

EE3204 / EE3204E Computer Communication Networks I (Part 1)

Socket Programming Assignment (Sem1, 2015-16)

Assessment Details

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Instructions:

This lab assignment focuses on implementing a client server socket program with UDP transport protocol for transferring messages using a flow control protocol with and without errors. Problems 1-3 are for your practice. Problem 4 is the assignment problem. Choose appropriate values for parameters such as data unit size and error probability. You can simulate errors according to the frame error probability. You are free to implement the ARQ in your own way, but with stop-and-wait. For example, you may want to avoid TIMEOUTs and handle retransmissions in some other way. Repeat the experiment several times and plot the average values in a report with a brief description of results. The details of demo schedule (date/time) for individual students will be announced separately. For B.Tech. EE3204 students the groups and second lab session (demo session) have already been announced.

- Your lab assignment work will be assessed based on the following.
 - Does data transfer takes place?
 - Understanding of basic socket programming tool/functions
 - Implementation of the flow control protocol/ARQ
 - Selection of parameter values
 - Performance trend of the experimental results
 - Interpretation of the performance trend
- Suggest to do the following and be ready before you come for demo
 - Run your programs and tabulate/plot the performance results offline (before coming for demo).
 - As stated in “Instructions” above, prepare a short report.
 - Please note that this report need not be formal. The report is not graded. It helps you as a supporting document during demo.
- During the Demo session
 - Demonstrate the working of your program for a few parameter values
 - Answer the questions asked by the GA
 - Show the report of tables/figures showing the performance results and explain the trend with reasons for such behaviour

[ALL THE BEST]