

ABSTRACT

Network cables in a telecommunications now widely replaced its function in the world of telecommunications by wireless networks in the scope which is not too far, as it is considered inefficient in use of space, where the wireless network does not require a physical connection is needed for devices in interconnected. With the use of wireless networks is what can be used one of them as a medium of information is displayed visually by television campus, where the television can be connected wirelessly to the server which will display certain content as needed.

Implementation of the campus television wirelessly using wireless technology-based WDS (Wireless Distribution System) which will connect a router without using a network cable and then the TV will be connected wirelessly campus with Router using the Raspberry Pi Model B 3 are getting video content from the server.

In this final project is to design and implement TV campus Selaru building using wireless technology based on the Wireless Distribution System. After the implementation of non-LOS conditions it was found that a 5.9 ms delay for streaming video & 4.2 for live streaming and 8.9 ms jitter for video streaming and 7.5 ms for live streaming, known throughput of 162 kbps for Streaming video & 173 kbps For live streaming, while LOS states that a 1.7 ms delay for streaming video & 3.3 for live streaming and 2.5 ms jitter for streaming video and 6.19 ms for live streaming, known throughput at 585 kbps for streaming video & 230 kbps for live streaming. After conducting feasibility test of campus TV service using questionnaire, got the lowest value 3,43 for component of completeness test of information and average value of MOS equal to 3,95.

Keywords: WDS, Raspberry pi, Router.