A Methodolgy for the Design and Implementation of a Hardware Proof Snake Type Robots Machinery

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Abstract

In this literature, the author attempts to disprove theory for the National 863 Research Project"Jiao Long Manned Submarine"″ and its environmental testing results.

Keyword : Pattern Recognition; Machine Learning; FEA; LLVC; MAPLE

1. Introduction

The design approach for the proposed 863 research project definitely has important impacts on the TsingHua University Relevant Deep-Ocean-Detection laboratory, located in the School of Astronautical Sciences Institute of TsingHua University, Beijing.

The author after careful implications by computer simulations, proposes a novel design for the 863 project. It is asserted that the project cannot go into the deep water testing stage since the submarine type Deep Ocean Detectors will not sink but always float on the water surface and no amount of effort can make them sink into the water, as these machines will inevitably reject the requests, and return to the water surface. This is not dependant on any huge waves environmental parameters just as the Tsinghua University's Researchers and Professors have proposed. The testing photos are questionable and may not be depicting the real situations.

The author pleads for the Ei Compendix to retrieve all the supports on the fully functioning, ongoing project. This will help the author to avoid questionable situations and non acceptance situations into acceptance by the relevant research world. This research paper will be fully online using Baidu Wenku (typically indexed by Google Scholar: scholar.google.com quite alwaysly). This fully photoed website will show that the 863 project is man-made and cannot be realized.The man-power shown in the photo are not related or may hamper the author to publish real research results into Ei (www.ei.org) and other research databases.

The major objections to the proposed 863 project is as follows:

- *The Archimedes's Laws substantiate how the submarines can float and not drop down the ocean. This means the design is not scientificl and has not gone through sufficient testing.
- *The so-called "elevator" effects has not been considered, rendering the real objects' design experiments questionable.

2. Basis of Design Chinese National Level 863 Big Project

The national level 863 project: "Jiao Long Manned Submarine" and its real environmental testing results, lack some system control device modelling utilising using fluent type of Finite Element Analysis (FEA) software and rendering the design proposed without fully considering the water pressure effect, while the submarine is sinking or dropping by man-power down the water surface. Their analogy and derived results is completely based on "communicating vessels" theories, in which the water pressure is increased according to the depth of the pressure-meter. However, the absence of tube structures and the design approach are inappropriate to be considered as a simulation model for the 863 project.

Consideration should be given for the so called "elevator" effects on results, while the bulk vacuum space inside the submarines should be thought of as an adverse factor for the deep water measures.

The design approach of those researchers in TsingHua University and in China Technology Governing Department(P.R China Technology-Governing Department) lack authentic experiments and the use of some irrelevant photos seem to enhance their talent and research ability . The author proposes a novel way to deal with the problem with relevant computer models, together with fully functioning computer softwares to do the simulations and hardware experimental estimations.

3. The 863 Project's Design Approach Proposed

The design approach for the author's "elevator" effect explanations and estimations using LLVC and Virtual PC is as follows:

First the "elevator" effects should be explained using NASA's words: "According to recent survey by CIT(California Institute

of Technology), and Purdue University Indianapolis's research findings and their implementations on the Carbon-Detecting Satellite Project, and also based on the newly launched (in 2010 July) Satellite's direct inspection which is for this the purpose of space CO2 detecting and carbon Fingerprints detecting on earth and in the universe, the elevator effects will happen whenever, a substance is smally by smally merged into another type of substance, however, without any revelation with the density of both substances. In which effects, the object will have an unilateral adverse force to make it high above the other substances, so that highly pull should be applied to the try-to-merge object and make the object can have a high pressure on the water surface, the pressure should be more than the whole weight of the object for two to four times before the object can stop bouncing out of the other object's surface".

In this situation, the elevator effects applies to three aspects:

1) the design approach focuses on how to make the submarine sink into the water easily. According to the reporter's photos and explanations[2], the photos show that the submarines are too narrow and too small to provide a space to load more water inside the ship .This is usually well-known when explained when ordinary submarines can work in the sea.

However, the designed submarines devoid of this kind of mechanisms,cannot sink into the water easily, a very significant problem for the TsingHua University's researchers and the minister and vice-ministers of China Technology Governing Department and the NSFC (natural Science Foundation of China).

2) The Archimedes's Laws applies in all kinds of technologies relating to water, and according to its bulk vacuum space design approach, the engine should not be only set at the back of the submarines, but set in front and on top of the submarines. so should the designers set one at the bottom of the ship in order to facilitate steering? This is very critical for the "elevator" effects' resolve- how to provide enough pressure on the water and submarine interconnection surface?.

3) The third question is toexplain the assumption that submarines can change directions easily down the water. This can only be done by adding two more turbulent engines at the left and right sides of the submarines.Thereby directly adding forces at one side to allow the submarines to change direction, primarily a pitfall for this project.

4. The Fallacy of the 863 Design Approach in Implementations

In design implementation part, the software robustness of the system should be taken into account. The system according to the natural Science foundation of China's posting, uses 6-degree robot control and has "successfully achieve" 8 degree control freedom and to become a novel star in global technological field. I do not think this type of novas can work effectively.

The design approach of the whole system design is mainly to deal with the control freedom degrees in system control theory. When reading through modern control theory render the system directional steering capable -unrelated to any software modeling by using direct control of PCs and Microprocessors. Such designing is very simple.

However, based on the theory the TsingHua University Researchers' Objectives, the design is proposed using a type of hybrid-design, is dubious

The author suggests that Mix Forces and Mix Factors Control using a single software can deal with this problem, coupled with a single modern MIMO(Multi-Input-Multi-Output) design methodologies. Herein pattern recognitions are implemented by performing biometrics-based PCA and LDA and also SVM designs.

The modern textile video and mixed-data segmentation algorithms EM/MPM also convey the same idea.

The design schematics are illustrated using FPGA verifications and thus is capable of hardware implementations and the system is linear and can be fully realized.

The coding style are as follows:

DESIGN ENTITY VHDL AND VERILOG-PLI

DESIGN USING LLVC && GCC || G++&PERL,;.

USING EM ALGORITHM & MPM SEGMENTATIONS IN GPP &&GRR&GFF,.:

USING FPGA,:"

Using ccf&&rrg&ffh&ddf&sse&ddfr&ssdc&vfg. End

"using namespace ccv-o-0-r-f-v. USING JAVASCRIPTS IN GCC. USING PERL IN GPP.

USING LLVC IN G++.

USING LLVM IN ECLIPSE && G--. END.,;

The software can be directly synthesized into FPGA and prove my words.

5. The Revised Version of the Design Approach and Conclusions

The design methodologies are proved to be MIMO and BIBO, so that the system can be used by performing adding more turbulent at the front, back, top, bottom, left, right (six sides in total) side of the proposed submarines, and the whole software verifications are

also proposed. The system can definitely be implemented practically.

6. Reference

Lumped System Theory: www.engr.iupui.edu/ece/Graduate/ece602.pdf
"蛟龙号载人潜水器" and its real environmental testing results: www.863.gov.cn/news/1207/16/1207163900.htm

7. Biography

Feng An, 1987- now, received his MS Degree in Electrical and Computer Engineering from Purdue University Indianapolis Campus (IUPUI). His research focuses mainly on the design patterns applications in robot , its robustness and robust control design methodologies in this roboticsera.