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Review Article

Discussions to Development of Artificial Intelligence Industry in Africa IV

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Abstract

The future trends from high technology to artificial intelligence industry are analyzed in detail. Put forward to the implementation of high technology and artificial intelligence products and put their possibilities into practice. Specific response measures are pointed out in two respects, indicating that they are urgently needed to run the factory products. In additional the artificial intelligence products shall be established in Africa in order to promote new and innovative energy. Due to its low labour and undeveloped industry many opportunity will await us to mine its countless chance and profit. Like south eastern Africa they can live together with better status because of their development. So if endeavor is imported many new project will be found by us together. Let us continue to pay attention to Africa for better benefit and common development. Scheme design should includes cost control which may be evaluated by relative institution. Once it passes by the construction will proceed relative plan to complete the building work. Only it fits to local status can it be done preparation work. For the purpose of the common development we should enhance the technological communication to construct the beautiful world with high artificial intelligence industries in African continent.

Keywords: Africa, industry, development, discussion, artificial intelligence(AI), automobile, component, central processing unit(CPU), semi conduction, random access memory (RAM), driverless, diagnosis, scheme preparation, scheme evaluation.

1 INTRODUCTION

Africa is a laggard continent. Its agriculture, industry and service has been lied in need to be developed. There are someone who searched agriculture production like tomato and find its profit is potential. Others proposed the suggestion that agriculture mechanization is a good method for promoting efficiency. There is someone who suggested the investment to plan in automobile manufacture and sale. The mobile manufacture has been prevail which lies in world tendency and positively proceed. Since it is laggard in industry the related factory has advantage to develop by its advantageous atmosphere. It may leap some space to the most prevail styles. Due to its low price source and labour Africa may attract investment easily which is an advantage to African advanced industry [1-3].

For the sake of convenience we may use the quantity computer to proceed large calculation like infrastructure, medical data process and common enterprise. We can just use the result to update data and design new one according to results. It will save our time from annoyed simple calculation. We just patch person to inspect the course to fix some matter. It is the advantage from which the optimum operation may be formed and all we doing is just use result. Since Africa is wide and big continent there are many opportunity and challenge it shall be discussed thoroughly in all three industries. Now the situation is more and more development due to other countries attention and profit. Including China etc. The world manufacturer and agency shall proceed its advantage to there in terms of its best manufacture and market. If it can use the Africa fitly they can make much anticipated profit [4-6]. Therefore emphasizing Africa may give us a big present and due to low price and not development which is a potential big market and jumps development in terms of the local they may provide many challenges. The advanced artificial intelligence in Africa has been investigated in this paper as below discussions. The three parts are divided into for us to read. The destination has explored and looked for the optimum

method to establish a different and changeable Projects and items in this study.

