

## ABSTRACT

Telecommunication technology's recent development has come to the moment where video communication emerges a new trend of communication means alternate to voice communication. To fulfill the demand, the use of correct coding for bringing high quality videos and user flexibilities is needed.

For the purpose, ways to decrease bit-rate for every user are needed, one of them is by using coding techniques, eventhough it is correlated with previous video quality factor. This final project will calculate the effects of coding techniques towards video parameters in a wireless communication.

The purpose of this final project is to give performance analysis of H.264 and MPEG-4 coding based on the defined profiles. Parameters that will be calculated are PSNR, SSIM and bit-rate. The test will take place in a *wireless* communication . The method used in this project include conducting literary studies related with H.264 and MPEG-4 video coding, also conducting simulation for coding and video delivery in a *wireless* network Conducting analysis and taking conclusions from the analysis, so in the end it will resulted in the video with the best performance.

Video transmitted in a wireless network will result in the best quality by using the *main profile H.264 profile*, this was compared with *Baseline profile H.264*, *Extended profile H.264* and *Simple profile MPEG-4*, *Advanced Simple profile MPEG-4*. The conclusion has been calculated with PSNR, SSIM, bit-rate and visual observation using MOS.