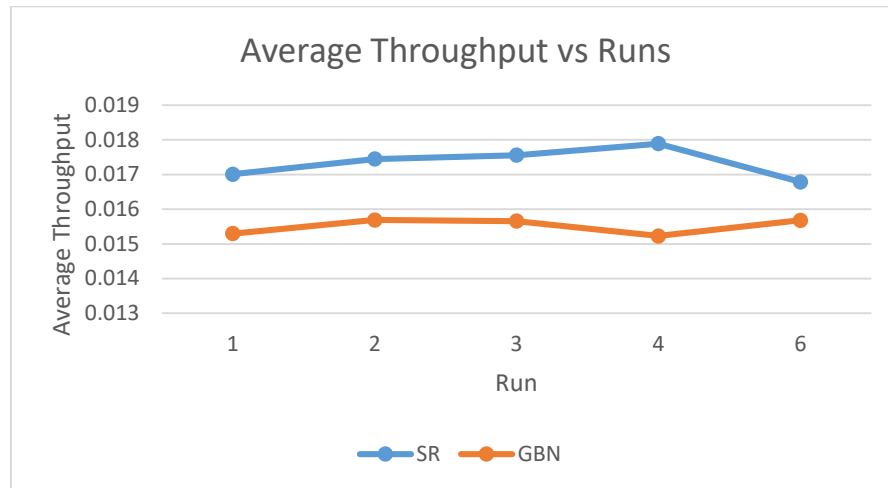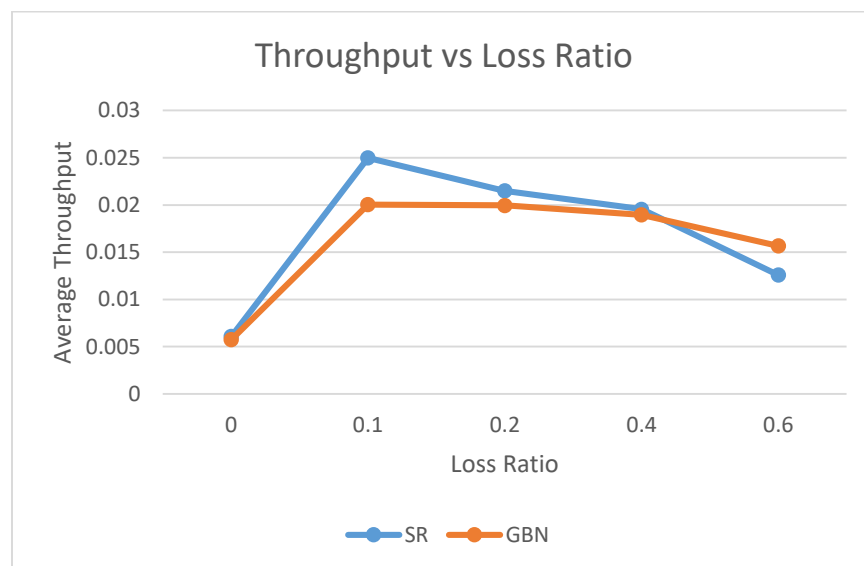# SR and GBN comparison and analysis document

The analysis for the Average Throughput vs for different runs with different seeds and varying loss ratio is displayed below.

Average Throughput vs Runs

The throughput for Selective repeat protocol is comparatively higher than Go-Back-N, for all the seeds numbers that range from 1234 to 9988.

Throughput vs Loss Ratio

In SR the buffer ACK only retransmits the packet if the packet is lost/corrupt while in GBN the all packets are retransmitted. Hence the number of retransmissions are lesser in SR than in GBN. The throughput in the above graph is taken in comparison to the loss ratio. With increasing loss, the difference between the throughputs of the two protocols reduces, although it is not a steep decrease.