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Application of Artificial Intelligence Technology in Electronic Engineering

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Abstract:

In line with the theme of the times, artificial intelligence technology emerged as the times require and occupies a supreme position in the information technology era. The emergence of artificial intelligence technology has changed all aspects of the mechanical and electronic engineering industry, such as the transformation from previous reliance on power connections to new information connections. This cannot be achieved by relying on traditional mechanical engineering. Artificial intelligence technology has greatly improved production efficiency and provided more possibilities for sustainable development.

Keywords:

Artificial Intelligence technology; Electronic engineering; Application

1. Overview and characteristics of electronic engineering and artificial intelligence technology

1.1 Overview of electronic engineering

In order to improve work efficiency, some companies have begun to use electronic engineering. In the traditional form of enterprise production, production is generally carried out by the hands of employees with limited power. Not only it has the lower work efficiency, it also prone to some quality problems, the product qualification rate is low, and the labor safety of the staff cannot be guaranteed. As a new scientific and technological means, the emergence of electronic engineering can replace most laborers, improve productivity, ensure product quality, accelerate social progress, and bring more economic benefits to society. However, electronic engineering also has certain drawbacks. Therefore, with the development of information, artificial intelligence has been widely used, and Internet technology has also improved accordingly. Enterprises are increasingly relying on artificial intelligence in production work

1.2 Overview of artificial intelligence technology

With the continuous progress and development of computer science, artificial intelligence technology has emerged. Today, artificial intelligence has been applied to many fields in our country, is closely related to people's lives, and has brought great help to social development. Artificial intelligence can explore human behavior and thinking, and simulate human consciousness and thinking through computers, greatly improving the intelligent behavior of computer equipment to achieve deep learning and logical thinking capabilities. The simulation of human consciousness and thinking by artificial intelligence technology requires the collection and transmission of human information data through computers, and certain identification of this data. Finally, intelligent analysis and processing of the problem is carried out to obtain the results and perform simple tasks on behalf of humans. Mental work.

2. Current application status of intelligent technology in electronic engineering automation control

2.1 Intelligent technology has limited application in electronic engineering automation control

Intelligent technology is mainly used to diagnose faults in current automation control, and has functions such as partial

optimization of electrical products and control protection boxes. However, its role in diagnosing faults and optimizing electrical products has not reached expectations, and it is not as smooth as expected. Failures often occur, and its optimization of electrical products is often unsatisfactory. A qualified intelligent system requires a complete database for support. However, my country's current electronic engineering automation intelligent technology is only based on past technical experience as technical support. However, in the diagnosis of electronic systems and the optimization of electronic products, intelligent technology cannot Problem diagnosis in response to emergencies and the inability to update data in a timely manner resulted in lagging and unsatisfactory optimization of electrical products.

2.2 Intelligent technology lacks sustainable innovation

Compared with the development of foreign countries, my country's intelligent technology is relatively backward, which makes the application of electronic engineering automation control technology significantly different from foreign countries. The main factors causing this result are insufficient capital investment, loss of professional talents and foreign technical barriers. These three aspects restrict the development and application of intelligent technology in our country, resulting in our country's electronic engineering automation intelligent technology always being at the mid-to-low end. level. The lack of continuous innovation in the application field of intelligent technology has led to shortcomings in the intelligent technology of electronic engineering and the inability to be optimized in time, which has seriously restricted the development speed of electronic engineering.

3. Research on the application of artificial intelligence technology in electronic engineering

3.1 Application in electronic control and automation

In applications, how to replace artificial operation with artificial intelligence technology is a major challenge. Because in terms of technical or information processing, there are differences between artificial intelligence technology and artificial operations. First of all, technically, artificial operation focuses on the practice of software, hardware, and automatic control platforms. Artificial intelligence technology focuses on how to process information processing, so that the software and hardware are organically combined and the information obtained is more accurate. In addition, artificial intelligence technology fills the shortcomings of traditional artificial operations in software design, making methods and methods more flexible, and software design no longer follows the previous dynamic equation.

