ABSTRAC

End Task In this work, has been designed and realized a motorized antenna as the detector can signal WiFi (Wireless Fidelity). The design consists of two parts, the antenna can work regulated by ATMega 8535 AVR microcontroller and powered by a DC motor, serves to overcome the weakness of the signal, so the sensitivity will be more sensitive receiver and signal-detection application on a PC that uses Microsoft Visual Basic software, works to detect the signal quality of wireless (wifi) at every angle of rotation and drawing (plotter) in graphical form can signal sensitivity antenna on each corner of the rotation. This detection system will create a wireless network access user to get a better signal.

From the results of detection, by using the antenna can have obtained a better signal than without using the cans. The results obtained higher signal quality 2x better than a can without using an antenna. Signal quality is better obtained from a rotating antenna cans and 360 ° rotation with kesudut return WiFi signal better.

Position of USB WiFi direct set up appropriate with tin can antenna, because this facing in a certain direction with detected Access Point. For beside and horizontal direction not appropriate to Access Point. In this case, happen rotate angle from angle 142.5°,but actually direct with beside position detected at angle 37.5°, so this case happen rotation with angle 105° and for horizontal position was detected at angle 262.5°, So this case happen rotation with angle 120°

Keyword : WLAN 2.4 GHz , Wi -fi, AVR ATMega 8535, DC Motor 24 Volt