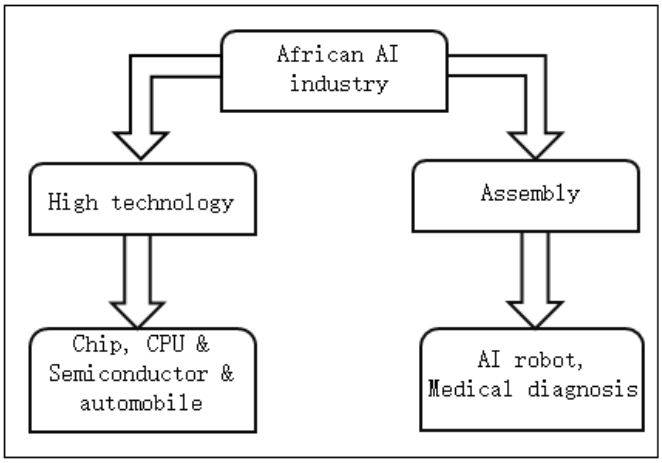

Figure 1: The arrangement in African AI industry

2 DISCUSSION

2.1 Automobile &Computer CPU

The automobile consists of thousands of components which includes in different factories to supply those so the ones form suppliers to produce automobile as seen in Figure 1. It is considered whether their quality and price is reasonable or not by technique, quality department and sale division. Specially the quality needs to be considered thoroughly to make a decision to use their components to assemble the integrate one with reasonable price correspondingly. Meantime the cost control may be proceeded to estimate the cost value. The price should be higher than total cost, which may be profit with their minus. To control the relation between quantity and cost is to save cost in a certain quantity. As we knew that many products may decrease total cost in certain time, therefore to control the reasonable quantity may acquire more profit. If the quantity increases the cost may decrease, therefore the benefit may become high. The method has many to decrease the cost, for example increasing the assembly line, increasing labour work time and high quality efficiency steel and module & machine quality.

Like computer construction the CPU (central processing unit) computes the course according to RAM (random access memory) from the hard disc, furthermore the rapider computation may be proceeded if the CPU is big deal per second. Therefore the rapider IC (integrated circuit) determines the rapider computation like computer from RAM and hard disc. The CPU as a integer circuit module has dominated the computation with very fast speed about 2G per second currently. However in future the speed may attain 70~100G per second called as quantum computer. In China the advanced CPU is 4~6G per second in computer but in future the processing speed will arrive about ten times even fifty times which are proceeded in research. It may be transferred to T ray which is more large maxium10T terahertz from D molecule. RAM is the main part in a computer whose accommodation is 6 G in the latest one, so the computational speed is increased several times. Therefore RAM is the criteria in evaluating compute which may represent the latest technology. The RAM has been developed from original 286M in 90 time to 6G currently. The increasing times attain 200 times in thirty years. According to the speed after ten years the one will arrive seventy times ie half one. CPU may be increased a certain to deal with large data and cloud computation. Like quantity computer, the speed attains 70G whose one is the most advanced computer up to Current status though it is in research still. Therefore RAM and CPU together developing has become integral one. Due to big data the computer will good RAM besides good CPU so as to deal with cloud computation.

2.2 AI-Semi Conduction

As seen in Figure 1 the African AI industry includes two respects they are high technological project and AI robot assembly etc. The core has been high technological one that may affect the AI industrial level, on the contrary the AI may affect the semi conduction too. The base has been AI whose effect may guarantee and ensure the high technological level proceed because it is one country power. The artificial intelligence is for the future since it can substitute human being to work for next generation and us. Meantime it can be fixed after a certain time that may hire us to work with fixing. If we can use reasonably its function it will cover and work for our difficulty and dirty place whose fix may be under control by us meantime we may monitor it to look for solution once it meets matter. Therefore the key problem is the reasonable use and exploiting its innovating function whose wielding must be big percentage according to the future demand situation.

The semiconductor has been the core which includes the high technology product like the PLC (programmable logic controller) includes the chip that is integrated circuit plate and PCB(printed circuit board). The former involves several billion elements such as transistor and the later has circuit which controls the former eventually. All the component forms a system to wield the automatic functions in industrial flow line. Besides whether it includes AI technological data it can be upgraded to be an AI device so as to be rapid. This is an important course to upgrade automatic flow line to AI flow line whose function leaps into high technological level. We can regulate and repair the device simply wherein the device like robotic arm may wield its advantage like human being brain in flow line. So the three functions may be clarified in flow line eg. The dynamics of robotic arm, electrical control to motor and electronic logical controlling motor which includes AI function. Besides, it can regulate the currency in order to gain its different circuit information to complete its logical course in short time like a second. Since the voltage has been changed to DC electricity it may change DC into binary system to control the motor. It has been simple change. It may only control the logical arithmetic and judge with AI neural utility. To use big data reserving to PCB the chip can operate logical arithmetic and identify so as to utilize AI neural net. The AI involves inside chip whose function may be done through logical integrated circuit plate. Since the data is big the logical integrated circuit plate should compute from reserved hard disc.

