

**PROPAGATION STUDY OF MICROWAVE SIGNALS BASED ON
RAIN ATTENUATION MODEL AT 18 GHz FOR LINK BUKIT
LANJAN – TV3 SRI PENTAS**

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ABSTRACT

The usage of microwave signal above 10 GHz seems to be the best solution to the currently congested frequency band problems faced by most service providers. However the applications of this frequency region face another weaknesses / constraint i.e rain attenuation. This paper is to study and to present results on propagation study of microwave signals based on attenuation which is model at 18 GHz and using the microwave link between Bukit Lanjan and TV3 Sri Pentas stations. The study conducted by using the ITU-R standards based on formula $\gamma = kR^{\alpha}$ and the results is presented by MATLAB application and also from TM Simulation Tools. The outcome from this study is hope could be used as the threshold in order to decide on future application of microwave frequencies above 10 GHz.

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