**Department of Computer Science and Engineering**

**National Institute of Technology Calicut**

**Kozhikode - 673 601, Kerala, India**

**Tel: 0495-2286801**

**Tentative Course Details – Winter Semester 2013-14**

**CS2093 HARDWARE LABORATORY**

**Lecture/Lab Hours:**

Monday 2.00pm – 5.00pm, Wednesday 2.00pm –5.00pm

Lab : Networks Systems Lab (NS Lab)

**Instructors:**

Name : Saidalavi Kalady, Jayaraj P B, Rathina Raja J & Bharat N

**Syllabus**

**Theory (14 Hours) + Practical (42 Hours)**

* **80X86 Assembly language programming:**

- Integer operations, recursive subroutines, two dimensional arrays (3(T) +12(P) Hours)

- String manipulation, floating point operations (2(T) + 6(P) Hours)

- DOS and BIOS interrupts. (2(T) + 6(P) Hours)

* Cache simulator – Performance evaluation of various cache organizations optimizations (2(T) +6(P) Hours)
* Familiarization of PC hardware and trouble shooting (2(T) +3(P) Hours)
* Embedded system experiments (RTLinux) (3(T) + 9(P) Hours)

**References:**

1. Peter Abel IBM PC Assembly Language and Programming (5/e), Prentice Hall, 2001.
2. Barry B Brey, Intel Microprocessors: Architecture and Programming, Prentice Hall, 2008.

**Grading - Exams and Daily Evaluations**:

Daily Experiment Evaluation - 30%

Test 1 and Test 2 - 40%

Final Test - 30%

**Grading Policy:**

* Grading will be absolute.
* Here is a tentative grade distribution: 90-100: S; 80-89: A; 70-79: B; 60-69: C; 50-59: D; 40-49: E; <40: F.
* Absence for exams/quizzes without prior written permission from the instructor will be equivalent to zero marks in the corresponding exam/quiz.
* All issues regarding valuation of exams must be resolved within one week after the marks are announced.

**Standard of Conduct**:

Each student is expected to adhere to high standards of ethical conduct, especially those related to cheating. Any academic dishonesty will result in zero marks in the corresponding exam or quiz and will be reported to the department council for record keeping and for permission to assign F grade in the course.