

الآية

قال تعالى :

وَآيَةٌ لَهُمُ اللَّيْلُ نَسْلَخُ مِنْهُ النَّهَارَ فَإِذَا هُمُ
مُظْلَمُونَ ﴿٣٧﴾ وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ذَلِكَ تَقْدِيرُ الْعَزِيزِ
الْعَلِيمِ ﴿٣٨﴾ وَالْقَمَرَ قَدَرْنَا مَنَازِلَ حَتَّىٰ عَادَ كَالْعُرْجُونِ
الْقَدِيمِ ﴿٣٩﴾ لَا الشَّمْسُ يَنْبَغِي لَهَا أَنْ تُدْرِكَ الْقَمَرَ وَلَا اللَّيْلُ
سَابِقُ النَّهَارِ وَكُلٌّ فِي فَلَكٍ يَسْبَحُونَ ﴿٤٠﴾

[سورة يس: الآيات 37-40]

DEDICATIONS

This study is lovingly dedicated to our parents for their emotional and financial support, our brothers, our sisters and our friends whose has been constant source of inspiration for us. They have given us the drive and discipline to tackle any task with enthusiasm and determination. Without their love and support this project would not have been made possible.

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ABSTRACT

The automated process control systems used in everyday natural life necessities these days because the process control has many getting rid of human-controlled. Rail ways system in the world represents the most important means of connectors and modern face to the process of human control of the difficulties. Most companies tended operator of these systems for the control system. The idea of the project on the use of a microcontroller (Arduino Uno) to control train movement where this is done by using the sensors send electrical signals to a microcontroller when entering the train in their space and placed the sensors before the stations where controlled by exact unit will send a wireless connected by sending signals to wireless you receive the wireless receiver module on the train and that send electrical signal sunglass change the outskirts relay represents the key to run and stop the drive train.

مستخلص

تعتبر عملية التحكم الآلي في الانظمة الطبيعية المستخدمه في الحياة اليوميه من الضروريات هذه الايام لما توفره عملية التحكم الآلي من مميزات كثيره والتخلص من عيوب التحكم بواسطه البشر .انظمة القطارات في العالم تمثل اهم وسائل المواصلات الحديثه ولما تواجهه عملية التحكم البشري فيها من صعوبات اتجهت معظم الشركات المشغله لتلك الانظمة لعملية التحكم الآلي.تقوم فكره المشروع على استخدام متحكم دقيق (ارديوينو اونو) للتحكم في حركه القطار حيث يتم ذلك باستخدام حساسات ترسل اشارات كهربائية للمتحكم الدقيق عند دخول القطار في حيزها وتوضع تلك الحساسات قبل المحطات حيث يقوم المتحكم الدقيق عن طريق وحده ارسال لاسلكيه متصله به بارسال اشارات لاسلكيه تستقبلها وحده استقبال لاسلكيه في القطار والتي تقوم بارسال اشاره كهربائيه مكبره تقوم بتغيير اطراف ريلي يمثل مفتاح تشغيل وايقاف محرك القطار.

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LIST OF ABBREVIATIONS

USB	Universal serial board
LED	Light emitting diode
PROM	Programmable Read Only Memory
PWM	Pulse Width Modulation
RAM	Random Access Memory
ROM	Read Only Memory
RX	Receiver mode
TX	Transmitter mode