

ABSTRACT

There is so many transmissions which has been used to solve the problems and to fullfil the radio canal propagation. One of them is using D-MIMO (*Distributed Multi-Input Multi-Output*) system. These system exploits the properties from the canal radio propagation in an environment, full with multipaths with distributed transmitter. D-MIMO system using an array antenna in sender and receiver. These multipaths cause several troubles in transmission which is called by ISI (*intersymbol interference*).

In these Final task, there is some measurements and exploration *excess delay* in canal radio propagation at Microwave labororium with LOS condition using D-MIMO system.

From the exploration, it results the maximum *symbol-rate* point approximately 9,0745 Msps. On the other hand, if the average of delay maximum, in D-MIMO system produces maximum excess delay with low degree than in SISO system. D-MIMO system produces 5-40 ns and SISO system produces 5-140 ns to each transmitter. From this condition, every receiver could be touched by the sender that produces low delay maximum to that transmitter.

Key words: D-MIMO, excess delay, Measurement