

# **COMP5123-P01**

## **Advanced Computer Architecture**

### **Fall 2016**

## **Team Project**

Instructor: Dr. Mary Heejin Kim

September 29, 2016

### **I. Overview**

The purpose of this project is to study the following relationships for SMP (Symmetric Multiprocessor) architectures using SMPCache. Students have to install SMPCACHE simulation tool (3.0). Usage of the tool is simple and sufficient details are given in the accompanying “Getting Started Guide” handout.

You will study about:

- Project 4: Influence of the Block size for Different Cache Sizes
- Project 8: Influence of the Cache Size on the Bus Traffic
- Project 9: Influence of the Cache Coherence Protocol on the Miss Rate
- Project 11: Influence of the Number of Processors on the Miss Rate

### **II. Output**

- Each team is required to document its results in the format of a report. (50%) (See instruction below for the details.) Results should be in the form of a graph or a table. RAW data or statistics will not be accepted.
- Presentation in class. (40%) (100 points - 50 by audience, 50 by instructor)
- Peer assessment. (10%)

### **III. Important Dates for Project**

- Set up a team (4-5 team members) and email to instructor by **Thursday, 10/6/16, 6 pm.**
- Upload a report (*soft copy*) to ecourses : **Wednesday, November 16, 11:55 pm**
- Print out a report and turn in **November 17, 2016** in the beginning of class.
  - pages: 8-10 (including references)
  - line space: single; font size: 12; font type: Times New Roman
- Presentation (Slides, 10-15 min talk, 5 min Q&A): **November 17, 2016 in class.** (copy the slide file to Instructor's computer before class starts.)

project	Members	Team name
4 Influence of the Block size for Different Cache Sizes	Abayomi Olawale Oluwaseun Oluwafemi Adokiye	
8 Influence of the Cache Size on the Bus Traffic	De'Ahna Adepeju Travon Abuu Jose	
9 Influence of the Cache Coherence Protocol on the Miss Rate	Chao Rong Riya Jabar Harsha	
11 Influence of the Number of Processors on the Miss Rate	Vikram Anitha Ayesha Garima Sanjay	

\*Best team (winner) will get 1 point extra.

\*Best team leader will get 1 point extra.