## National Institute of Technology, Tiruchirappalli - 15 Department of Computer Science and Engineering Assignment-1

## CSLR52 – Networks Laboratory

Course/Department: B.Tech./CSE Session: July/2021 Submission Deadline: 20-10-2021 (11:59 PM) Marks: 15

1) Write a server program for TCP using Python to do the following:

- a. Server returns the binary value of the text sent by the client. Example: for a text string "comnetsii", the client should receive "01100011 01101111 01101101 01101110 01100101 01101001 01101001"
- b. The server should be running at the localhost interface
- c. You are free to choose any port
- 2) The Binary Decoding Server: Write another server running on eth1 interface to do the following:
  - a. Server returns the string value of a binary input. Example: the binary string "01100011 01101111 01101101 01101110 01100101 01110100 01110011 01101001 01101001" sent from the client should return "comnetsii"
- 3) Write two client programs one for each of the server.
  - a. What happens if the client aborts (e.g., when the input is CTRL/D)?
  - b. Can you run two clients against the same server? Why or why not? Hint: Multithreaded socket server in Python
  - c. What happens when you try to connect client1 to server2 by passing a wrong network address (e.g., connecting to localhost instead of eth1 IP)?

## **Submission Assignment**

- 1) Every Problem should be implemented in separated code files.
- 2) You should make a report which consist of discussion regarding each problem about your findings and observations after the experiments/coding.
- 3) All the materials should be zipped in a single folder and uploaded. Name of the folder should be your roll number and assignment number, for example "11100898" Assignment1.zip"
- 4) Submission link will be provided shortly.