

Application of Electronic Information Engineering Technology in Intelligent Communication

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Abstract: With the development of the economy, the electronic information engineering technology of our country is also developing continuously, and has formed a complete system which has been widely used in all fields. As a kind of electronic information engineering technology, intelligent communication technology is also widely used in the field of communication. It can be applied on different occasions. Through the comparison and analysis of electronic information engineering technology and intelligent communication technology, it is found that electronic information engineering technology and intelligent communication technology promote and develop each other. Electronic information engineering technology plays an important role in the field of intelligent communication, and intelligent communication technology also promotes the development of Electronic information engineering technology.

1. Introduction

With the continuous development of science and technology, electronic information engineering technology has been widely used in various fields, which makes every profession of society have undergone earth-shaking changes.

2. Overview of electronic information engineering technology

2.1 Definition of electronic information engineering technology

Electronic information engineering technology is a subject that combines electronic technology with information technology to collect, transmit, process and store information through various electronic equipments and systems. Electronic information engineering technology plays a vital role in modern society, involving communication, computers, electronic equipment and other fields. The development of electronic information engineering technology has gone through many stages. The earliest electronic information engineering technology is mainly used in the field of communication, to achieve long-distance communication between people. With the development of computer technology, electronic information engineering technology is gradually applied to the field of computer, realizing large-scale data processing and computing capabilities. In recent years, with the rise of Internet of things and artificial intelligence, electronic information engineering technology has begun to involve the interconnection and intelligent processing of Internet of things equipment.

2.2 Characteristics of electronic information engineering technology

An important characteristic of electronic information engineering technology is its powerful storage function, which is widely used in data storage. In the current society, digitalization, networking and intelligentization have become the development trend of the future information society, Mass data needs to be stored efficiently. Electronic information engineering technology has many advantages in data storage. First, electronic information engineering technology provides a variety of storage media and devices at the hardware level. The traditional disk storage technology has developed to the stage of high density and large capacity, which can meet the need of large-scale data storage. At the same time, the emergence of the solid state hard disk (SSD) technology has also greatly accelerated the speed of data reading and writing, and improved storage

efficiency. In addition, the rise of cloud storage technology enables data storage to achieve a remote, distributed way, can easily store and share data. Second, electronic information engineering technology provides powerful data management and processing capabilities at the software level. Through various database management systems and data processing algorithms, a large number of data can be efficiently stored and retrieved.

3. Application significance of electronic information engineering technology in communication intelligence

3.1 Strengthening automatic scheduling and real-time monitoring functions

The application of electronic information engineering technology in communication intelligence is mainly embodied in strengthening automatic scheduling and real-time monitoring function. In traditional communication systems, scheduling and monitoring usually need manual operation, which is inefficient and prone to errors. The introduction of electronic information engineering technology can achieve automatic scheduling and real-time monitoring, improve the efficiency and reliability of communication systems. First of all, electronic information engineering technology can achieve automatic scheduling functions. In traditional communication systems, the allocation and scheduling of communication resources usually need manual intervention, which is prone to unreasonable scheduling or resource waste. The electronic information engineering technology can automatically dispatch and assign according to the real-time requirement and resource of communication system through intelligent algorithm and automation system. For example, the allocation of spectrum resources can be dynamically adjusted according to communication load to improve the utilization of communication systems. At the same time, the automation system can be used for fault detection and recovery to improve the reliability and stability of communication system. Secondly, electronic information engineering technology can achieve real-time monitoring function. In traditional communication systems, monitoring usually needs manual inspection or periodic inspection, so it is difficult to find problems and faults in time. But through the introduction of electronic information engineering technology, we can achieve real-time monitoring of communication systems. For example, communication equipment and signals can be monitored in real time through sensors and monitoring equipment to detect faults and anomalies in a timely manner.

3.2 Promoting the scheduling of intelligent voice channels

One of the applications of electronic information engineering technology in intelligent communication is to promote the scheduling of intelligent voice channels. With the rapid development of communication technology and the rise of intelligent, voice communication has become an indispensable part of people's lives and work. The application of electronic information engineering technology in intelligent voice channel scheduling can improve the efficiency and user experience of communication system. First, electronic information engineering technology can realize automatic scheduling of voice channel through intelligent scheduling algorithm and system. In traditional communication systems, the scheduling of voice channels usually needs manual operation, which leads to unstable call quality and resource waste. After the introduction of electronic information engineering technology, the intelligent scheduling algorithm can automatically allocate and schedule voice channels according to real-time load and user requirements. For example, the bandwidth allocation of voice channels can be dynamically adjusted according to communication traffic and signal quality to ensure call quality and resource efficiency. At the same time, the intelligent system can also be used to monitor and adjust the call quality in real time to improve the user's call experience. Second, electronic information engineering technology can realize the optimization and management of intelligent voice channel. In traditional communication systems, the management of voice channels usually needs manual intervention, and it is difficult to monitor and optimize the channels. By introducing electronic information engineering technology, intelligent management of voice channel can be realized. Through speech

recognition and speech analysis technology, the use of voice channels and the quality of real-time monitoring and analysis. At the same time, the load and optimization of the channel can be adjusted in real time by intelligent system to improve the call quality and resource utilization efficiency. In addition, we can analyze and forecast the usage and user demand of voice channel by data analysis technology, and provide decision support for channel planning and optimization[1].

