

Research on the Application of Intelligent Technology in Electronic Engineering

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Abstract

In recent years, with the rapid development of science and technology in China, electronic engineering gradually develops towards automation and intelligent direction, and intelligent technology plays a higher role in promoting the development of electronic engineering. The application of intelligent technology to electronic engineering can not only improve the automatic operation ability of electronic engineering, but also realize the effective allocation of existing resources, so that the production efficiency of enterprises can be effectively improved. In order to give full play to the application value of intelligent technology in electronic engineering, this paper analyzes the application of intelligent technology in electronic engineering, hoping to provide effective reference for the development of electronic engineering technology.

Keywords

Electronic Engineering; Intelligent Technology; Electronic Technology.

1. Introduction

With the wide application of intelligent technology in electronic engineering, intelligent technology has made great progress and breakthrough. As an important content in the field of information technology, the application of intelligent technology in electronic engineering can change the existing methods. Electronic engineering complex operating system can reduce labor costs, especially through the realization of automation can reduce labor costs, can effectively improve the quality of products, products can quickly occupy the market at low cost, for changing production technology and economic development is very important. This article first introduces the current intelligent application in electronic engineering at present stage, and then analyzes why the use of intelligence in electronic engineering technology, as well as for electronic engineering, what are the advantages of intelligent technology, finally summarizes the intelligent technology in the application and development of electronic engineering, want to be able to cause the attention of relevant personnel of electronic engineering, Attach importance to intelligent technology, strengthen the research of intelligent technology constantly improve the level of intelligent technology, promote the development of intelligent technology in electronic engineering, and then promote the development of electronic engineering, promote the sustainable development of China's economy and society.

2. Overview of Intelligent Technology

As China's social development gradually enters a new period, the development speed of all walks of life is significantly accelerated, people gradually realize the importance of intelligent technology, and the technology is widely used in many social fields, promoting the intelligent technology gradually from a single technical achievement into real productivity. Intelligent technology is the inevitable outcome of the combination of computer control technology and Internet information technology. It integrates the advantages of computer technology and network information technology and can process a large amount of data information accurately and efficiently in a short time. The application

of intelligent technology in electronic engineering needs the help of network technology and information technology. Intelligent technology can be used for in-depth analysis and processing of all kinds of engineering data, effectively reduce manual pressure, greatly improve work efficiency.

3. Analysis of Application Advantage of Intelligent Technology in Electronic Engineering

3.1 It Can Improve the Stability of Automatic Control and Intelligent Control

Traditional electronic engineering is limited by technology, in order to achieve the effect of automatic control, it is necessary to use the manual set operation model, the whole model design process has a large labor cost, and vulnerable to the adverse impact of various factors, it is difficult to ensure the efficiency and stability of system automation control. But the application of intelligent technology to electronic engineering can be combined with other electronic products to optimize the operation model, reduce the influence of various factors on automatic control, so that the stability of automatic control system is effectively improved.

3.2 Ensure the Stability of Engineering Systems

Traditional electronic engineering generally adopts control algorithm, while intelligent technology can be combined with the development of electronic engineering technology dynamic adjustment, develop appropriate development strategy, so as to effectively improve the technical production efficiency, make the engineering production link more unified. As the coverage of electronic engineering continues to increase, the structure of electronic engineering becomes more complex, and it is necessary to make full use of intelligent technology to adjust, so that the stability of engineering system can be effectively guaranteed.

3.3 Advantages of Enhanced Electrical Engineering Uniformity

With the further development of electronic engineering, its overall structure becomes more and more complex, leading to its corresponding control methods gradually can not meet the needs of control electronic engineering. In view of this problem, some enterprises put forward an improvement plan, which is to combine a variety of control technologies, so as to improve the level of electronic engineering control operations. However, the practice has proved that although the improved method can achieve certain results, the electronic engineering can not achieve the overall unification because of the failure of effective coordination between different control technologies. The introduction of intelligent technology can effectively realize the coordination between various control technologies, and then solve the problem of unity of electronic engineering.

