

An optimization routing protocol in **NS3**

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Task A

Manet routing protocol is itself wireless and does not support wired for AODV and DSR

NS3's built-in components for this.

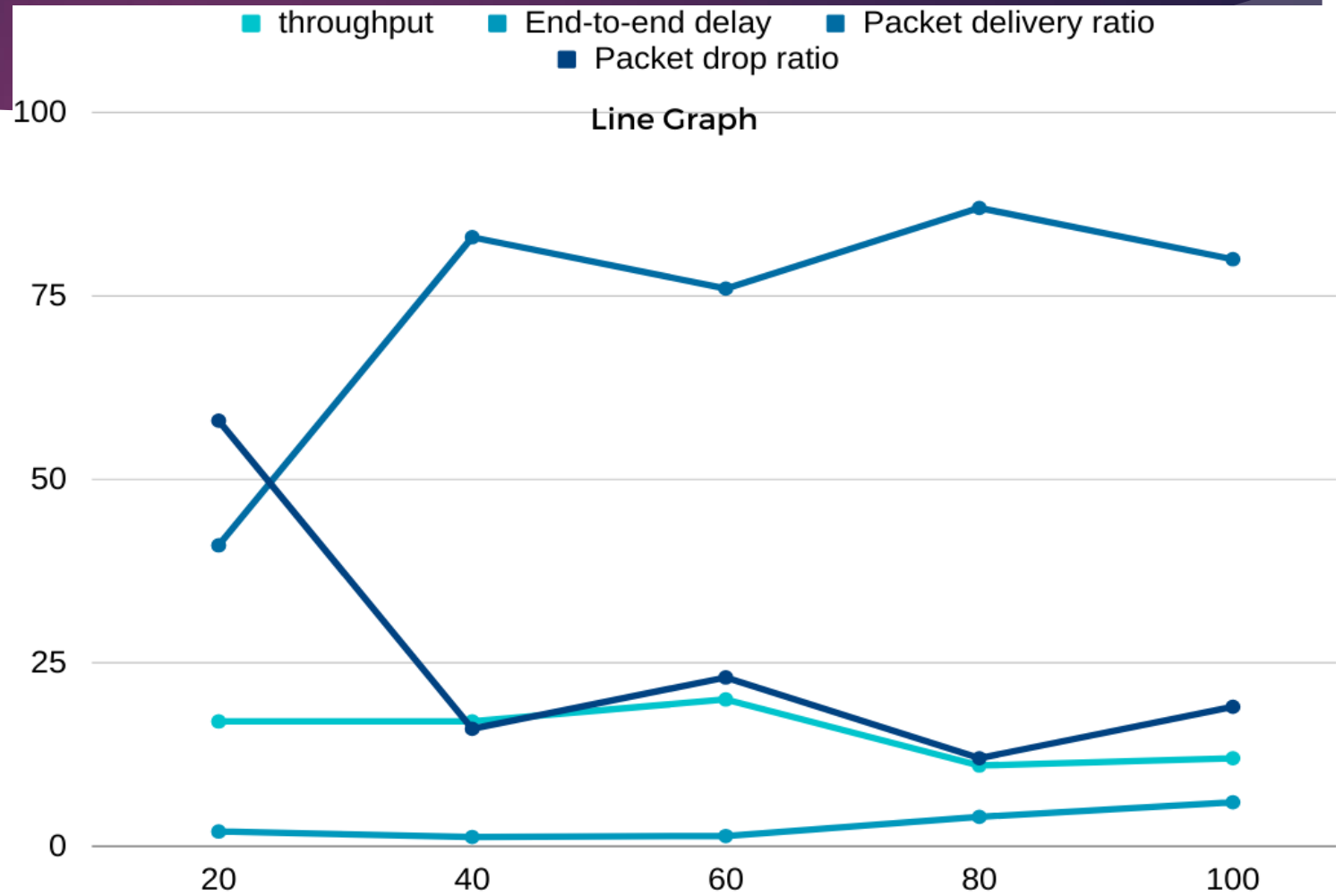
NS3's built-in components for this is manet-routing-compare.cc

For this first flow monitor is installed and the value of given measurement is calculated for different number of node at different time

