## IT LAB - M.TECH CS Lab - 2

## July 31, 2017

**Analysing Quick Sort**: The tricky part of Quick Sort implementation is fixing the end conditions properly.

- 1. First, write the algorithm of Quick Sort and trace in detail the recursion on an array of size 8. Everyone needs to submit this document.
- 2. Now go through the program quicksort-test.c and find the errors. Clearly explain in detail the errors and correct the errors.
- 3. Write your own program for Quick Sort and do the following analysis:
  - Run your program on inputs (created for Lab 0) that are a) sorted b) random and c) sorted in the descending order; and document the number of comparisons and swaps that are taken by Quick sort.

Submission Instructions: (i) A written document for tracing of QS and correction of the test program to be submitted in the lab itself. (ii) : Please submit Rollno.tar.gz containing the directory named by your rollno having all the program files and the result analysis file to sdbcs@dcis.uohyd.ernet.in by 4 August 2017.