4. Application of electronic information engineering technology in intelligent communication

4.1 Application of Electronic Information Engineering Technology in Information Transmission

First of all, electronic information engineering technology can achieve high efficiency of information transmission through high-speed data transmission and processing technology. In traditional communication systems, information is usually transmitted through traditional wired circuits or wireless signals. Transmission speed is slow and vulnerable to interference. With the introduction of electronic information engineering technology, high-speed information transmission can be realized by optical fiber communication, satellite communication and wireless communication. For example, optical fiber communication technology can be used to transmit information in the form of light to achieve high-speed data transmission. At the same time, through satellite communications and wireless communications technology, remote and mobile devices achieve information transmission. Through high-speed data transmission technology, we can greatly improve the efficiency of information transmission, to meet people's needs for real-time information. Secondly, electronic information engineering technology can realize the reliability of information transmission through information coding and decoding technology. In traditional communication systems, information transmission is usually vulnerable to signal interference and transmission errors, resulting in low reliability of information transmission. After the introduction of electronic information engineering technology, information can be encoded and decoded to achieve error correction and recovery of information. For example, error detection and correction coding techniques can be used to encode information to improve the reliability of information transmission. At the same time, the information can be modulated and demodulated by channel coding and modulation technology to improve the anti-jamming and anti-noise performance of information transmission.

4.2 Application of Electronic Information Engineering Technology in Information Security

First, electronic information engineering technology can control and manage the access of information through access control technology. In traditional communication systems, access to information is usually open and can be accessed and used by anyone. After the introduction of electronic information engineering technology, access control technology can be used to restrict and manage access to information. For example, authentication and privilege management can be implemented through authentication and privilege control technologies to ensure that only authorized users can access and use information. Through access control technology, we can effectively prevent the risk of illegal access and information leakage. Secondly, electronic information engineering technology can also realize the security monitoring and protection of information system through intrusion detection and defense technology. In traditional communication systems, the security of the communication network mainly depends on manual inspection and periodic inspection, which is easy to miss and delay. The introduction of electronic information engineering technology, through intrusion detection systems and firewalls and other technologies to achieve real-time monitoring and protection of communication networks. For example, intrusion detection systems can monitor and analyze communication networks in real time to detect and prevent potential intrusions and attacks. At the same time, the firewall technology can also be used for access control and security detection of communication networks to prevent illegal access and attacks.

5. Strengthening the application of electronic information engineering technology in intelligent communication

5.1 Focusing on the integration of electronic information engineering and communication technology

In order to strengthen the application of electronic information engineering technology in intelligent communication, we should pay attention to the integration of electronic information engineering and communication technology. Electronic information engineering technology and communication technology are interrelated, only the integration of the two can be better applied to the field of intelligent communication. Therefore, it is necessary to strengthen the interdisciplinary research of electronic information engineering and communication technology and promote the communication and cooperation between them. In the area of education and training, interdisciplinary courses and training programmes could be offered to train people with an integrated capacity in electronic information engineering and communications technology. At the same time, in research and development, we can organize interdisciplinary research team to carry out the integration of electronic information engineering technology and communication technology to promote innovation and application.

5.2 Absorption of professional technical personnel

In order to improve the application level of electronic information engineering technology in intelligent communication, enterprises need to fully consider the work ability of electronic information engineering technicians, especially their work attitude and work enthusiasm. In this process, enterprises can promote the professional ability of electronic information engineering technicians through "talent introduction" and "talent training" to provide a broader development space. The enterprise needs to introduce excellent electronic information engineering technicians into the enterprise, especially in the process of the expansion of the enterprise production scale. In this process, enterprises need to strengthen cooperation and exchange with relevant colleges and universities, for excellent electronic information engineering and technical personnel to provide a broader development space[2].

6. Conclusion

In recent years, with the improvement of the economic level, the research on electronic information engineering technology in China is gradually increasing, and improving its application effect in intelligent communication. In the future, we need to clarify the practical application of electronic information engineering technology, and deal with the existing problems in time, so that it can play a greater role in the field of intelligent communications. In addition, we also need to clarify the application of electronic information engineering technology in intelligent communications, and constantly strengthen the innovation and improvement of technology to better serve the field of intelligent communications. I believe that in the future development process, we can give full play to the role of electronic information engineering technology for the further development of China's communications industry to help.

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