

Comparative Study of Scheduling Algorithms for LTE Networks

Authors : Samia Dardouri, Ridha Bouallegue

Abstract : Scheduling is the process of dynamically allocating physical resources to User Equipment (UE) based on scheduling algorithms implemented at the LTE base station. Various algorithms have been proposed by network researchers as the implementation of scheduling algorithm which represents an open issue in Long Term Evolution (LTE) standard. This paper makes an attempt to study and compare the performance of PF, MLWDF and EXP/PF scheduling algorithms. The evaluation is considered for a single cell with interference scenario for different flows such as Best effort, Video and VoIP in a pedestrian and vehicular environment using the LTE-Sim network simulator. The comparative study is conducted in terms of system throughput, fairness index, delay, packet loss ratio (PLR) and total cell spectral efficiency.

Keywords : LTE, multimedia flows, scheduling algorithms, mobile computing

Conference Title : ICCNMC 2014 : International Conference on Communications, Networking and Mobile Computing

Conference Location : Istanbul, Türkiye

Conference Dates : March 24-25, 2014