

**ANALYSIS OF PROXIMITY COUPLED RECTANGULAR
PATCH ANTENNA AT WIMAX FREQUENCIES**

Thesis is presented in partial fulfillment for the award of the
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U N I V E R S I T I T E K N O L O G I M A R A

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ABSTRACT

In this study, the simulation and analysis of proximity coupled rectangular patch antenna is evaluated. Three different frequencies namely 3.5GHz, 2.5GHz and 2.3GHz have been selected since these frequencies are primarily used in WIMAX application. The performance of the antenna was evaluated by using CST software and the simulation results were described in terms of return loss, VSWR, bandwidth and farfield characteristics. From the results obtained, the computed bandwidths from the three different frequencies are 4.9%, 3.96% and 3.62% respectively. The best antenna design is at 3.5GHz operating frequency which gives better performance in terms of bandwidth, antenna gain and efficiency. The specialties of proximity coupled microstrip antenna are easy to design and contribute larger bandwidth compared to others.

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