

Construction of PLC Information Sharing Platform based on Power Electronics Technology

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Abstract: In recent years, with the rapid development of power electronics technology, new devices and technologies are emerging, and are widely applied in various industries. This paper analyzes the related data of the PLC information sharing platform, and explores the construction of the PLC information sharing platform based on power electronics technology. By comparing with the traditional information platform, it verifies the fluency of the PLC information sharing platform based on electronic power technology.

Keywords: Power electronics technology; PLC information sharing; Platform; Construction

1. Introduction

With the continuous progress of the social economy and the scientific level, more information sharing platform has been established, and their unique advantages have been exerted, especially the PLC information sharing platform based on electronic power technology, which is more responsive to the needs of the times. In recent years, how to make better use of advanced electronic technology to complete the information sharing platform is still the key point for relevant workers to study^[1]. Through the continuous updating and improvement of the platform, it will play a certain role in promoting PLC information sharing in China.

2. Analysis of Related Technologies for the Construction of PLC Information Sharing Platform

According to the demand for information in today's society, it can be found that building the PLC information sharing platform is an inevitable trend of development. The platform has a variety of features that allow for further processing of information. The application of the PLC information sharing platform is very extensive. When the information sharing platform is used in the enterprise management, all kinds of information can be integrated, and the relevant managers can get the information that they want from the platform, so as to guide the operation and development of the enterprise. The

information sharing platform makes enterprise management more targeted and easier. If the information is fully grasped, managers can focus on more important tasks^[2]. At the same time, the information in the PLC sharing platform needs the characteristics of real time to form a complete data transmission system, improve the response speed of the information sharing platform, strengthen the connection and interaction of various constitutions, form a unified whole, and enhance the ability of coordination and cooperation. The PLC information sharing platform, which combines power electronics technology, has many characteristics, including wide coverage, complex system, the inability to use traditional computing and special analysis method in the process of construction. It is necessary to make full use of advanced power electronics to build virtual models. It is necessary to make full use of advanced power electronics technology to build the information sharing platform through the establishment of virtual model and allow the PLC sharing platform to be used more smoothly. The establishment of a virtual model in the platform makes information sharing flexible. The use of power electronics technology that meets the needs of the development of the PLC information sharing platforms maximizes the sharing of resources. Generally speaking, information in a shared platform can be classified into confidential information, selective shared information, and fully shared information. The specific content is shown in Table 1.

Table 1. Information Classification Table

Serial number	Information category	Sharing information	Information content
1	Confidential information	Not sharing	Core technology
2	Selective sharing information	Partial sharing	Important information
3	All sharing	All sharing	Storage information

3. Exploring the Construction of PLC Information Sharing Platform based on Power Electronics Technology

The development of electronic power technology is an inevitable trend in the new era. In recent years, the society has attached great importance to the cultivation of electronic power technicians. Under this environment, the electronic power technology has been constantly updated and developed, and has been applied in more aspects. In order to make our country's information sharing platform more perfect, we have formulated corresponding plans for the training and education of electronic power technicians. Expanding from the most basic information platform construction, the electronic power technology can be better applied to the PLC information sharing platform and enhance the security of China's information sharing platform^[3]. It is necessary to grasp the application direction and development space of electronic power technology and formulate practical and feasible progress goals. At present, there are still many deficiencies in the development of electronic power technology in China. For example, many electronic power technology platforms are hindered during the construction process, which are limited by the setting of the construction scheme or the scope of the content of the electronic power platform. Under this circumstance, related workers could not really apply the electronic power technology to the construction of the information sharing platform, resulting in many technical deficiencies in the platform. For the missing part of the technology, relevant workers need to continuously improve their capabilities and improve it through various means^[4]. The construction of the platform requires practical solutions and objectives. If there is no plan as a theoretical basis and target as a guide in the construction of electronic power technology, it is difficult to play a corresponding role. Electronic power technology is very complex and contains a wide range of knowledge. In the process of building the platform, it is difficult to get the expected information sharing effect if it is only to pursue the increase of technical content, but cannot understand and apply the electronic power technology. The application of electronic power technology in the information sharing platform plays a vital role in making up for the deficiencies of traditional information sharing platforms. The relationship between electronic power technology and the PLC information sharing platform are mutual influence, mutual promotion and complementary advantages. In the information sharing platform, electronic power application methods have been improved, and advanced technologies have been used to share information. The construction process can be more gradual, shallower and deeper, and the information sharing effect can be im-

proved. The application of electronic power technology by the relevant technical personnel is more specific. The PLC information sharing platform is constructed from multiple information, forming a dense information network, making information reading more convenient and faster, and deepening the understanding of electronic power technology. Therefore, how to make the electronic power technology and the PLC information sharing platform progress together requires the joint efforts of the entire society. The electronic power technology used in the PLC information sharing platform includes information acquisition technology, platform control technology, etc. The electronic power technology used in the PLC information sharing platform has information collection technology, platform control technology and so on. When searching information, it uses sensors to lock the information position that you want to find, and outputs the information in the form of signal, and complete the sharing in the platform. The information sharing process of the platform is shown in Figure 1.

