Application of Microelectronics Computer Auxiliary Function under the Internet of Things Platform

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Abstract: With the continuous deepening of economic globalization, the pressure of market competition faced by all walks of life is increasing day by day. If it occupies a place in the fierce market competition, it must continuously improve technological level and technical content. Nowadays, science and technology have become an important standard to measure a country’s comprehensive strength and development status, and the improvement of science and technology has also risen to the level of national development strategy. As the core of all high-tech technologies, microelectronics technology can turn some unreachable technological products into reality. Combining it with the Internet of Things, it will help lay a solid foundation for technological innovation. Therefore, this article analyzes the concepts of Internet of Things and microelectronic computers, and deeply studies the meaning of the combination of the two. At the same time, it expounds the application of microelectronic computer auxiliary functions under the Internet of Things platform, hoping to provide references for professionals.

1. Introduction
Since the 21st century, the whole society has entered the information age. The spread of the Internet has become more and more widespread. To a certain extent, it has changed the lifestyle and work mode of the masses of society. With the continuous reform and development of information technology, the importance of the Internet of Things in the information field has gradually become prominent. The so-called Internet of Things is a concept evolved on the basis of the Internet. It has a certain connection with the Internet and can enable information exchange between objects [1]. Although the development time of the Internet of Things is relatively short, it has shown unparalleled superiority in the field of information technology. Nowadays, more and more experts and scholars focus their research on the Internet of Things and propose to combine the Internet of Things with microelectronics technology to achieve the grand goal of technological reform and innovation.

2. The Internet of Things and microelectronics computer concept
2.1. The Internet of Things concept
The Internet of Things is a huge network system formed by combining information sensing equipment such as infrared sensors, laser scanning devices, and radio frequency identification devices with the Internet. The network system covers a wide range of high-tech technologies, including modern network technology, wireless communication technology, and embedded computing technology. It can monitor and control people and things in real time through multiple types of sensors, and then transmit the monitored information to the client. It can be seen that the Internet of Things can enable remote
sensing and control between people, people and things, and things and things, which not only saves time and effort, but also achieves the goal that a scholar never leaves the door and knows everything. In addition, by connecting to the Internet, the Internet of Things can also form a smarter life system.

2.2. Microelectronics computer concept
Information construction is inseparable from the support of computer communication technology, and microelectronics technology is the core and foundation of computer communication. The so-called microelectronic technology is a high-tech electronic technology derived from the semiconductor devices of integrated circuits, which has many advantages such as high efficiency, light weight, and small size [2]. Combined with the development process of microelectronics and computers, it can not only promote the healthy development of society and economy, but also lay a good foundation for the continuous progress of science and technology. From the above analysis, it can be seen that under the background of the new era, the Internet of Things has become a rising star in the world. More and more experts and scholars have carried out a series of studies on the organic combination of the Internet of Things and microelectronics, aiming to create an era of microelectronics based on the Internet of Things.

3. Internet of Things and microelectronics
Under the background of the new era, microelectronics technology has been widely integrated into people’s lives and work, ranging from household appliances to aerospace, all of which reflect its application advantages and value. Especially in the application of the Internet of Things platform, it has achieved remarkable results. As mentioned above, microelectronics technology is the core of all science and technology, which has a positive effect on the innovation and development of electronic products, and can realize the needs of lightweight and miniaturization in the design and manufacturing of electronic products. Especially at this stage, electronic products have become a necessary material condition for people’s lives and work, and their consumption levels are also showing a continuous upward trend, which promotes the electronic market to become more and more active, and with the continuous innovation of microelectronics technology, some are out of reach. High-tech products have also become a reality. The combination of the Internet of Things and microelectronics is an upgraded version of traditional microelectronics technology. However, everything has advantages and disadvantages. With the continuous expansion of the popularization of microelectronics and computers, some of the problems that exist in them are gradually exposed, and the most interesting one is the problem of information security [3]. Therefore, in the process of integrating the Internet of Things and microelectronics, it is necessary to attach great importance to information security protection, so as to improve people’s consumption level while effectively preventing harmful phenomena such as hacker intrusion and system damage.

4. Microelectronics takes a dominant position in social life
In recent years, the development of microelectronic computers has grown rapidly and has become a key component of high-tech science and technology. It covers a wide range and refers to a microprocessor composed of multiple effect transistors integrated on a small electronic chip. It uses the processor as the central processing unit to form a computer system. Microelectronic computers can not only improve people’s quality of life, but also create maximum economic benefits for social development.

The development process of microelectronic computers is relatively tortuous, but the achievements and progress achieved are very significant. At this stage, it has a relatively mature integration capability, and the system functions are gradually enriched. The operation speed is also increasing, and the energy consumption is decreasing. This also improves the reliability and safety of microelectronic computers to a certain extent. Especially in the context of the new era, science and technology have developed rapidly, and computer storage capabilities have increased accordingly. Users can use terminal equipment to store and back up data at any time within the network coverage area, which
helps to ensure the integrity, soundness and safety of data, and allows users to access data at any time in life and work [4]. With the enhancement of computer storage technology, some storage problems have been further resolved. The application of cloud technology to the Internet of Things can upload stored data to the cloud for backup in a timely manner, which is conducive to solving the problem of data leakage from the root cause. Therefore, users can make full use of microelectronic computers to establish and manage databases to complete complex tasks such as bibliographic retrieval and archive storage. It can be seen that the organic combination of the Internet of Things and microelectronic computers can bring out the functions and effects of microelectronic computers to the fullest.