3.4 The Advantages of Improving the Efficiency of Electronic Engineering Operations

The introduction of intelligent technology into the field of electronic engineering can not only ensure the stability and coordination of electronic engineering automation control, but also improve the comprehensive efficiency of engineering operations to a certain extent. With the help of the electronic engineering intelligent system, the relevant data can be comprehensively analyzed before the formal start of the operation, and the intelligent distribution can be carried out in an appropriate way to maximize the efficiency of each link of the electronic engineering operation.

3.5 Advantages of Simplified Engineering Design

The application of intelligent technology in electronic engineering can effectively simplify the engineering design. In the application process of intelligent control system, it can effectively avoid the negative impact caused by human operation, thus simplifying the later design work procedures, reducing the difficulty, and finally achieve the goal of humanized control. In the operation of intelligent technology, the interference factors are relatively few, and there is basically no threat to the existing design, which improves the comprehensive operation efficiency of electronic engineering to a certain extent.

4. The Advantages of Applying Intelligent Technology to Electronic Engineering

4.1 Can Simplify the Design Process

In electronic engineering, the principle of traditional automatic control is to take model laboratory and application as the foundation, so as to control electronic engineering automatically. This mode of operation for electronic engineering design requirements are often relatively high, in the process of model making, high requirements for precision, only a high technical level can meet the actual needs. And, in the process of electronic engineering design, if there is a problem in the design of a model program, it will cause a great impact on the normal implementation of automatic control, and even may lead to the use of electronic engineering failure. Through analysis, it is also easy to find that the disadvantages of traditional automatic control are obvious, and it is difficult to meet the actual needs of the development of modern electronic engineering. The application of intelligent technology to electronic engineering design can well change the problems existing in electronic engineering model design. Intelligent control technology does not need to make special models, nor will it affect electronic engineering production, and can simplify the electronic engineering design process.

4.2 The Application of Intelligent Technology Can Reduce the Difficulty of Operation

In the past, electronic engineering management operations mainly involve management personnel operating related equipment and systems. In this case, the requirements for management personnel's own work experience and professional knowledge are relatively high. In the production of electronic engineering, if the difficulty is relatively high, many managers can not timely deal with and solve these problems, especially when the sudden system failure of electronic engineering occurs, if the managers can not timely solve the problem, it will cause a great impact on the efficiency and quality of electronic engineering production. If the intelligent technology can be reasonably applied to electronic engineering, it can be operated centrally through a systematic operation interface, and managers can also use the interface to operate the whole system uniformly. In this case, the difficulty of the electronic engineering operating system will also be significantly reduced. When the management personnel operate, the probability of error will be relatively small, and the system failure caused by human factors can be avoided.

4.3 Can Effectively Improve Work Efficiency

Electronic engineering production, operation of professional stronger, so, in the management of electronic engineering, has a high technical requirements for electronic engineering management, and management of the process is more complex, electronic engineering management tend to be inefficient, electronic engineering management practice, both in quality management and schedule management needed data as a support, Accuracy and completeness of the data will directly affect the actual level of electronic engineering management, previous electronic engineering management, data collection and analysis of data, usually need to be artificial, this will not only give electronic engineering management efficiency, also easy to data distortion, lead to serious deviation management work. Intelligent technology itself has strong data integration and data analysis ability, which can well analyze and integrate various data without the need to carry out the work by manual means. In this case, the accuracy and authenticity of data are relatively high. It is of great significance to improve the efficiency of electronic engineering to manage electronic engineering with intelligent technology.

4.4 Can Make Electronic Engineering Management More Stable

In the past, electronic engineering management, often through manual operation, although with the development of technology, some parts have been automated, but part of the realization of automation, also need to be through the management of instructions to operate. If the operation of the management personnel is not standardized enough or the operation error occurs, then the operation of electronic engineering is prone to various faults, and the stability of electronic engineering is not

guaranteed. Through intelligent technology to do a good job in electronic engineering management, intelligent technology can be used to automate the analysis of data, through the imitation of manual operation, through the analysis and processing of relevant data, and then the operation of the operation instructions, to avoid the error of operation, so that the entire electronic engineering operation can be more stable.