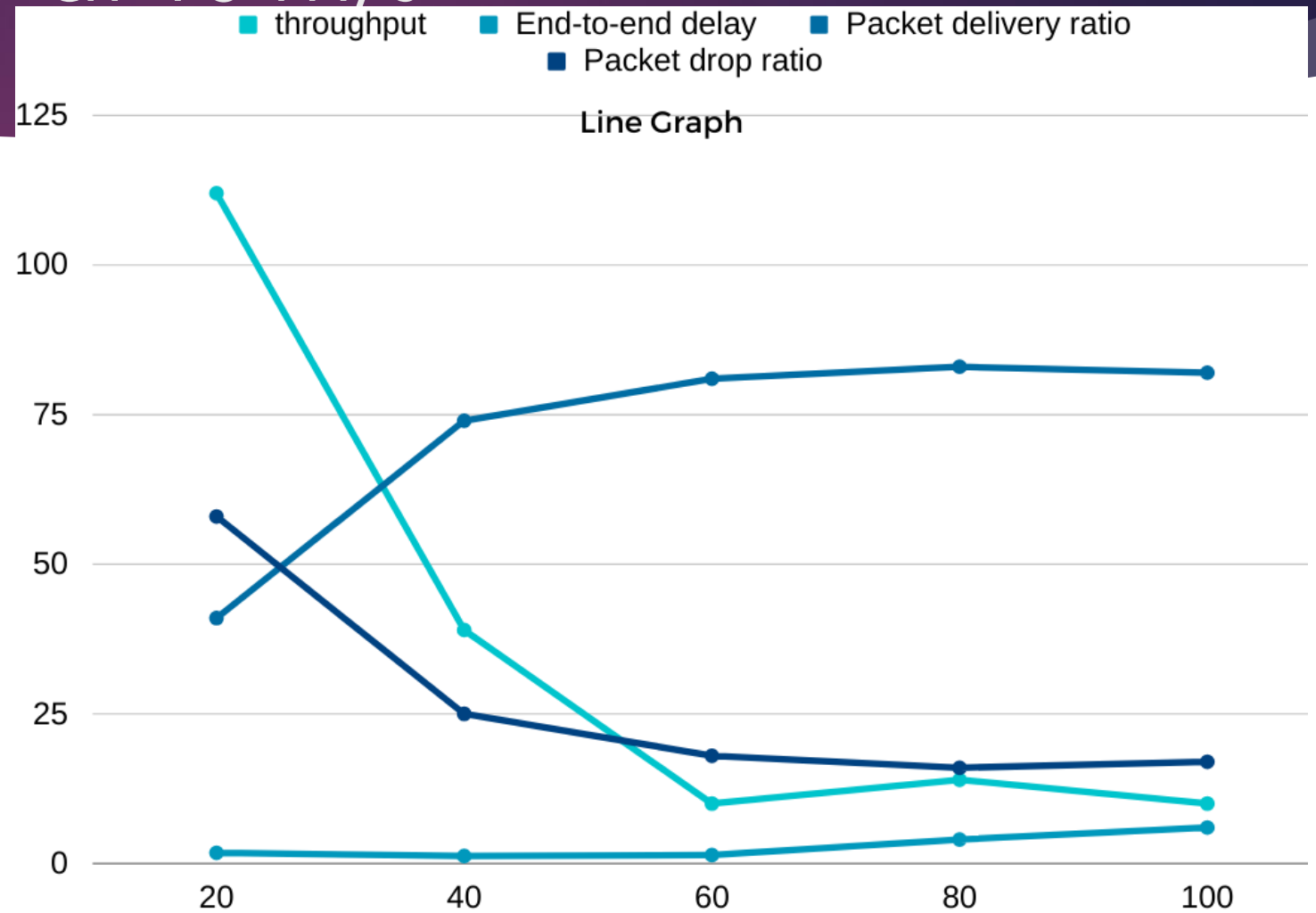
Measurement

throughput
end to end delay