In addition, under the platform of the Internet of Things, microelectronic computer systems are becoming simpler and more convenient. Specifically, a microelectronic computer can create a database related to the dictionary file structure. On one hand, it can meet the virtual storage requirements, and on the other hand, it can be set in a secure storage area. This is also the most significant of microelectronic computers under the Internet platform. It can be applied not only to data processing and data processing, but also to system development and application. It can be seen that the integration of the Internet of Things and microelectronics will help enrich its functionality and make the functions of Utopianism in the past become a reality. In addition, with the rapid development of the microelectronic computer system itself, the microprocessor has further expanded its application range. At this stage, microprocessors have been widely used in many fields such as photography, communication, and copying. In the actual application process, it is mainly based on the microelectronic computer to control the processing facilities online or offline, so that the information and data can be continuously improved in storage and retrieval, thereby enhancing the status of the microelectronic computer in social development. Nowadays, microelectronic computers have become one of the indispensable tools in people’s life and work. They can not only lay the foundation for business people to carry out their work, but also contain the necessities of people’s life and study like the human brain.

5. Application of microelectronics computer-aided function under Internet of Things platform

With the continuous advancement of science and technology, computer technology has also been optimized and improved accordingly, and has continued to develop toward intelligence. It is expected that in the future development process, computers can understand human language, human actions, human thoughts, and be flexible to communicate with human. Since the Internet of Things is running, pervasive and cloud computing are important computing tools among them. E-commerce is an application model evolved from the innovation and development of microelectronics in modern society [5]. This article will conduct in-depth research on pervasive computing, cloud computing and e-commerce. The details are shown in table 1.

| Auxiliary       | Specific applications                                                                 |
|-----------------|----------------------------------------------------------------------------------------|
| Ubiquitous      | It is a kind of calculation which emphasizes the integration with the environment and makes the calculation itself disappear in people’s realization. |
| computing       | In this computing mode, people can obtain and process information in any way at any time and anywhere. |
| Cloud           | The huge data computing program is decomposed into several Mini Programs mainly through the network cloud, and then the Mini Programs results are analyzed by the system composed of the server, and feedback to the user in time. |
| computing       | It mainly refers information network technology as a means and commodity trading as the core of business activities. It is the traditional business activity electronization and the information one kind of embodiment. |
| E-commerce      | It can grasp the basic situation of computer dynamics, understand computer output, export volume and market changes, and collect relevant information to provide reference for department decision-making. |
| Database        |                                                                                       |
5.1. Specific applications of pervasive computing
Pervasive computing is a new computing model developed on the basis of mobile computing, sensor technology, and communication networks. It has the function of unlimited use of computer and information resources. It can closely wash the physical space generated in people’s daily life and work with the computer and perform calculations. This is also as stated in table 1, and can be integrated with the environment. Adding calculations together can embed the computer in the Internet of Things.

5.2. Cloud computing specific applications
Cloud computing is a computing model developed on the basis of the Internet of Things, which can accurately calculate resources and provide them for users, thereby improving the level of resource application. In the process of cloud computing, users do not need to master the cloud infrastructure and details. It needs to understand the required resources and how to obtain services through the network. The application of cloud computing has realized a business model based on the Internet, laying a solid foundation for the innovation and development of the Internet of Things technology. In the actual application process of cloud computing, multiple computers can be connected to professional network companies at the same time to achieve data storage and calculation goals and form cloud, which can provide users with convenient access to resources.

5.3. Specific e-commerce applications
Under the background of the new era, e-commerce has become a new industry in social development. It achieves the goal of using computer technology to handle business work, which is conducive to improving work efficiency and quality. In addition, the use of electronic technology and network technology solves commercial business and completes commodity transactions and document processing and other related tasks. It is a business model that mankind has been pursuing and exploring for many years. From a narrow perspective, e-commerce is a manifestation of the informatization and electronicization of traditional business activities. Sales transactions are completed through online sales of products [6]. Based on the actual situation, e-commerce not only has online transaction functions, but also affects the activities of the product from production to transaction. All in all, e-commerce can bring buyers, sellers, and manufacturers to online platforms and carry out diversified business activities.

5.4. Database specific application
In order to be able to describe the Internet of Things more clearly, it is necessary to use the Internet of Things technology to build an Internet of Things information function model. It can not only identify and perceive information, but also perceive the state of things and the way they change. At the same time, in the process of sending, receiving, and transmitting information, it can transfer the final state of things from one point in space to another. In terms of information processing, it needs to realize the recognition of things and use existing information to form new information. A good foundation is laid for decision-making. Figure 1 shows the Internet of Things from a data perspective. Figure 2 shows the difference between perception databases and relational databases.
6. Conclusion
In summary, the organic combination of the Internet of Things and microelectronics is not only the only way for scientific and technological reforms, but also an inevitable demand for promoting the healthy development of social economy. The research and exploration on the integration of the two is still in its infancy, and it is necessary for experts and scholars to be perfect and give full play to the coordination role of the two. It is believed that the theoretical research on the combination of the Internet of Things and microelectronics will gradually turn into an industrial result, thereby laying the foundation for improving the national scientific and technological level.

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