

UNIVERSITI TEKNOLOGI MARA

**WIFI FREQUENCY DISTRIBUTION IN
UITM PERLIS BRANCH ARAU USING
GEOGRAPHICAL INFORMATION
SYSTEM APPLICATION**

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Thesis submitted in fulfillment
of the requirements for the degree of
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(Hons)**

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Wi-Fi is a wireless local area network which known by its official standard name, {IEEE} 802.11. Wi-Fi itself brings meaning on wireless fidelity which to always ensure that the network connections and Internet speed are in good condition through its radio waves. Nowadays, Wi-Fi networks give importance and play role which today, world's reliance on the Internet is very high. The Internet's high demand as it is used for communication, work, schooling, business, research and much more. However, unpredictable Internet connectivity due to Wi-Fi speed poses a problem for these groups of searching and surfing. This problem is expected due to the location of the Wi-Fi router in an area. Through the current trend, Wi-Fi is wireless local area network software that makes it possible devices for example, PCs, mobile communication tools, and other equipment connecting to the Internet. Thus, Wi-Fi frequency distribution makes the researchers able to navigate the data easily. Geographical Information System (GIS) can help to identify these issues for high-speed Wi-Fi and low-speed Wi-Fi sites by looking at the Wi-Fi distribution data in the area which represent areas where there are many Wi-Fi networks and stand out on a map together with the distribution of area with low and high speed of Wi-Fi. The determination of the suitable location for Wi-Fi frequency distribution could show the area with potential high distribution of Wi-Fi Network. Therefore, research will be carried out around the UiTM campus, as it is closer to Internet users. This study used the procedure of speed test that was carried out for checking around the UiTM to collect all available Wi-Fi networks that are in range by referring the information of router location while the coordinates are defined.

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