CONGESTION MANAGEMENT IN LONG TERM EVOLUTION USING PRIORITIZED SCHEDULING ALGORITHM

B. M. Kuboye
Department of Information Technology
Federal University of Technology
Akure, **NIGERIA**
bmkuboye@futa.edu.ng

D. Oluwafemi
Department of Computer Science, Federal University of Technology
Akure, **NIGERIA**

K. Ogidan
Department of Computer Science, Federal University of Technology
Akure, **NIGERIA**

ABSTRACT

The emergence of a Long Term Evolution (LTE) in a mobile networks environment has triggered high speed and capacity in voice and data services. The subscriber of this network continues to increase in number daily thereby leading to congestion on the scarce resources available for allocation. Several scheduling algorithms has been deployed to manage the scarce Radio Blocks (RBs) in LTE Networks, thus, some were studied. Thereafter, a new prioritized algorithm was designed and simulated using Simulink in MATLAB. The performance of the Proposed New Prioritized Scheduling Algorithm (PNPSA) is evaluated and compared with traditional scheduling algorithms Best CQI and Round Robin (RR) using the LTE metrics of fairness and throughput. The proposed algorithm showed promising statistics in comparison with the Best CQI and Round Robin algorithms in terms of throughput and resource block allocation fairness.

Keywords: Long Term Evolution (LTE) Networks, Scheduling Algorithms, Performance Measures, Radio Blocks (RBs), Congestion.