ABSTRACT

Now, there are much more TV station that give a good quality of service broadcasting. Broadcasting quality can be seen from good acceptance of video and audio signals by the audience, and there are much more audience who can receive broadcast programs from that TV station. For building relay stations in some region can extend coverage area. With a good performance of relay system and more wide distance of serving area, make disturbing and something fail in broadcasting is being slightly.

In this Final Project had give a performance analysis of relay system in RCTI Jakarta TV station for receiving at Bandung coverage. For Palapa C2 satellite transmission is gave study about coding gain influences, adding of power RCTI Jakarta earth station to reach performance system that is desired, and link analysis from number of carrier in a transponder. For analysing radio terestrial system of RCTI Bandung station, is gave study about a relationship of field strength and S/N system performance that is influenced by a prediction distance coverage from radiation pattern of transmit antena and ITU-R P.370-7 E (heff, d) curve.

The analysis result declare that relay system through Palapa C2 satellite with BER 10^{-5} is power limited radio communication that is obtained with adding coding gain is 4,3 dB and stabum RCTI Jakarta EIRP is 58,11 dBW for condition without coding gain. Whereas with power transmite of RCTI Bandung sation is 8,5 KW , minimum field strenght is 70 dBμV/ and standard S/N is 45 dB, create worse acceptance of video audio quality in west, north west, north, north east and east direction, so can be concluded that RCTI Bandung was not serving for the audience in that direction. But for another receive direction, RCTI had give broadcast video audio quality which are appropiate to the standard.