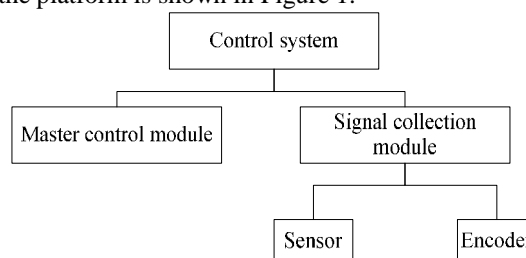


Figure 1. Software flow chart of the PLC information sharing platform based on power electronics technology

During the operation of the control system, the platform should be detected continuously and the corresponding alarm system should be installed. When the information sharing platform fails, the alarm should be made in time and the PLC sensor should be used. When the alarm system starts, it triggers the PLC sensor and drives the electronic power equipment to restore the information sharing platform to the original operating mode. PLC sensors can measure the state of information sharing and provide timely feedback and improvement. The application of electronic power control technology in the information sharing platform has achieved good results and has also received extensive attention from related industries. The use of PCL control technology is inseparable from the role of ipv6. In the information sharing platform, there will often be a shortage of IP. The PLC control technology effectively alleviates this problem and makes the information sharing platform use electronic power technology better. In the past, IPV5 was often used in PLC controllers. Compared with IPv6, IPV5 showed many deficiencies in terms of IP address length and intelligent control. The use of IPv6 makes The PLC information sharing platform more perfect. But compared with the traditional

IP address, the IPv6 address is longer, and the maximum value of each field is 15972, and the specific parameter is 315.464.522.850.145.375.375.809, 982.877, 789. However, the use of IPv6 will also bring a series of problems, which will cause congestion in information transmission and influence on the real-time performance of information platform. Based on the information sharing platform of electronic power technology, we need to optimize this problem and take a certain way to ensure the application of electronic power and PLC technology. The formation of a new mode of information sharing platform needs the

establishment of a virtual model and needs repeated experiments to find the most suitable platform operation mode.

4. Experimental Testing and Data Analysis

Through the comparison of the PLC information sharing platform based on power electronics technology with the traditional information sharing platform, the following data is obtained, as shown in Table 2.

Table 2. Experimental results

Category	Information Sharing Platform Based on Power Electronics Technology	Traditional information sharing platform
Effectiveness	High	Low
Contents	Complicated	Simple
Quantity	Many	Little

Through the experimental data, it can be concluded that the PLC sharing platform based on the electronic power technology is superior to the traditional information sharing platform in terms of efficiency, content, and quantity. Today's society needs the circulation and sharing of information. However, achieving information sharing is not a simple task and involves all aspects of electronic power technology. Therefore, in order to the normal operation of the information sharing platform, it is necessary to update the traditional technology, to abandon the deficiencies, and to use advanced electronic power technologies to make the information sharing platform more perfect^[5]. Platform control personnel and electronic power technicians need to coordinate and cooperate with each other to build a complete information sharing platform. The PLC information sharing platform based on electronic power technology has been widely used in all sectors of society. Especially in school education and corporate management, it enables educators and business managers to fully grasp information and achieve expected results. In fact, the construction of PLC information sharing platform based on electronic power technology is not static. It has a specific construction and operation mode under a specific environment. The flexible use of electronic power technology according to user needs and the fastest flow of information to achieve the sharing and sharing, can meet the requirements of many users for personalization. In addition, in order to complete the integration of various types of information, an information base can be established to ensure the comprehensiveness of the information. In addition, in order to complete the integration of various types of information, an information base can be established to ensure the comprehensiveness of the information. Some confidential information should be given priority protection. Information transmission technology based on electronic power technology enables PLC information sharing platform to run more smoothly.

5. Conclusion

The development of science and technology and the progress of society have put forward higher requirements for the PLC information sharing platform based on electronic power technology, which has enabled the PLC information sharing platform to find a broader development prospect in the course of continuous improvement. The PLC information sharing platform plays an important role in today's society. Therefore, how to better play the advantages of information sharing platform is of great significance. At present, China's PLC control technology has been replaced by third times, and it also needs to apply advanced electronic power technology to realize information sharing in more aspects[6]. For example, there is no need for manual meter reading operations and emergency rescue information sharing which are initiatives that benefit the people. The information sharing platform based on electronic power technology is constantly being improved and will certainly play a greater role.

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