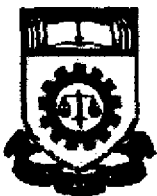


# **WIRELESS LOCAL AREA NETWORK (WLAN)**

**This is presented in partial fulfillment for the award of the  
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## **ABSTRACT**

**This paper describes the networking requirements in typical applications for wireless network. In particular the wireless Medium Access Control (MAC) protocol is investigated. Beside Distributed-Queueing Request Update Multiple Access (DQRUMA) protocol other wireless MAC protocol are also considered. The main feature of MAC protocol is to support multiple users in wireless environment.**

**The first chapter provides an introduction to the wireless network, followed by chapter two, we more focus about wireless Medium Access Control (MAC) protocol and in chapter three is more to DQRUMA protocol simulation model.**

**However, in this paper the main objective of the study is to evaluate the performance of DQRUMA protocol. The protocol is simulated using the commercial communication software design tool.**

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# CHAPTER 1

## WIRELESS NETWORKING

### 1.1 Introduction to wireless networking

The industry is growing and changing at an astonishing rate. The future of wireless system shows no hindrances. The usage and popularity continues to grow each and everyday. Worldwide use is becoming a reality as frequency standards, alternate bands and legislation is being looked at.

Today everyone is buzzing about the future of the wireless world and our abilities to communicate in general. Currently, wireless communications evolve around both the old approaches and newer technique [1]. Wireless communications includes both the traditional concepts for the digital transmission of electronic data processing traffic over local and wide area network, and the delivery of voice, video, images and other communications traffic [2].

Wireless network have been examined. Setting up a wireless network is less time consuming and at the present no health risk. The demand for ubiquitous personal communications is driving the development of new networking techniques that accommodate mobile user for voice and data services that move throughout buildings, cities or countries. To provide wireless communications within a particular geographic region (a city, for example), an integrated network of base stations must be deployed to provide sufficient radio coverage to all mobile users. The base stations, in turn, must be connected to a central hub called the Mobile Switching Centre (MSC). The MSC provides connectivity between the Public Switched Telephone Network (PSTN) and the numerous base stations and ultimately between all of the wireless subscribers in a system. The PSTN forms the global telecommunications grid, which connects conventional (landline)