الآية الكريمة

بسم الله الرحمن الرحيم

صدق الله العظيم

سورة الكهف (١٠٩)

DEDICATION

To My Mother,
Father,
Wife,
Children,
Brothers, Sisters,
And any teachers…

ACKNOWLEDEMENT

All thanks to Allah

I would like to express my sincere gratitude to Supervisor Dr Eisa Bashier for his sound advice and patent guidance during the entire period of the study. With sincere appreciation, I am indebted and grateful to my mother, father and wife for their encouragement and support.

ABSTRACT

Automatic control (AC) and Voice commands (VC) are both considered active and progressively developing topics the thing that gives motivation in regarding them as vivid items to exert effort and work on.

In fact whenever an (AC) system is described as advanced and accurate that means it has a high degree of automation, also on the other side a (VC) system is described efficient and well developed whenever it has a fine degree of quality in speech recognition (SR).Thus tuning those two parameters to reach their maximum while preserving their interoperability will give rise to automatic control using voice commands (ACUVC) systems, the subject of this research.

No doubt that the purpose of speech is communication i.e. (Man-Machine) which is a bidirectional relation which implies that it is possible for the computer to accept information given to it, or to give information in the form of spoken message. It is fair enough to state that the topic (VR) is entitled in this project by a percent of just 30% which means that (VR) will not be the subject on focus for this project and it was not intended to be so in any means it is just a mechanism by which voice commands are implemented, thus it is explained to the extent and edge that enables achieving its original desired stated goal to assist in making the project realizable.

The above paragraph stressed on the point that there are other vital topic in this project which is (AC) that occupied around 70% of the research.

مستخلص

التحكم الالي والاوامر الصوتية من المواضيع المهمة المتقدمة الشئ الذي يعطى تشجيعا لاعتبارهما موضوعين مختلفين والبحث فيهما.

في الحقيقة عندما نصف نظام التحكم الالى بانه دقيق ومتقدم فهذا يعني ان له درجة عالية من الاتمتة. ايضا على الجانب الاخر يوصف نظام التعرف على الصوت فعال ومتطور كلما كان لديه درجة جيدة من التعرف على الكلام وكذلك الاوامر الصوتية.ولذلك باستخدام هذين المتغيرين والوصول للاستخدام الامثل وربطهما مع بعض نصل الى التحكم الالى باستخدام الاوامر الصوتية وهو موضوع هذا البحث.

ما من شك ان الكلام وسيلة للاتصال مثلا التواصل بين الانسان والالة وهى متبادلة بين الجانبيب مما يتيح للكمبيوتر استقبال وارسال المعلوات والاوامر الصوتية.

من المنصف ان نبين ان شرح كيفية التعرف الصوتى يمثل فقط ٣٠% من هذا البحث مما يعنى انه التعرف كيفية التعرف الصوتى لن يكون موضوع تركيزنا فى هذا البحث ولكننا استخدمنا هذه الطريقة لارسال الاوامر الصوتية وهو هدفنا من هذا البحث.

من الفقرة اعلاه يمكننا ان نصل الى ان موضوعنا الاساسى لهذا البحث هو التحكم الالى وهو يمثل حوالى ٧٠% من هذا البحث.

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List of Abbreviations

-**ACUVC**: Automatic control using voice commands

- **ASR** : Automatic speech recognition

-**API** : Application programming Interface

-**DLL** : Dynamic link library

- **ODBC** : Open database connectivity

- **OLE** : Object linking and embedding

-**COM** : component object model

-**VB** : Visual Basic

-**VC++** : Visual C++

-**MSE** : Microsoft speech engine

-**PP** : Parallel port

-**AC/DC** : Alternating current/Direct current

-**LED** : Light emitting diode

-**PAM** : Pulse amplitude modulation

-**LIB** : Exported library