

# National University of Computer and Emerging Sciences



## **Laboratory Manuals** *for* **Computer Networks - Lab**

(CL -3001)

Course Instructor	
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Section	
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*FAST-NU, Lahore, Pakistan*

## Lab Manual 09

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**Objective:** TCP Multi-threading using pthreads.

**In lab Statement:**

**(20)**

### **ONLINE VOTING SYSTEM**

You are to devise an online vote casting system using **TCP** multithreaded server-client program. The voters will log on from client systems and cast their votes. Note that

**One client can cast a vote ONCE AND ONLY ONCE.**

A list of registered voters is available in a text file in the following format:

**Name/CNIC number**

System should be secure and should only allow clients with authentic name and CNIC to cast the vote.

The Server shall

- First of all take the client's name and CNIC and match it with the content of the text file (Voters\_List.txt).
- If the details match, then it will welcome the voter and **display the names and poll symbols of the candidates on the terminal.**(Candidates\_List.txt)
- The voter will then cast the vote by **MENTIONING THE POLL SYMBOL (not the name) OF THE CANDIDATE. All these details are to be recorded in an output text file.**
- This system should work perfectly for **at least 5 different clients.**

**Note:**

1. You should be familiar with basic file streaming commands in C.
2. The server-client code **should be in C** and only C language. No other language is accepted
3. Student shall be awarded zero in the lab and -50 absolutes, if plagiarism of any kind is found in this lab.