الايه

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال تعالى :

أَلَمْ نَشْرَحْ لَكَ صَدْرَكَ ﴿ ١ ﴾ وَوَضَعْنَا عَنكَ وِزْرَكَ ﴿ ٢ ﴾ الَّذِي أَنقَضَ ظَهْرَكَ
﴿ ٣ ﴾ وَرَفَعْنَا لَكَ ذِكْرَكَ ﴿ ٤ ﴾ فَإِنَّ مَعَ الْعُسْرِ يُسْرًا ﴿ ٥ ﴾ إِنَّ مَعَ الْعُسْرِ يُسْرًا
﴿ ٦ ﴾ فَإِذَا فَرَغْتَ فَانصَبْ ﴿ ٧ ﴾ وَإِلَى رَبِّكَ فَارْغَبْ ﴿ ٨ ﴾

صدق الله العظيم

سورة الشرح

Dedication

To my father.

To my mother teachers brother ,sisters and friends with gratitude and love.

Acknowledgment

I would like to express my sincerest thanks to my supervisor, Ust. AbdAllh Salih Ali for his support, continuous help, device andencouragement throughout the completion of this thesis.

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Abstract

The main aim of this thesis is to design a wireless weather station using radio frequency to send weather data to central weather forecaststation.

The wireless weather station consisting of transmitter unit and receiver unit.

Also microcontroller and different sensors was used to design the station in real time .

The sensors will pickup temperature, humidity, pressure, and light then send data to microcontroller PIC16F877A to be processed and transmitted data via radio frequency to receiver station which represent the central station for weather forecast.

The central station consist of microcontroller PIC18F46K20 forProcess and personal computer and liquid crystal display(LCD)To display data.

The simulation of wireless weather station is run out by used proteus8, micro c, labview programs.

The simulation results proved the efficiency of wireless weather station.

مستخلص البحث

الهدف الرئيسي من هذا البحث هو تصميم محطه طقس لاسلكيه بأستخدام الترددات الراديويه لارسال بيانات الطقس الي محطه التوقعات الجويه المركزيه . تتكون محطه الطقس اللاسلكيه من وحده ارسال ووحده استقبال . ايضا تم استخدام المتحكم الدقيق وحساسات مختلفه لتصميم المحطه في الزمن الحقيقي.حيث تقوم هذه الحساسات بالتقاط بيانات درجه الحراره والضغط الجوي وشده الاضاءه وترسلها الي المتحكم الدقيق من النوع PIC16F877Aوالذي يقوم بمعالجتها وارسالها بواسطه الموجات الراديويه الي محطه الاستقبال والتي تمثل المحطه المركزيه للتوقعات الجويه .المحطه المركزيه تحتوي علي المتحكم الدقيق من النوع PIC16F46K20للمعالجه والحاسوب الشخصي وشاشه لعرض البيانات.تم محاكاه محطه الطقس اللاسلكيه باستخدام برامج proteus8, microc, labviewاثبتت نتائج المحاكاه كفاءه محطه الطقساللاسلكيه.

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