بسم الله الرحمن الرحيم

حَانَكَ لاَ (عِلْمَ لَنَا إِلاَّ مَا عَلَّمْتَنَاإِنَّكَ أَنْتَ

الْعَلِيمُ الْحَكِيمُ)

صدق الله العظيم

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Abstract

Home automation is very popular nowdays and it is common to read in magazines about its marvels. In its simplest form home automation is the ability to control lighting and household appliances remotely. With this device automation safety from theft, leaking of raw gas and fire is also the most important requirements of home for people. By GSM technology, this study proposes a new solution for

remote home security and device automation system. The proposed system is composed of the GSM module ,device control node and mobile phone. When thetemperature sensor detects too high indoor temperature or when the gas sensor detects leakage of gas, the data collecting node will send encoded alarm signal to the users through the GSMmodule and GSM network immediately. Similarly the user can also control the various devices connected with device control unit through SMS. The SMS received from the user to the device control unit in home. Depends on the SMS received the device control unit will control the corresponding device. This study provides ideal solution to the problems faced by home owners in daily life. The system is wireless therefore more acceptable and cost-effective. The home appliance control system automates various home appliances using SMS. The system uses GSM technology thus providing universally access to the system for automated appliance control.

ملخص البحث

الأتمتة المنزليةتحظى بشعبية كبيرةهذه الأيام، وأنه من الشائع أن تقرأ في المجلات عن الأعاجيب لها. أتمتة المنزل في أبسط شكللها هوالقدرة على التحكم في الإضاءة والأجهزة المنزلية عن بعد. مع هذه الاتمتة هناك سلامة للتشغيل الآلي للسرقة، تسرب الغاز الخام والنار وهذه من أهم المتطلبات فى المنزل للناس. من خلال تكنولوجيا GSM، يقترح مشروعنا حلا جديدا لأمن المنزل عن بعد ونظام التشغيل الآلي للأجهزة المنزلية . ويتكون النظام من وحدة GSM ، عقدة التحكم والهاتف المحمول.

مثلا عندما يكتشف جهاز استشعار درجة الحرارة درجة الحرارة في الأماكن المغلقة عالية جدا أوعند استشعار بالكشف عن تسرب غاز ، فإنه سيتم إرسال رسالة قصيرة (التنبيه) إلى المستخدمين من

الايه	i

خلال وحدة شبكة GSM فورا. وبالمثل يمكن للمستخدم أيضا التحكم في مختلف الأجهزة المتصلة مع وحدة التحكم في الجهازمن خلال الرسائل القصيرة. وذلك بإرسالSMS من المستخدم إلى وحدة التحكم في الجهاز من خلال نفس شبكة الاستشعار اللاسلكية التي أنشئت في المنزل. ويوفر هذا النظام حلا مثاليا للمشاكل التي يواجهها أصحاب المنازل في الحياة اليومية. لاسلكية نظام أكثر قبولا وفعالة من حيث التكلفة. يستخدم نظام GSM توفير الوصول عالميا إلى نظام لمراقبة الأجهزة الآلية.

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