

**MICROWAVE NONDESTRUCTIVE TESTING OF COMPOSITE  
MATERIALS  
LOW FREQUENCY RANGE (50 - 2000 MHz)**

**Thesis presented in partial fulfilment for the award of the  
Advanced Diploma in Electrical Engineering of  
INSTITUT TEKNOLOGI MARA**



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DECEMBER 1995**

## Abstract

A study has been made on microwave nondestructive testing (NDT) that was used to test nonconducting and semiconductors materials especially composite materials. These materials such as plastics, wood and rubber were measured by MODEL 6409 RF NETWORK ANALYZER that operates in the low frequency range of 10 - 2000 MHz. Coaxial slotted line has been used as sample holder or transmission line. Transmission and reflection test methods have been used to measure the sample characteristics. The purpose of this work is to find the transmission loss, return loss and power absorption coefficient (PAC).

## **ACKNOWLEDGMENT**

**In the name of Allah s.w.t, the Most Gracious, Ever Merciful, who has given me the strength and ability to complete this project and report.**

**I would like to express my deepest gratitude to my project advisor Dr. Deepak Kumar Ghodgaonkar for his guidance, ideas and valuable advice which made possible this final year project.**

**My sincere appreciation to Mr. Shukor bin Abdul Jalil (Technician of CNC laboratory, CADEM), Mr. Ahmad Azelan bin Mat Isa (Course Tutor of Diploma in Mechanical) and School of Applied Science for their kindness and help in preparation of the samples.**

**My special thanks are to all the Advanced Diploma lecturers and staff who have sporting spirit and taught me to this level.**

**Finally, thanks to this green campus for teaching me the meaning of life.**

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