For example, in the factory, you can judge the problems in production through the response time of the equipment, which makes production more intelligent. The process of achieving intelligent production is inseparable from technology. Technology mainly includes expert control system technology and comprehensive intelligent control technology. Expert control system technology contains the lessons and accumulated lessons of various experts in practical life and in the production summary. It has the multi-adaptability of the system in order to adapt to the changeable production environment, which can help people solve the encounters in actual production. The problem. There are many benefits to the introduction of this technology. On the one hand, when problems are avoided, the experts cannot solve it in time. On the other hand, the production efficiency is improved. When encountering problems, experts do not have to do it by themselves. Question, thereby optimizing production. In addition, comprehensive intelligent control technology fully considers production efficiency and operational difficulty, formulate work plans and optimize functional modules according to the actual situation, saves the workflow, and achieves the final goal with as little work process as possible. Therefore, the organic combination of artificial intelligence technology and electronic engineering has transformed the inherent production method, making technology the main driving force for production.

3.2 Application in electronic information

The widespread application of artificial intelligence technology in life enables artificial intelligence technology to occupy an irreplaceable position in people's lives. The ability of artificial intelligence technology to process information is even more impossible to achieve previous technology. Therefore, more and more artificial intelligence technology will be used in information. At this stage, artificial intelligence technology uses its own self -learning ability to monitor information. For the automatic check -kill function for information that may be threatened, use various anti -killing software to maintain information security maintenance, improve your defense ability, and right, right? The information of your own information is encrypted to ensure the security of your information. Today's information is shared, and information on the Internet can be seen. This increases the

possibility of information leakage. The people on the Internet are complex and the security of information is not guaranteed. Therefore, when sharing network information in the past, pay attention to classification of information, and merge a type of information into a set of keywords to make the search method reasonable. And artificial intelligence technology perfectly solves this problem. The first one is Google. Google uses artificial intelligence technology to understand the user's psychology, meet the needs of users, and recommend a batch of things that users need. intelligent. Due to the impact of sharing concepts, resources on the Internet are open to all users and are not limited. Therefore, when downloading the required materials, users can obviously feel their master status.

3.3 Application of artificial intelligence in mechanical and electronic engineering cost management

The organic combination of artificial intelligence and mechanical electronic engineering should consider the cost of cost. The cost of mechanical electronic engineering in applications is higher. One of the purpose of introducing artificial intelligence is to reduce costs. Therefore, how to divide costs is also a step that cannot be ignored in the process of introducing artificial intelligence technology. The cost is mainly divided into processing costs and product costs. The cost of mechanical processing refers to the reduction of prices in order to seek production development, the profit of the business owner, and the total cost of employee expenditure. Whether the remaining expenses in production are included in the other two aspects. On the one hand, it can enter the cost of processing products of the enterprise, but it must be under the premise that additional costs must be incurred in actual production. For example, the cost of machine failure. On the other hand, there is no direct relationship with product production in actual production. This part cannot be counted into the cost. In addition, the cost generated by the collective activity of enterprises is also included in the cost, which is part of the cost of mechanical processing products. It is worth noting that when the product is sold, the cost of the venue and the salary of the sales staff will also be incurred. The cost of this series is also included in the cost of mechanical processing products. Therefore, how to reduce costs on the basis of ensuring the original profit after introducing artificial intelligence technology is one of the current problems and the focus of the next work.

Conclusion:

In summary, the development time of artificial intelligence is short and the development speed is relatively fast. Therefore, the artificial intelligence technology lacks its stability. Most of its functions are still in the research and development stage, so it has not been widely popularized. The popularization and development of artificial intelligence is an inevitable trend in the progress of human society. In order to better spread and develop artificial intelligence, electronic engineering actively assumes the role of theoretical simulation and practical support for artificial intelligence technology. The application of intelligent technology in electronic engineering promotes mutual benefit and win-win results between electronic engineering and artificial intelligence technology.

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