ABSTRACT

At present, the task of lecturers in addition to teaching in the classroom, sometimes on duty outside the city to study, in collaboration with industry, etc. which can occur when the slow lorises outside the city at the same time with the teaching schedule. Then to enable lecturers provide distance learning (outside the city) in this final project designed and implemented one of the e-learning applications, namely video conferencing.

The system consists of two parts of the device, that is on the faculty who are mobile, and part permanent classrooms. At the faculty consists of a VPN server that is realized virtually on a laptop. While on the part of a class that consists of two classes, each consisting of a laptop equipped with a webcam and headset where the laptop is connected to the projector as a visual medium of video conferencing and video server are stored in class. In this final project implementation focused on classroom part mainly on video server.

Testing has performed to verify two issues, i.e functionality test and performance test. From functuonality test, system can function properly as planned. While the results of the performance test, show 0.04913356475 ms *the avarege of delay, :* 169.61666675 Kbps *of throughput, and* $0.091275\%.$ of packet loss.

Keywords: **video conference, teleconference, delay, throughput, packet loss, VPN, E-Learning.**