## **ABSTRACT**

RBUDP (Reliable Blast UDP) is a transport layer protocol designed for bulk data transfer at a high-bandwidth. RBUDP addresses problems of bulk data transfer by eliminating the slow start phase of TCP and obviating the need for per packet acknowledgement (ACK). RBUDP has goals: to utilize the capacity of the network and to avoid the per packet interaction of TCP so that ACK are not sent per window of transmitted data, but aggregated and delivered at the end of a transmission phase.

In this Final Project the performance of RBUDP and TCP will be analyzed by simulating with Network Simulator. This research here is for knowing the influence of throughput, delay and packet loss concerned to the performance of data transfer phase RBUDP and TCP.

The results of this simulation show that bulk data transfer can be increased by using RBUDP as the alternative of TCP. RBUDP has better performance than TCP for bulk data transfer. RBUDP can provide bulk data transfer at precise by assuming sending rate so that packet loss must be near zero.

**Keywords**: rbudp, tcp, ack, delay, throughput, packet loss, sending rate, network simulator