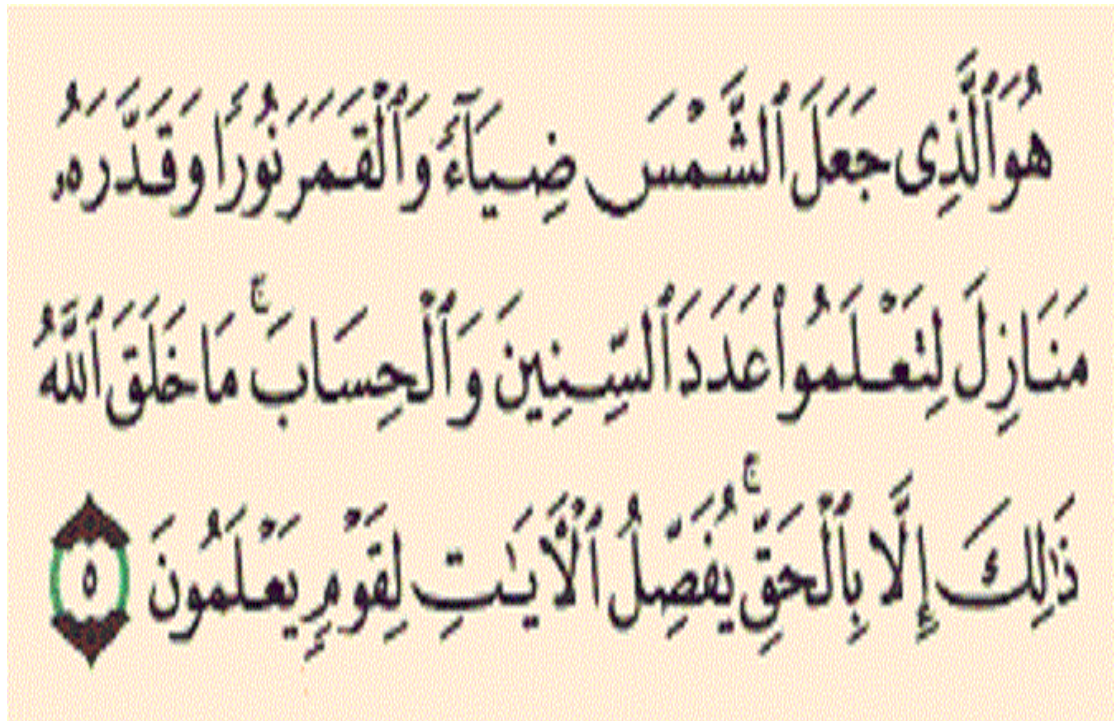


الآية

بسم الله الرحمن الرحيم

قال الله تعالى :



صدق الله العظيم

سورة يونس آية (5)

DEDICATION

Thankful appreciation for support, encouragement and understandings to our beloved mothers, fathers, brothers and sisters.

ACKNOWLEDGEMENT

First and foremost, we would like to express our gratitude to the most Gracious and Most Merciful **ALLAH** for helping us to complete this research.

It has been an honor and pleasure to have Ust. Galal Abd Alrahman Mohammed as our supervisor. We are grateful to him for the time given to us to make this requirement and for his valued suggestion. In addition to his huge knowledge and experience. We enjoyed his support and patience during the very tough moment of the research work and writing of the research.

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Abstract

The human deal with many problem and risks in any fields like: industrial fields, chemical laboratories and nuclear industries. These risks which mentioned above happen because the human doing it manually , because of that hand simulator control system has been built , to avoid that risks by doing what the human was do.

Hand simulator control system has been implemented to do work with high efficiency in fields mentioned above.

المستخلص

يتعرض الإنسان للعديد من المشاكل و الأخطار في شتى المجالات, مثل : المجالات الصناعية والمعامل الكيميائية والصناعات النووية. تلك الأخطار السابق ذكرها بسبب الاعمال اليدوية التي يقوم بها الانسان ؛ لذلك يتم تصميم نموذج لمحاكاة حركة ذراع الإنسان لتفادي تلك المخاطر بان تقوم الذراع الآلية بما كان يقوم به الإنسان. وقد تم تصميم نموذج للذراع بما يحقق العمل بكفاءة في المجالات السابق ذكرها .

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LIST OF ABBREVIATIONS

AC	Alternating Current
CPU	Central Processing Unit
DC	Direct Current
3D	Three-dimensional
EP	Emergency Procedure
IDE	Integrated Development Environment
IED	Improvised Explosive Device
LED	Light Emitting Diode
LEV	local exhaust ventilation
PWM	Pulse Width Modulation
PPE	Personal Protective Equipment
RAM	Random Access Memory
ROM	Read Only Memory
RPE	Respiratory Protective Equipment
SDS	Safety Data Sheet
USB	Universal Serial Bus