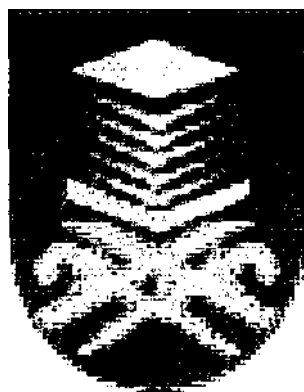


MICROWAVE NON-DESTRUCTIVE TESTING
OF ARMoured GLASS

This is presented in partial fulfillment for the award of Bachelor of
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ABSTRACT

Conventional testing of armoured glass is destructive in nature. This thesis highlights a microwave non-destructive testing (MNNDT) of armoured glass using an open-ended waveguide with matching termination. The measurement set-up consists of a vector network analyzer (VNA), coaxial cable, X281C waveguide transition and waveguide flange with matched termination. The measurement was made at frequency range of 8.0 - 12.0 GHz by measuring the scattering parameters of the armoured glass under the influence of microwave. Values of the dielectric constant were then calculated based on these measured values. It was found that the values dielectric constant values decrease with frequency and increase with the increase in impact velocity.

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