# Abstract

Active Queue Management (AQM) is one of congestion avoidance mechanism that uses loop back system to controls average queue size dynamically and decide when and which packet to drop. Based on reference [1], Random Early Management (RED) is one of AQM method that mark packets randomly with a certain probability. Also based on reference, can be conclude that RED's performance is depends on its congestion level and parameter settings.
The Dynamic Random Early Detection (DRED) is one of RED's variant which changes RED's parameter dynamically. The main parameter that changes dynamically is wq (queue weight) which sets as a constant value. Theoretically, DRED has a better performance than RED, because DRED capable to stabilize the average queue size after dequeueing packets. So, DRED can avoid buffer overflow.
The final project's aim is to compare RED and DRED's performance, that contains comparing average queue size, packet loss, and throughput. This performance analysis is simulated by Network Simulator in the simple network simulation with single bottleneck router.

**Keywords**: AQM, RED, DRED