Summer 2014 Projects:
1. Pragmatic experience on Concurrency, Parallel, and Distributed programming.
Parallel algorithms are the key ingredients to being able to efficiently solve
problems using the current multicore computer technology. Students will for
important parallel computing models that capture the essence of classes of existing
or projected future parallel computers. Algorithms will be studied for problems.

A pair of student will study algorithms for important parallel computing models;
analyze problems that they have worked already in intro and advanced
programming languages courses such as searching, sorting, graphs, matrices,
numerical problems, and computational geometry. Students will be working with
JAVA 8.

Requirement: Advanced data structure course.
Up to 4 students.

At the end of the summer experience, students will create a poster of models,
examples and their experiences on

1. The understanding of the fundamentals of parallel and distributed computing
   including parallel/distributed architectures and paradigms.
2. The understanding of parallel/distributed algorithms and key technologies.
3. The ability to develop and execute basic parallel and distributed application
   using basic programming models and tools.

2. Challenges of supporting technology K-6: Is a Raspberry PI a solution?
 Continue the project on Canterbury elementary school.
Students are investigating a sustained solution for the current computing systems at
elementary school. Out of the experience worked with elementary school, students
will design a portal website with suitable educational content. The quest is to design
an implement a plug and go Raspberry Pi. The solution will be documented into a
paper or poster to be ready to submit to SIGCCSE or SHPE conference.

Requirement: Advanced data structure course.
Up to 4 students

At the end of the summer experience, students will document their experience:
1. Understanding the challenges faced by elementary schools on supporting
   technology
2. Designing, implementing and testing a solution for a real world problem.