**CSCI 586 –Fall 2010**

**10/21/2010Term Paper**

**Incorporating Fault Tolerance into HPL**

HPL: a program that is used to test and rank the performance of supercomputers in the world

HPL download link: http://www.netlib.org/benchmark/hpl/

Download, install, and test the performance of Alamode Laboratory

**Incorporating Fault Tolerance into HPL**

MPICH-V: a Scalable Fault Tolerant MPI Implementation

Download and install MPIVH-V

Test HPL with MPICH-V in Alamode Laboratory

**Incorporating Fault Tolerance into HPL**

Open MPI: a widely used productive MPI Implementation with checkpoint/restart functonality

Download and install the **latest**version Open MPI library

Test HPL with Open MPI’s checkpoint/restart functionality in Alamode Laboratory

**Incorporating Fault Tolerance into HPL**

Modify HPL source code to perform an application level checkpoint/recovery

**Incorporating Fault Tolerance into HPL**

Modify HPL source code to recover HPL without any checkpoint

**Incorporating Fault Tolerance into HPL**

Turn in

A term paper of about 10 pages with ACM conference format

All the source code

The term paper are to be done individually. Plagiarism and other anti-intellectual behavior are not tolerated and are subject to severe penalties. Plagiarism will result in a grade of zero for ALL students involved.