packet delivery
packet drop ratio

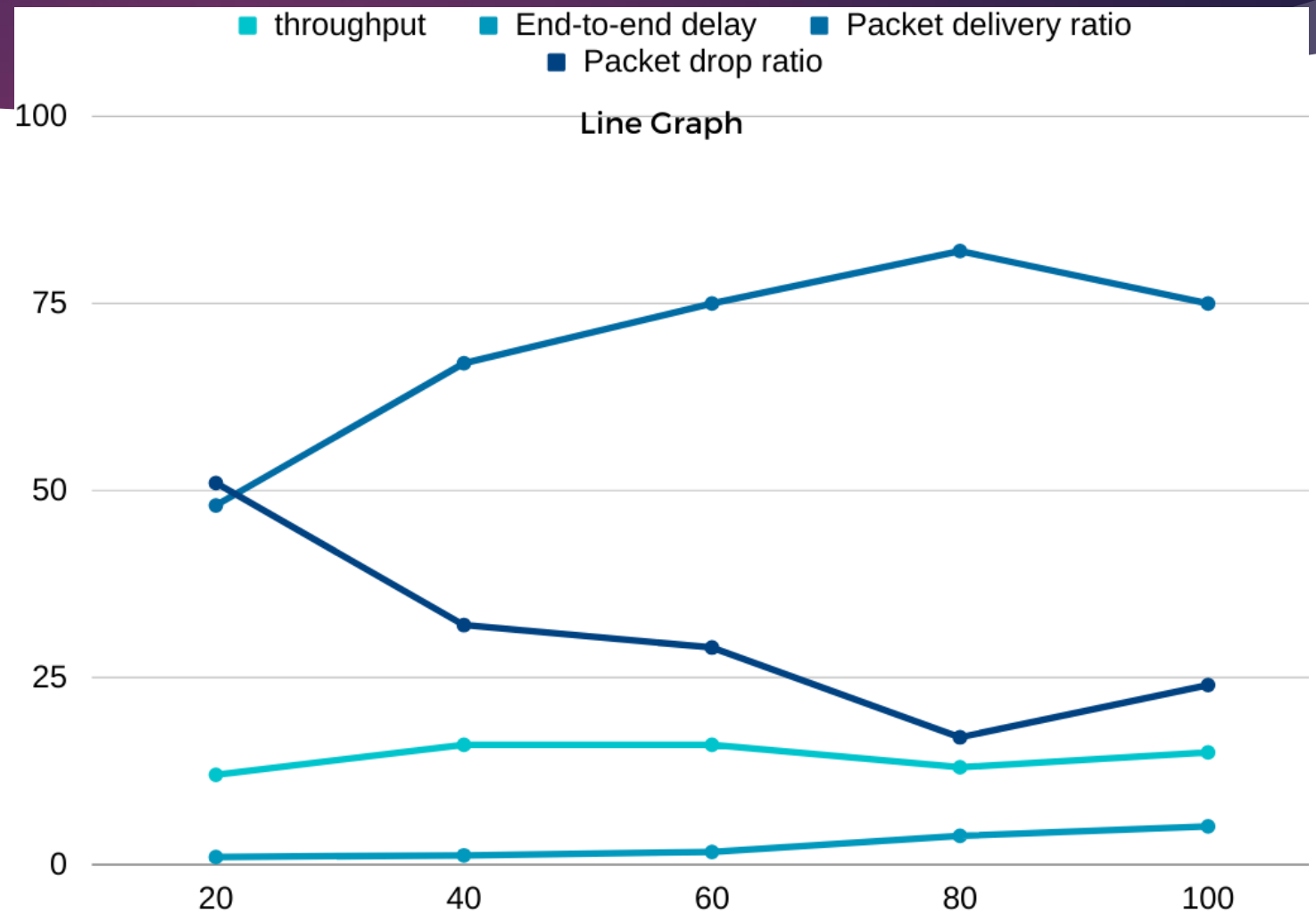
