IIT Bhubaneswar

School of Electrical Sciences

Discipline: Computer Science and Engineering

Course: Computer Organization and Architecture Laboratory

Code: CS3P001 [0-0-3]

Schedule: Monday 1:30PM to 4:30PM

Venue: Computer Architecture and Embedded Systems Laboratory, SES Building

Course Instructor: Debi Prosad Dogra ([dpdogra@iitbbs.ac.in](mailto:dpdogra@iitbbs.ac.in))

TA: Santhosh K K ([sk47@iitbbs.ac.in](mailto:sk47@iitbbs.ac.in))

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**Week 2 (Date: 01-08-2016)**

**Title of the Experiment**: Familiarization with 8-bit/16-bit arithmetic and logical operations of 8085 microprocessor.

**Objectives:**

1. Writing large assembly language programs using GNUSim8085 simulator including management of program flow using jump (conditional and unconditional), subroutine.
2. Implementation of Data arrangement algorithms such as sorting / linear searching.
3. Implementation of string operations using 8085 assembly language programming.

**Experiments:** Students willwrite 4-5 large assembly language programs using the simulator.

**Submission**: Students are expected to submit a report on the experiments carried out in the laboratory before the next laboratory begins. The write-up of the report will be self-organized and no special instruction will be given. However, it is the student’s responsibility to describe the experiments in his / her own language as per understanding.

**References:**

1. Intel’s8085 instruction set reference manual
2. GNUSim8085 simulator