Dates: (points off for each deadline missed)
Thurs., October 8  Topic selection
Thurs., October 22  Detailed Outline (daily grade)
Thurs., November 5  First Draft complete - email to Dr. H (daily grade)
Tues., November 17  Presentations Begin
Tues., November 24  Final Paper emailed to Dr. H (-10 points per day late) + hard copy to Dr. Halverson

Papers of quality grade A or B+ will satisfy the Term Paper Requirement for the MS degree in CMPS.

The goal of the term papers is to provide the class with an overview of the history of parallel computing, in particular, the hardware. The paper must be formatted as specified in Computer Science document for papers. Each student will write a term paper on the assigned topic with the following additional requirements.

- Title Page
- Abstract (on separate page)
- 5 to 7 pages (formatted as specified in department documents)
- Page numbers
- Introduction, Body of Paper, Conclusion
- References page with at least 5 reputable references
- Citations as specified in department documents
- Plagiarism free, Correct grammar & punctuation, well-developed outline & paragraphs

The paper should include the following information about the assigned computer, though it may vary slightly depending upon the topic chosen:

**Overview of the background of the computer**
- Who developed the computer? (Company and individuals)
- When & where developed?
- When did production stop? Or transitioned into new model?
- How many produced?
- Who used the finished computers and for what applications? (At least first few)
- Where did the funding come from? (Company itself, government, etc.)

**Overview of Computer Hardware**
- New features (particularly if they were the first)
- Processors (number & architecture), memory, speed, etc.
- Features “borrowed” from previous computers or research
- Influence this computer had on future computers

**Other issues**
- Initial Goals for building the computer? Were goals met?
- Problems encountered?
- May include other interesting or important information

Paper Presentations will begin Tuesday, November 17. ALL students are expected to be ready to load PPT slides and speak on that day. Failure to speak when called upon will result in a 10 point deduction on the presentation grade.
The following computers are available for the topic of your term paper. No repeats allowed. Request your first, second & third choice by email & I will confirm. You are allowed to request a different supercomputer or parallel computer. See me in person for this.

- nCube/25
- Connection Machine
- Sequent Symmetry
- Cray 1
- MasPar hypercube
- ILLIAC IV
- iPSC
- Beowulf Cluster
- IBM Stretch
- nVidia GPU card
- VAX 11/782
- LARC
- CDC6600
- Intel Multicore Processors
- Fujitsu Numerical Wind Tunnel