Study on the Application Characteristics and Future Development Situation of Electronic Information Technology

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Abstract. At present, under the macro background of intelligence and networking, electronic information technology has been widely used in many industries. The key technical advantage of electronic information technology is to automatically control the whole operating system, so as to ensure that system operators can adjust the system operation process by means of intelligent automatic system control devices, thus achieving the effect of correcting system operation and operation errors in time and saving technical cost resources in automatic system adjustment and control. When researching and exploring electronic information technology, the basic idea is to combine the practical application characteristics of electronic information technology and improve the means of developing electronic information technology at the present stage.

1. Introduction
Electronic information technology is a very important technical means of network intelligence, and its basic technical features are automatic control and electronic information operation platform, so as to achieve the goal of producing specific products or providing services in specific fields. Under the present situation, the electronic information technology should focus on network digitization technology, miniaturized data information processing technology and integrated processing technology, which fully demonstrates the necessity of integrating electronic information technology into production and life practice. If electronic information technology is to achieve stable and long-term technological transformation and development, relevant departments and technical personnel of enterprises should invest costs and resources in order to dig deep into the innovative development potential of electronic information technology.

2. Basic Characteristics and Meaning of Electronic Information Technology

2.1. Meaning of electronic information technology
Electronic information technology is an important part of modern information technology. The meaning of electronic information technology is to use computer software platform to control the system operation process, and rely on modern electronic information technology to save the system resource cost, so as to achieve the best system operation energy saving benefits and system security and stability benefits. Fundamentally speaking, the essence of electronic information technology is to accurately implement system operation control, and create good system operation control effect according to the aim and idea of precision and automation.
2.2. Basic characteristics of electronic information technology
If electronic information technology is to be applied to specific production practice fields, the key premise is to accurately grasp the connotation and characteristics of electronic information technology. From the perspective of technical characteristics, the basic characteristics of electronic information technology focus on intelligence, automation and real-time. When operating and controlling the information system, technicians can ensure accurate and real-time feedback data of the system operation state by implementing specific operations on the computer system, reduce the resource cost in the system operation control and save the system operation time.

3. Main Application Characteristics of Electronic Information Technology

3.1. Implementation platform relying on network digitalization
Networking and digitalization constitute the most obvious characteristics of electronic information technology, which objectively reflects the necessity of electronic information technology running through the modern communication process[1]. Affected by the new communication control mode of networking and digitalization, the specific operators of each network terminal can obtain the network transmission data by real-time means, thus achieving a good implementation effect of saving the network communication cost to the maximum extent. Network and digital technology allow real-time data resources transmission between different system terminals, which is beneficial to fully share network information resources and prevent the situation of information islands[2].

3.2. Advantages of fast and efficient data information processing
Modern production enterprises and network system users all hope to use faster ways to transmit data resources and share existing network data information. On this basis, fast and efficient electronic information technology is being widely popularized. Electronic information means can ensure that users of network terminals receive data feedback in the shortest time, thus eliminating the delay in the process of data transmission and transmission. For modern production enterprises, as long as they establish a network intelligent database, they can achieve the goal of fast storage of enterprise data resources, and fully ensure the security and integrity of enterprise data resources [3].

3.3. Miniaturization and integration of equipment and facilities
The whole process of network data transmission and sharing must rely on miniaturized devices and equipment systems, which determines that technicians should use miniature sensors to control the operation of the system and improve the existing implementation mode of miniaturized and integrated electronic information technology. For example, in recent years, millimeter-scale intelligent and automatic sensors have been popularized and applied in many production enterprises. The root cause lies in the fact that millimeter-scale intelligent sensors can achieve the effect of receiving and transmitting data resources in real time, thus meeting the needs of modern enterprises for frequently processing various production data information.

Therefore, it can be inferred that electronic information technology is not limited to specific fields and disciplines, but covers very extensive and complex intelligent system control elements [4]. At present, under the new background that intelligent platform is rapidly expanded and applied, electronic information technology has been recognized and favored by enterprises in many fields. If enterprise technicians and related industrial departments can use electronic information technology correctly, it will be very beneficial to optimize the comprehensive technical benefits of modern production enterprises. In addition, electronic information technology should also be fully applied to the intelligent network communication process, so as to ensure that less network communication cost resources are used to obtain the best practical benefit of communication system operation control.
4. Future development trend of Electronic Information Technology

The fundamental premise for the smooth implementation of electronic information technology is to establish a network automation control platform, transmit and receive platform data information in an automated way, and perform necessary transformation operations on the network data information content received in real time. However, under the current circumstances, the overall development level of electronic information technology still needs to be improved, specifically involving the following innovative evolution and development trends of electronic information technology:

4.1. Full realization of the triple play target

From the perspective of intelligent communication network expansion and construction process, the key technical characteristic of electronic information technology is to promote triple play [5]. Therefore, in the process of perfecting the construction of intelligent communication network in the future, relevant departments must pay more attention to promoting the convergence of the three networks, aiming at closely integrating modern communication network systems with different functions, expanding the coverage of network transmission data, improving the data transmission speed and eliminating the phenomenon of information delay transmission.