5. The Application of Intelligent Technology in Electronic Engineering

The application of intelligent technology to electronic engineering, its role is very important, through the application of related hardware facilities and software, can be a good solution to the problems existing in traditional technology, effectively improve the level of intelligent electronic engineering. At present, the application of intelligent technology in electronic engineering is mainly reflected in the following points.

5.1 Effective Monitoring of Problems In Electronic Engineering

In the operation of electronic engineering system, it is easy to appear various problems due to the influence of influencing factors, which will also hinder the normal operation of electronic engineering and production work. The rational application of intelligent technology can effectively monitor various problems existing in electronic engineering. Specifically, in electronic engineering, the application of intelligent technology can change the way of manual inspection in the past and monitor the whole system in real time. Traditional electronic engineering information automation level is often relatively low, in this case, often need to be managed and monitored by manual means, which leads to a lot of time can not find the existing system failure, both the quality and efficiency of management are relatively low. The application of intelligent technology, according to the actual needs of electronic engineering to carry out special system construction, so as to better monitor and manage electronic engineering system. At present, expert system, logic system and neural network system are widely used. Through these systems, the staff can find the faults of the electronic engineering system in time, and further deal with them, so as to ensure the normal and safe operation of the electronic engineering.

5.2 Application of Intelligent Technology in Intelligent Control

In order to better play the role of intelligent technology, improve the efficiency of electronic engineering operation. At the time of application, the staff need to electrical engineering and electronic control application better together, so as to realize the remote electronic project, automation and unmanned, to better optimize the allocation of various resources, so as to better implement for electronic engineering foundation, applying intelligent technology to better into the electrical engineering. And, the combination of automation technology and electronic engineering, in line with the implementation of modern technology development needs, the application of intelligent technology, but also from the overall point of view of better allocation and use of related resources.

5.3 Application of Intelligent Technology in Accurate Project Schedule Management

Electronic engineering work, main is to use a few continues the link to each other, even in the implementation of the different links, progress has also need to connect, to avoid to cause the whole project is larger, the influence of applying intelligent technology to come in, the relevant staff accurately at various stages of the management of electronic engineering, According to the relevant needs of different stages of electronic engineering to develop a perfect scheme, so as to carry out fine management of the entire electronic engineering. In addition, with the application of intelligent technology, the staff can also effectively learn from some previous work experience of electronic engineering, analyze and study the difficulties and key points of management work, and ensure the integrity of the implementation plan. The application of intelligent technology, the staff can ensure the scientific and reasonable planning in advance, the whole process of control of the entire electronic engineering, for those often appear influential factors, the relevant staff can also carry out preventive

measures. In addition, the application of intelligent technology can also accurately analyze electronic engineering data, so that the staff can better control the progress of the whole project.

5.4 The Application of Intelligent Technology Can Optimize the Design form

In the past, the application of intelligent operation technology has been affected by many factors. If it is applied to electronic engineering, the design is often not reasonable or the compliance rate is low, which will also have a great impact on the design form of electronic engineering. With the continuous improvement of intelligent technology, it can be used in electronic engineering to improve the previous imperfections, so as to better meet the overall requirements of electronic engineering design form. For example, in electronic engineering design, the relevant staff can use CAD drawing and genetic algorithm to effectively analyze the form of electronic engineering design, and summarize the trend of electronic engineering design according to the actual situation, reduce the time needed for design, and ensure the feasibility and scientific nature of the scheme itself.

