Nowadays, rapidly Android application development leads application development to solve problems in various fields. Currently, there are several categories of Android apps that are developed as games, social media applications, even applications that replace telephone communication as the sender application, audio or video communication. Audio communication application is one of the popular. Often the audio transmission quality decreases regarding the decrease in the quality of the network, thereby causing communications to be less comfortable.

Android smartphone today usually is equipped with several connectivity such as Bluetooth and Wi-Fi. Android smartphone from version 4.0, now also has to be able to support direct connections between peers, and the low-level API for accessing audio sound from the device driver.

This final project proposes solutions to the problems, by making use of Android technology to create audio applications that can be used to communicate using existing infrastructure or by using a direct connection between the peers with improved audio quality based on the quality of the channel network, the algorithm implements Modified Joint Coding Rate Control (JCRC) that maximize throughput and minimize delay. Tests were carried...
out using this method. The results show that this method is able to maintain the quality of the sound and sustain the delay.

**Keywords:** Android, audio communication, JCRC, P2P.