Cable TV network, telecommunication network and computer network constitute the basic elements of triple play, and the above three types of intelligent communication transmission networks should show excellent compatibility and real-time. Under the present situation that the intelligent communication network has been built in an all-round way, the overall technical development trend of triple play has been more remarkable. If the aim of triple play is to be realized, it must be based on the premise of the comprehensive popularization of IPV6 technology. In recent years, relevant departments are exploring the trend of triple play more deeply, aiming at expanding the scale of communication network integration construction from multiple angles and levels, and showing the unique technical advantages of triple play with rapidity and full coverage [6].

![Figure 1 Triple play mode](image_url)

4.2. Expand the application range of automatic regulation and control technology

The essence of automatic adjustment and control technology is to use artificial intelligence to implement a comprehensive system operation and control process, especially for industrial production systems. For most modern industrial production enterprises, automatic regulation and control system constitutes an indispensable core operation system of modern industrial production. On the premise of correct operation of automatic control system, enterprise technicians should be able to ensure lower industrial production operation cost and better industrial production control implementation efficiency, and
effectively ensure that all operation links of industrial production are placed within the scope of intelligent control.

In recent years, many modern industrial enterprises are actively introducing the automatic production operation control mode, relying on the automatic electronic information technology platform to control the production operation process of enterprises, and gradually improving and adjusting the existing automatic operation monitoring technology mode of industrial production enterprises. Therefore, the managers of modern enterprises should give strict training on professional skills to the production technicians of enterprises, fully ensure that the technical personnel of enterprises can skillfully and correctly use electronic information technology resources, reasonably save the cost of material resources of enterprises, and extend the safe service life of automatic production equipment of enterprises. At the same time, enterprise technicians must analyze the operation monitoring data of the automation system accurately, and comprehensively find out the potential safety hazards and risk factors in the production process of the enterprise. If the electronic information system wants to achieve the goal of stable system operation control and maintain the safe operation of the system for a long time, it must rely on the production technicians of enterprises to implement strict and accurate system operation monitoring.

4.3. Optimize primary and secondary systems
Primary and secondary systems together constitute the complete structure of modern communication engineering system. If the primary and secondary systems want to transmit and receive data control instructions in real time, they must rely on the pre-designed communication interface and communication protocol. At present, with the important support of electronic information technology, the primary and secondary information transmission system has been optimized and adjusted. System control technicians comprehensively optimize and improve the multiple communication ports necessary for transmitting network data, which effectively ensures that the network data transmission communication protocol shared by two different levels of systems can play its value.

When transmitting network data, optimizing primary and secondary systems can fully meet the authenticity and comprehensiveness of communication data transmission, and use real-time control ways and ideas to operate different levels of system parts. The electronic information technology platform with multi-port intercommunication function can ensure the whole communication transmission process covering the primary and secondary systems, and prevent missing communication data of the primary and secondary systems.

4.4. Exploring nanoscale electronic information technology
At present, many integrated circuit and other microelectronic product manufacturers are deeply exploring the realization of nanoscale electronic information technology, the key of which involves the subtle production and operation process of integrated circuit boards. Compared with the original implementation mode of electronic information technology, the manufacturing process of integrated circuit products based on nanoscale control technology can achieve the goal of accuracy, and effectively optimize the use of product manufacturing resources.

Specifically, in the process of manufacturing and processing circuit board components, enterprise technicians have been able to use nanoscale new technical means for processing, thus reducing the risk of human operation errors in the operation control of integrated circuits. In practice in the future, the new intelligent production control technology mode at nanometer level will be optimized and transformed.

The following table shows the technological evolution and transformation development trend of electronic information technology in the future:

| Basic characteristics of electronic information technology | Network digitization | Fast and efficient | System miniaturization | Integration of operational control processes |
|-----------------------------------------------------------|----------------------|--------------------|------------------------|---------------------------------------------|

Table 1 Main characteristics of electronic information technology and its future development trend
5. Conclusion
Through analysis, it can be seen that electronic information technology has been able to penetrate and integrate into various practical fields, objectively exerting its important practical significance and value. Compared with the traditional method of manual system automation operation control, the electronic information technology control mode supported by network intelligent platform can achieve more stable and safe effects, and effectively reduce and save system control resources. In the practice of promoting technological transformation in the future, electronic information technology will tend to the application level of nanoscale technology, and improve and optimize the basic structure of automatic and intelligent control system comprehensively.

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