Speed of node at 5 m/s

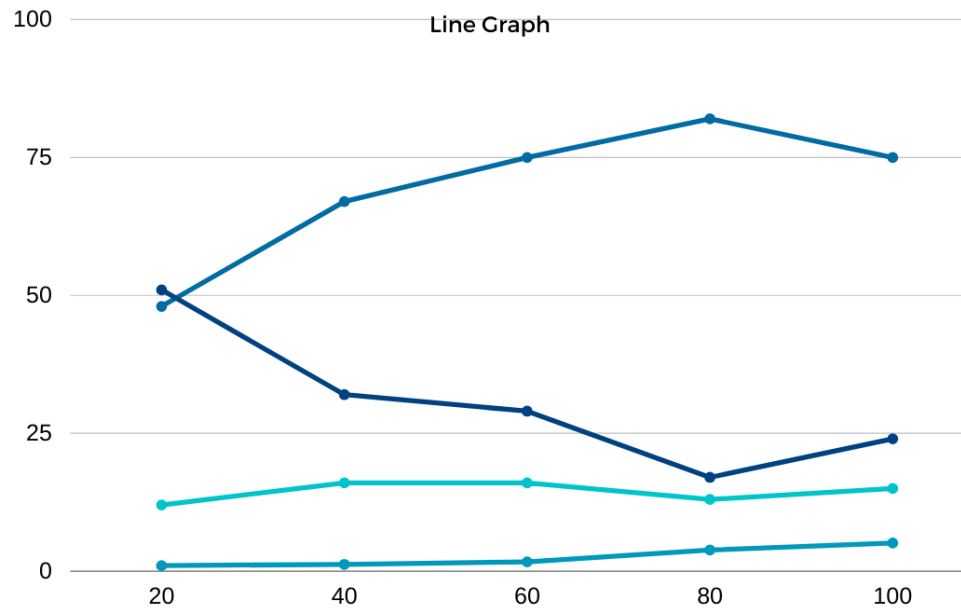