2.3 AI-Vehicle & Medicine

The AI vehicle includes the same functions like the driverless function may be attained according to process as mentioned above. The lamp function is the regulation of light according to the lightness of lounge which is AI function too. It is used in Beijing Daxing international airport. In rear view mirror of vehicle the same regulation may be realized in terms of the situation in rear vehicles and object through AI in future. The front lamp also may be manufactured by AI function which can be regulated in terms of the lightness of road. The sensor may be assembled inside IC in vehicle then in terms of the sensor identification the logical order may be formed into software so as to complete “yes” or “no” for next language or cycle order to control the currency which identifies the digital order in IC. If the 0 and 1 is identified in terms of the sensor control they may be complete their regulation function as seen in Figure 2. Here the sensor takes information to feedback wherein according to the voltage and currency will proceed continuously and if not satisfy the condition the return to IC and recycle logic will become. This is the model of AI which can be proceeded in terms of value by sensor, eg. The driverless function, sound control and face identification. It can be formed the order through feedback that is controlled by sensor in order to identify the subject to proceed order and operation by currency. The operation may be controlled by order that is currency. Different order has different currency therefore operation may do different function like left, right, acceleration and brake in diverless car etc. The important one is the currency which controls all the detail function degree so that how to form it is designed by electric circuit design which may be controlled by electronic design ie programme whose function is logic design. Sensor and feedback has figured out function if it fit to logic language it is arranged one side and not the other side. Sensor is single silicon to catch the voltage of diode while detecting the one by feedback to proceed logic language and operation. The IC will detect the route from three groups logic case which combines the large data case to check them at a short time.

Then the reasonable and best one may be recommended by AI programme, eg. the driving left and right to avoid the risk. It even may deep study through the new input case to further research the sophisticate route with complicated study. So the thousands or more of case is needed to search by them with AI programme. The failure cause may be even detected by failure tree. In hospital the digital film taken from CT (computed tomography) and therein the diagnosis result may be checked out by AI system very fast and precise, therefore it takes convenient measure to patients and doctors who may decide together. This technological level may be developed by electronic engineering scholars and high technology relative engineer. The later has been published that the whole service after digital photography may be in searching level. Its role will fatal to improve the AI diagnosis level and speed. If we check the black and white graph pixel with magnifying times through the case restored in software the same diagnosis and remedy scheme in detail with doctor may be acquired immediately. So it is an innovation change.

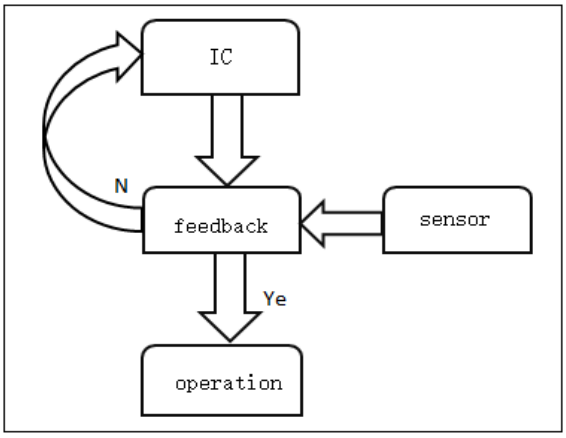

Figure 2: The logic arrangement in IC and sensor

3 CONCLUSIONS

As to high technological and AI industries the later is important which can support the former efficiently. The detail distinct is concluded according to

this study respectively. For example Computer industry it has been a high technological project to proceed in future. Particle and quantum computer is a promise project. It can promote the chip applied to other AI products like robot and driverless auto etc. As AI products are more and more large they are made in order to obtain convenience and rapidness action. The new African industry includes these two respects whose role is dominant year by year, therefore to completely use them is the our main destination. We should pay more attention to them for the sake of most profit it took us. We shall know how to plan and proceed it at all whose method and speed is significant. We must rapidly make detail AI products plan and propose it to related mechanism to approve it. We may propose different projects to discuss the feasibility through combining the local situation. As to the reasonable projects we shall decide the reasonable one and start to proceed the building task from now on. The cost decreasing has been proceeded in order to make best profit in scheme design. Furthermore scheme design needs to be evaluated in authorized structure simultaneously.

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