

Enhanced Bandwidth Based Handover Decision Making Algorithm For Small Cell Wireless Networks

ABSTRACT

In small cell wireless networks, fast and precise vertical handover decision making algorithms are needed to minimize the handover failures and unnecessary handovers, especially in high-speed scenario. In small cell wireless networks such as WLAN and 5G, shorter traveling time is anticipated for a fast-moving user traversing the cell coverage. This results in frequent handovers. It leads to poor user experience and wastage of network resources. To overcome this problem, this paper proposed a new handover decision making algorithm that integrates the traveling distance prediction technique with the bandwidth based handover algorithm. The simulation results show that the proposed algorithm has successfully reduced the number of unnecessary handovers and handover failure in small cell wireless networks.