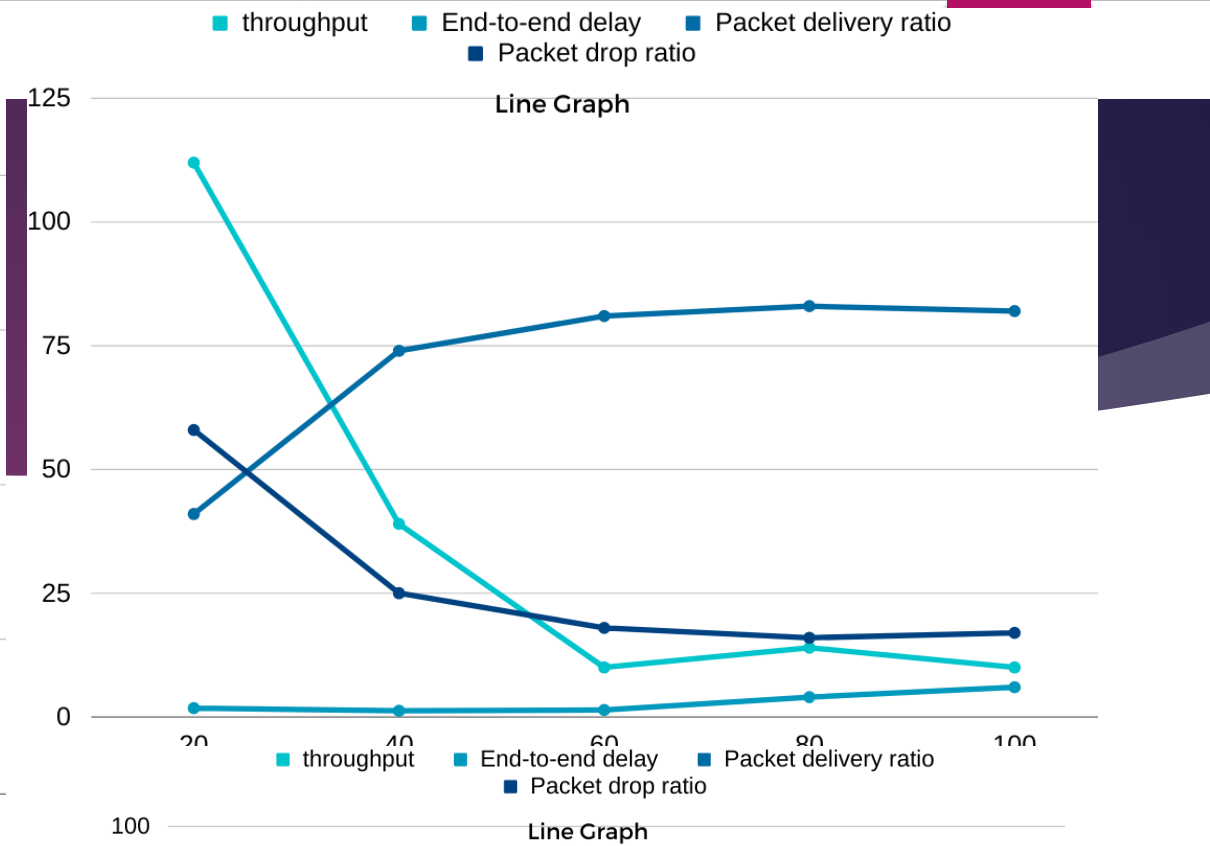
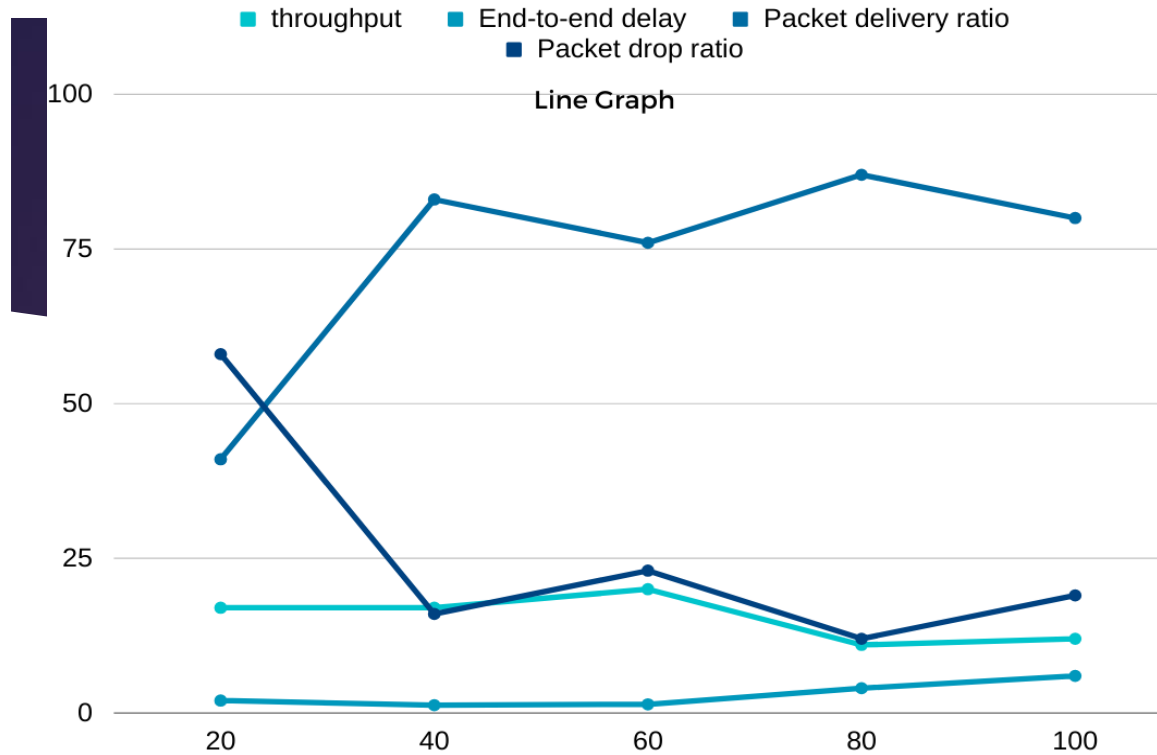


