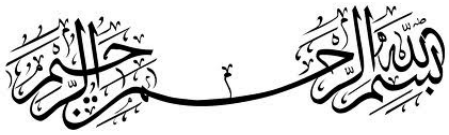
الآيـة



قَالَ تَعَالَىٰ:

﴿ إِنَّ فِي خَلْقِ ٱلسَّمَٰوَٰتِ وَٱلْأَرْضِ وَٱخْتِلَٰفِ ٱلَّيْلِ وَٱلنَّهَارِ لَءَايَٰتٍ
لِّأُو۟لِى ٱلْأَلْبَٰبِ ﴿١٩٠﴾ ٱلَّذِينَ يَذْكُرُونَ ٱللَّهَ قِيَٰمًا وَقُعُودًا وَعَلَىٰ جُنُوبِهِمْ
وَيَتَفَكَّرُونَ فِي خَلْقِ ٱلسَّمَٰوَٰتِ وَٱلْأَرْضِ رَبَّنَا مَا خَلَقْتَ هَٰذَا بَٰطِلًا
سُبْحَٰنَكَ فَقِنَا عَذَابَ ٱلنَّارِ ﴿١٩١﴾ ﴾

صـــدق الله العظيم

سورة آل عمران: الآيات (١٩٠ ــ ١٩١)

Dedication

Special dedicate for my parents that without them it will be a day without a sun guiding us in the darkness.

My teachers that gave us information and all staff in Sudan University.

Finally yet importantly is dedicating this project for every one that helped us to be at the place that we are today.

Acknowledgement

First of all, I would like to great our supervisor

Dr. Mudathir A.O. Fagiri who always offered support and ideas to make the project a success.

In Addition I must grate my entire teacher for his helpful in this project and all engineers who introduced their assistances for me.

And special thanks for Sudan University for its great staff and laboratories that play a backbone in our research.

Abstract

The national security is a matter of concern to all government and due to the technology revolution the world become having the power of protecting incents from wars and covers their country boarders due to the Dangerous missile problems that may be harmful, Reduced Accuracy and increased human mistakes while using manual mode, There is no data logger in the existing systems.

In this thesis a design and implementation of missile launcher based on microcontroller and wireless communication control is done. Five phases were done to achieve the study construction, in Phase one the study system model is simulated through simulation programs to ensure that the components rating are correct. While phase two includes the design of Printed Circuit Board (PCB) and the assembling of components. In phase three the testing and calibration is done, while phase four includes the results and comparisons of each experiment and tests are done. While phase five includes notes of conclusion, recommendation and future work.

المستخلص

الأمن القومي مسألة بالغة الأهمية لكل الحكومات في العالم بسبب ثورة التقنية الحديثة والتي جعلت من العالم إمتلاك قوة وحماية تكنولوجية من الحروب وحماية بلادهم بسب القذائف الخطرة، قلت الدقة وزادت أخطاء الإنسان أثناء إستخدامه للنظام اليدوي، ولا يوجد سجل للبيانات في الأنظمة الحالية.

وفي هذا المشرو ع تم تصميم وتطبيق قاذفة القذيفة تستند على المتحكم الدقيق وبسيطرة إتصال لا سلكي وهناك خمسة مراحل عملت لإنجاز بناء المشروع في المرحلة الأولى من المشروع نموذج نظام المشروع سيقلد خلال برامج المحاكاة للتأكيد من أن المكونات صحيحة والمرحلة الثانية تتضمن تصميم اللوحه الإلكترونية المطبوعة وتجمع المكونات ، في المرحلة الثالثة إختبار المشروع والتأكد من عمله أما المرحلة الرابعة تتضمن النتائج بعد مقارنة كل تجربة وا ٍختبارها لإستخراج النتائج المعمولة في المشروع بينما المرحلة الأخيرة تتضمن الخاتمة والتوصيات والعمل المستقبلي.

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Abbreviation

ASK	Amplitude Shift Keying
AVR	A modified Harvard Architure
CISC	Complex Instruction Set Computer
DC	Direct current
DLP	Dual in Line Package
GND	Ground
HMG	Heavy Machine Gun
LED	Light-Emitting Diode
LCD	Liquid Crystal Display
PCB	Printed Circuit Board
PLC	Programmable Logic Controller
RISC	Rejoiced Instruction Set Computer
SMT	Surface Mount Technology
VCC	Voltage Common Connecter

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