

**Universiti Teknologi MARA**

**Wireless Laptop for Classroom Learning:  
A New Environment in Student Computing**

**Aliza Abu Bakar**

**BSc in Computer Science, Australia**

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## **LIST OF ABBREVIATIONS**

<b>LAN</b>	<b>Local Area Network</b>
<b>WLAN</b>	<b>Wireless Local Area Network</b>
<b>WEP</b>	<b>Wireless Equivalent Privacy</b>
<b>IEEE</b>	<b>Institute of Electrical and Electronics Engineers</b>
<b>IrDA</b>	<b>Infrared</b>
<b>IP</b>	<b>Internet Protocol</b>
<b>TCP</b>	<b>Transfer Connection Protocol</b>
<b>PAN</b>	<b>Personal Area Network</b>
<b>NIC</b>	<b>Network Interface Card</b>
<b>SSID</b>	<b>Service Set Identifier</b>
<b>RF</b>	<b>Radio Frequency</b>

## **ABSTRACT**

Educational technologists will want to consider how the use of wireless technology can enhance education and, in particular, what staff development is required to help make effective use of the new opportunities that wireless technology has to offer. More specifically representing wireless technology is wireless LAN that is a method of linking computers together without using cables. Until recently computers could only be effectively networked using wires. However, this can now be done using radio signals or infrared light.

This journal report discusses what a wireless LAN is and the issues that are involved in determining whether a wireless LAN is appropriate for any institution. It describes how to go about implementing a wireless LAN and looks at the educational opportunities which the uses of wireless LANs open up for colleges and universities.

The educational benefits of wireless LANs are most likely to accrue in courses that require all students to have a laptop. This so-called 'ubiquitous computing' with wireless connectivity opens up new educational possibilities which are beginning to be explored.

Evidence suggests that this technology enhances collaborative work and is bringing new teaching methods into the classroom. In almost all situations wireless LANs will be used in conjunction with wired LANs to maximize the benefits for the college or university/school. Wireless LAN use will continue to grow and become more important over the next five years, by which time it will be as unthinkable for a college or university/school not to have a wireless LAN as it is for a college or university/school not to have a LAN now. They will continue to supplement wired LANs, which will always have an important role to play, both providing the backbone within campuses.