Speed of node at 10 m/s



Speed of node at 15 m/s





Task 2

Implementation of algorithm

energy-efficient

For that I have Implemented

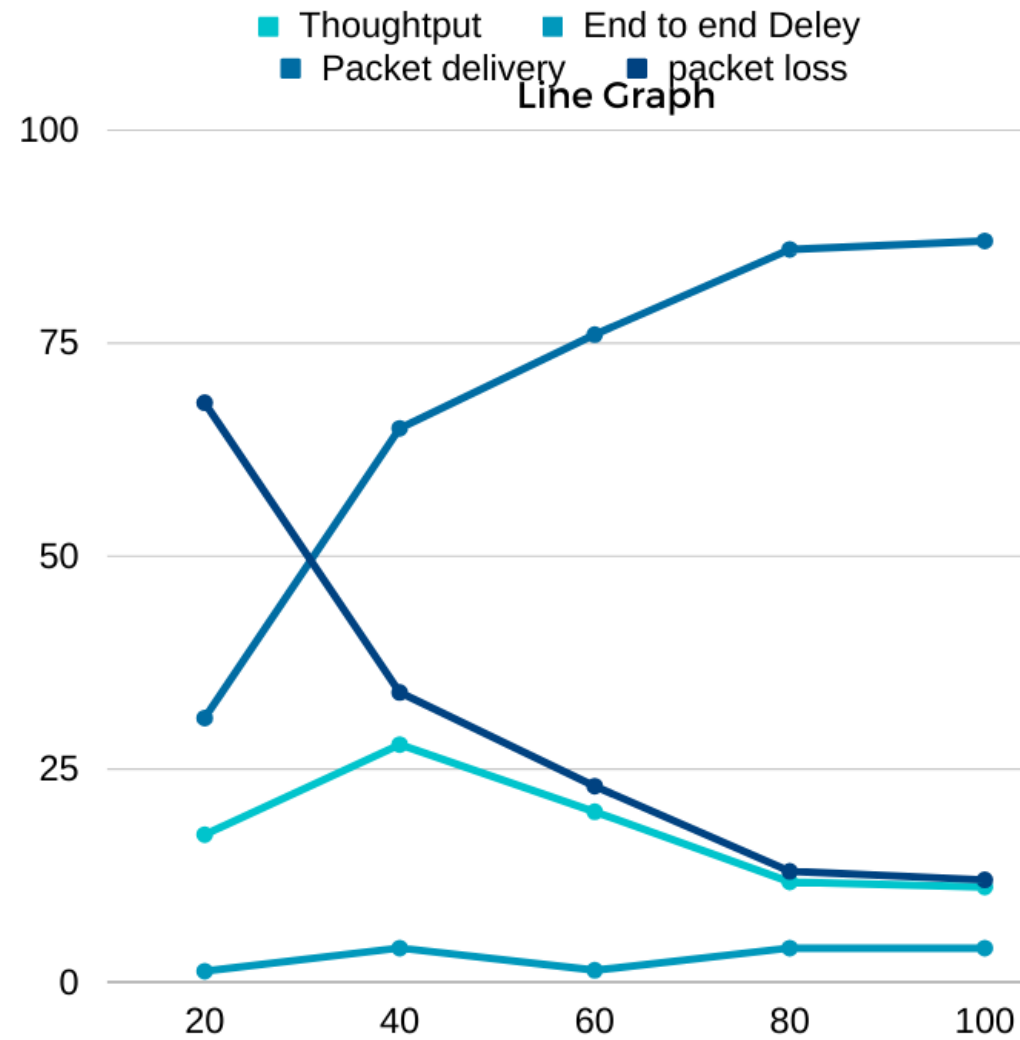
Trace function for remaining energy at node.

Trace function for total energy at node.

