

## ABSTRACT

ISI (interference intersymbol) is a phenomenon problem which always there's in communications with data transmission which symbol bases. For example at demodulation modulation of QPSK. This ISI emerge effect of bandwidth limitation conducted by constrictor filter. So that result enlargement of conductive pulsa the happening interferensi between symbol nearby (ISI). Distortions that happened can result value of error at ever greater receiver side. So that need to minimize by using equalizer. Because condition of channel passed by to fluctuate to time (time varying). Hence used equalizer have to adaptif with change of channel condition. Where this equalizer work by arranging value of weighing factor so that reached by optimum value able to minimize assess error.

In this Final Duty of simulation will and analysed performance of adaptif equalisation with algorithm LMS & RLS at QPSK demodulator in overcoming ISI and noise. So that adaptif equalizer can work better, hence parameters of equalizer require to be set beforehand. From result of simulation obtained conclusion for RLS that order giving optimal result is order 16 with amount of adaptation beet 10. While for the LMS, optimum order is order 4 with amount of adaptation beet 4. At ideal condition of convergent system can at MSE 6,5%. With existence of change channel which faster, system become tardy to progressively go to convergent. While AWGN which smaller ( bigger SNR) hence value ISI even also become smaller. At LMS with  $\mu=0.00003$ , change of SNR 5dB becoming 20dB very signifikan influence degradation of ISI till 20,77%.