

**SSN College of Engineering, Kalavakkam**  
**Department of Computer Science and Engineering**  
**V Semester - CSE 'C'**  
**CS8581 NETWORKS LABORATORY**

**Academic Year: 2019-2020**

**Batch: 2017-2021**

**Faculty: Ms. A. Beulah**

**Due Date: 20.8.19, 21.8.19, 22.8.19**

**Exercise 8: PERFORMANCE EVALUATION OF TCP AND UDP**

1. Write tcl script to do evaluate the performance of TCP and UDP sharing a bottleneck link
  1. Create six nodes and the links between the nodes as
    - a. 0 → 2 2Mb 10 ms duplex link
    - b. 1 → 2 2Mb 10 ms duplex link
    - c. 2 → 3 0.3Mb 100ms simplex link
    - d. 3 → 2 0.3Mb 100ms simplex link (link 2 → 3 is a bottleneck )
    - e. 3 → 4 0.5Mb 40ms duplex link
    - f. 3 → 5 0.5Mb 40ms duplex link
  2. Align the nodes properly.
  3. Set Queue Size of link (n2-n3) to 10 (or) 5.
  4. Setup a TCP connection over 0 and 4 and its flow id, window size, packet size
  5. Setup a UDP connection over 1 and 5 with flow id, type, packet size, rate, random fields
  6. Set different colors for TCP and UDP.
  7. Run the simulation for 5 seconds, and show the simulation in network animator and in trace file.

Analyze the performance of TCP and UDP from the simulation.