Energy HelpervModel class for configuration

connect trace sources

Task 2

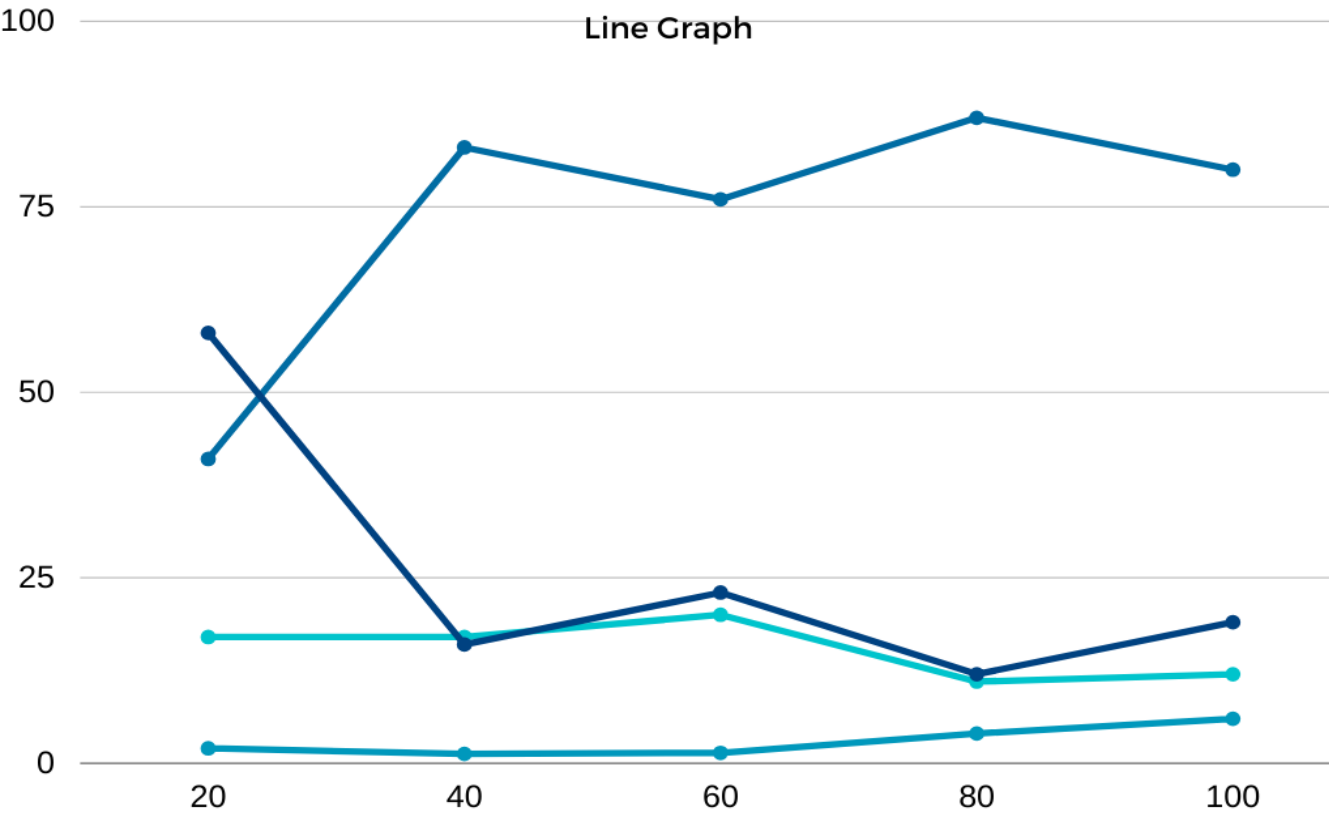


Comparision

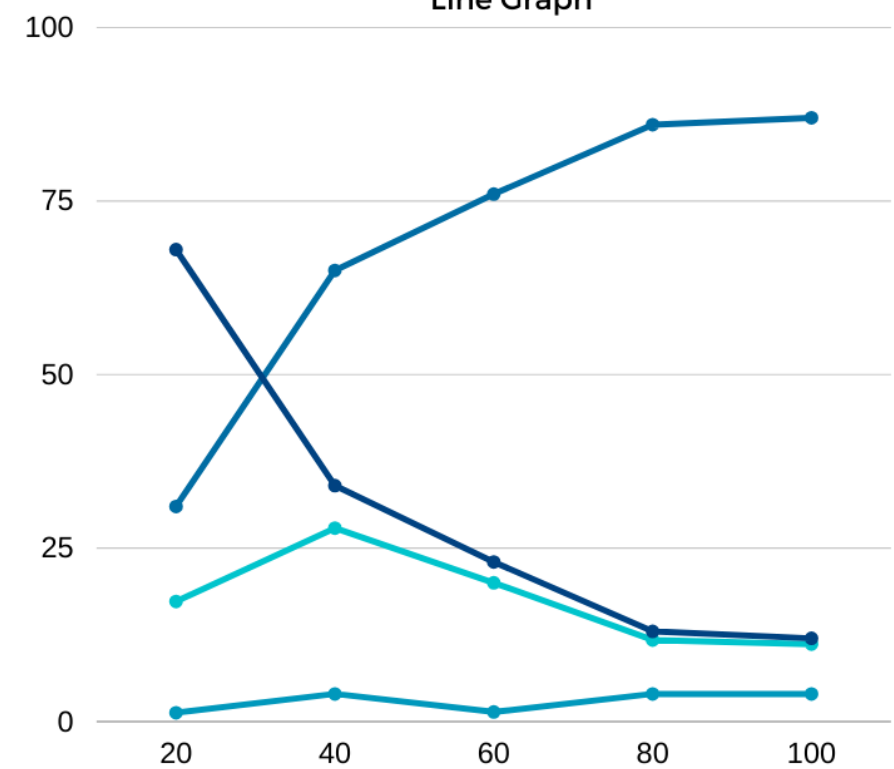
Before

After

throughput End-to-end delay Packet delivery ratio
Packet drop ratio



Thoughtput End to end Deley
Packet delivery packet loss



Conclusion

After implementing the algorithm we find

1. The packet delivery ration was constantly increasing
2. The packet drop rate was flucting before
3. Thoughtput increase before decreasing
4. End to end deley ratio decrease



Thank you