

## ABSTRACT

Video is a multimedia service that often to used in future communication. Video service has high bit-rate, which need a coding process that can minimalist the demand of bit-rate so can be transmitted in communication canal that have limited bandwidth.

One of the newest coding techniques is MPEG-4. Visual MPEG-4 consist of 19 profiles that can be divide to three part, which are Natural Video Profile dan Synthetic Coding Profile or Hybrid Coding Profile. Every profile in MPEG-4 have different function depends on the tools.

The purpose of this final project is to know how much MPEG-4 coding technique need in CDMA2000 1xEV-DO communication system using Simple Profile and Advanced Real Time Simple Profile. The two profiles will be compared by the performance for video performance parameters. CDMA2000 1xEV-DO network combine with canal AWGN and Rayleigh as propagation canal will be simulated using Matlab 7.4 (R2007a). Parameter that will be count are PSNR, and MOS, to ensure the performance of video and BER so the CDMA2000 1xEV-DO network reach the target performance.

The result of simulations show that *advance real time simple profile* get the lowest point of PSNR at 15.60 dB when used for compressed Foreman.qcif video and highest point at 36.22 dB for Akiyo.cif video. Simple profile gets the lowest point result of PSNR is 26.26 dB and the highest point 32.36 dB for Akiyo.cif video. Lowest MOS ARTSP is 1.97 (bad) and highest 3.8 (excellent).