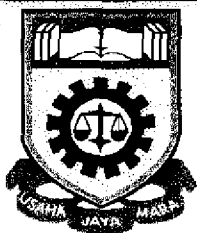


# **IMPLEMENTATION OF WIRELESS LAN USING IEEE 802.11 PROTOCOL**

**Presented in partial fulfilment for the award of  
*Bachelor of Engineering (Hons.) (Electrical)***

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## **ABSTRACT**

The purpose of this project is to investigate the performance of the IEEE 802.11 protocol by using the NETWORK II.5 software design tool. Through simulation, we can observe the performance of the Wireless LAN with CSMA/CA access technique and evaluate as to whether this protocol can implement in the Wireless Local Area Network effectively.

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**“I LOVE YOU ALL AND FOR MY MOTHER,  
YOU’RE MY INSPIRATION”**

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 The LAN world and The Opportunities for Wireless LAN**

Local area networks (LANs) provide services for interconnecting computing resources at the local levels of an organisation. LANs can provide services to a small branch office, a department, the floor of a building, a work group, a project team, or any group of users that are within a limited geography. LANs provide connectivity support and services for sharing of resources, passing of transactions, accessing of common databases, messaging between various parties, maintaining the work flow of the organisation and interconnecting between the layers of an organisation. LANs operate through hardware that makes the physical connections and software that moves the data and transactions between the unit. [1]

Wired (and cabled) LANs provide a logical and efficient choice for most networks. Where the users operate from a fixed desk in a standard office environment, the wired (or cabled) LAN is a natural choice. However, if the user is highly mobile and not used to a fixed location of operation, then the