5.5 Application of Intelligent Technology in System Fault Diagnosis

With the development of social science and technology, electronic engineering system has been widely used in various industries, in the process of application, failure is inevitable, detection and maintenance for the role of electronic engineering system is also very important, how to make rapid diagnosis of electronic engineering, reduce the probability of failure, Improving the efficiency of troubleshooting is very important for the better development of electronic engineering. After the application of artificial intelligence technology, it can well reduce the frequency of failure, and make better use of the role of electronic engineering. If electronic engineering system has intelligent technology and equipment, can not only improve the work efficiency, and can also comprehensive monitoring electrical engineering work for possible fault can be found in a timely manner, can even through information technology to the electronic engineering system possible fault forecast ahead of time, do a good job in running the analysis of the data and index, Lay the foundation for better operation of electronic engineering. Especially with the development and progress of intelligent technology, the application of intelligent technology to electronic engineering, but also according to the failure of the plan set, in the event of failure will quickly start the plan, to ensure that the project will not be affected by the failure, and even to their own fault processing and elimination.

6. Development Trend of Intelligent Technology Application in Electronic Engineering

6.1 Performance Trends

With the development of social science and technology, people are increasingly aware of the advantages of the use of intelligent technology, its development prospects are very good, especially with the application of intelligent technology in electronic engineering, the accuracy and speed of electronic engineering itself has been significantly improved. In order to better play the role of intelligent technology, it is necessary to apply intelligent technology in the process of electronic engineering control, not only to meet the needs of coverage and operation, but also to improve the electrical automation digital control system, so as to better meet the actual needs of users.

6.2 Intelligent Technology Function Development

By analyzing the application of current intelligent technology in electronic engineering, it can be found that there is still unity in function, which requires relevant engineers to develop the function of intelligent technology. The research content mainly includes the following two points:

(1) To meet the needs of computer system visualization operation, ensure that each user can intuitively and effectively analyze and judge the system content and system data, and can carry out information transmission through images and texts.

(2) PLC control system functions will be added to the electronic engineering, the application of this module can be very good to solve those can not timely equipment failure, and can carry out online monitoring and debugging, can make the operation of the whole system more reliable.

6.3 Development Trend of Intelligent Technology Architecture

For intelligent technology, integration is a very important trend in the development of its architecture. By analyzing the actual situation, it can be found that high-performance CPU application can improve the quality and efficiency of automation control software. When storing files, the purpose is also to better use the relevant files. For this part, and to put forward new requirements, requirements for file transfer, well need to make use of information network for data transfer, the demand for network transmission speed is high, and using the Internet for file transfer, also need to be temporarily stored in a certain location, such as email management software. First of all, it is necessary to do a good job of document identification, rescan and verify electronic documents to ensure their validity, authenticity and integrity. Secondly, the need to do a good job of archiving, the use of identification according to the source of the document to the allocation of the document number, and the determination of the confidentiality level of the document and the retention time of the document. When archiving, attention should be paid to the storage of original documents, and there should be a special platform to read electronic accounting documents according to relevant requirements, and the purpose of archiving is to ensure its reliability, integrity and availability.

7. Conclusion

Intelligent technology plays a very important role in the development of electronic engineering industry. In the new era, in order to realize the long-term development of electronic engineering industry, it is necessary to actively use various intelligent technologies. Compared with traditional technology, intelligent technology has the advantages of simplifying engineering design and improving operation efficiency. At present, the application of intelligent technology in the field of electronic engineering in China includes system fault diagnosis, product design optimization and so on. On the whole, the application effect of intelligent technology in electronic engineering is not high, and there are still many problems in the practical application process. Compared with foreign developed countries, the development of electronic engineering intelligence technology in China is relatively backward. With the continuous updating and improvement of this technology, its application scope in electronic engineering will be further expanded and its application level will be effectively enhanced. In electronic engineering, the application of intelligent technology plays an important role in the whole large enterprise. The most important challenge today is the application of smart technologies in order to achieve better development and create better economic and social benefits. In electronic engineering, with more and more kinds of intelligent technology and higher technical level, information technology is also developed. Electronic engineering technology is to combine the development of intelligent technology with the application of computer technology, in order to make full use of the technology to analyze and summarize the actual engineering technology, and ultimately promote people's life and make contributions to all aspects of people's life.

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