Construction and Analysis of Intelligent Transportation Based on Computer Network Technology

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Abstract. With the continuous development of urbanization in China, urban traffic problems are gradually highlighted. In the future, intelligent transportation system will be the most important method to solve the demand of urban traffic. The realization of intelligent transportation system requires real-time perception and monitoring of road traffic conditions. Fortunately, with the continuous development of mobile communication, satellite positioning, Internet of Things, big data and other technologies, GNSS, RFID, microwave, geomagnetic, video and other acquisition methods have been widely used in information perception in the field of urban traffic. Based on the concept of intelligent transportation, this paper constructs an intelligent transportation system based on Internet network technology, which has a certain guiding significance for the construction of intelligent transportation under computer network technology.

Keywords: Computer Network, Intelligent Transportation, Network Technology

1. Introduction
With the rapid development of China's economy, China's various fields of technology has also made a relatively big breakthrough, especially the computer network technology, these technologies make our life more convenient and intelligent, for the development of our society has also made a great contribution [1]. Intelligence traffic is use a new generation of information technology in the field of transportation, travel, transportation to the public, traffic management and traffic network construction whole process control and service support, make the traffic system at the regional, urban and even greater range of time and space have connected, perception, analysis, control and prediction ability, such as use of cloud computing, artificial intelligence, Internet, mobile Internet and other related technology to complete the transportation process of industrial transformation and upgrading.
2. Concept dialysis of intelligent transportation

2.1. Intelligent transportation concept
The current intelligent transportation system is completely based on the combination of multiple information fields such as the Internet of Things, the Internet and the Internet of Vehicles. Meanwhile, as time goes by, the relationship among the three is constantly optimized. Intelligent transportation technology has strong technical characteristics, and can effectively improve the application of mobile Internet and Internet of Things technology [2]. At the same time, with the comprehensive advancement of intelligent transportation application, it provides a more perfect model for the development of 5G network technology. At the same time, in the specific process of 5G network application work, it can provide effective, high-definition and combined with 3D image technology and other services with large traffic demand, which is a good experimental basis for the development of 5G network technology. At the same time, 5G network technology also provides technical support for the operation of intelligent transportation and guarantees its normal application, which is a good process of complementing each other and jointly promoting development.

2.2. Significance of intelligent transportation construction based on internet technology
The analysis of the specific connotation of intelligent transportation refers to the effective combination of computing network system, Internet of Things, Internet of Vehicles and other technologies in the transportation industry, so as to truly construct its perfect transportation system [3]. In the collection of these technologies to optimize the current traffic network new communication, the final implementation of the overall management and control of the traffic network system; In this way, it can effectively analyze, manage and supervise the current traffic system to a certain extent. And based on the good operation of the information system, in order to effectively build the value points of transportation, to provide people with a more perfect transportation environment.

In the intelligent transportation system, it should have a certain expansibility application, and can restore its basic maintenance function effectively and quickly. The current traffic information technology is being continuously improved, and a complete operation mechanism has emerged. Especially with the advent of 5G network era, information between people and vehicles can be crossed and specific conditions of the current vehicle can be fed back, which makes the traffic field developing in a new direction. Due to the limited early traffic information control technology, from the past development history of intelligent transportation, the traditional traffic mode still has traces to follow, and has not been completely changed. When there are certain limitations and problems in information...
technology, it is a great opportunity and challenge for the progress of technology [4]. After the collaborative analysis of roads, vehicles and drivers, we can find that these traffic is traceable and can effectively realize the convenience and convenience of information.

In the current 5 g the advent of the era of network, great change have taken place in the intelligent transportation information integration, for example, for the current traffic running state of intensification of information collection and adjustment, can real time to the current operation of vehicles and pedestrians, co-ordinated management and supervision, based on mobile information make full use of the information, can achieve the intelligent information management [5]. Based on the current 5 g information network, based on the vehicle information data collection, it is to belong to a reform and innovation of intelligent traffic management, which had great progress for the current platform, finally realizes the artificial intelligence and 5 g network information together effectively, and can the new model have a strong push value innovation traffic, it can be seen as shown in figure 2.

![Smart Traffic Network](image)

**Figure 2.** Intelligent information management diagram under traffic operation state

As far as the current theoretical information is concerned, it is also very challenging to realize the artificial intelligence judgment by changing the way of anchor points. Therefore, the current situation and problems of information jam in transportation can be solved by combining value-added technologies [6]. Therefore, the use of 5G network computing in intelligent transportation information is a very important link. When intelligent transportation organically integrates things, resources, things and other information into a new mechanism, information can be rapidly diffused and become the current top-level mode. At the same time, it can also well meet the current people's demand for information and be applied to all scenes. When using 5G information network, it can effectively avoid the limitation of time and space, and it can be based on more flexible information support, which has become an important part of the current intelligent transportation.

3. **Construction of intelligent transportation**

Construction of traffic neural network The terminal of the nerve is mainly AL camera. It has the functions of all-weather intensive image capture, accurate and fast AL model recognition, and makes image flow into recognition data stream [7]. The current AL camera has a very strong shooting ability, which can capture 300+ faces/frame for high-density portraits. The video parsing ability is also very strong. The algorithm training time for tens of millions of pictures has been reduced from days to minutes in the past. In addition, there are holographic sensing nodes, vehicle-mounted T-box and other nerve endings.
The backbone of neural network is to build a communication network. Using the new generation of optical transmission backbone network, MSTP metropolitan transmission network technology and 5G network technology, the data generated by the nerve endings can be quickly and large-capacity transmitted and gathered into the cloud fusion data lake. After these identification data are fused, invocation services can be provided through private cloud, public cloud and other ways [8].

Building an intelligent traffic brain is actually building intelligent applications based on usage scenarios. With a complete neural network, resources, data, algorithms and tasks can be coordinated and consistent, and the cloud edge coordination ability can be built, so that the management, maintenance and use of traffic facilities can be further extended based on the same neural network. Based on this, application scenarios such as traffic fusion command, road network situation awareness, operating vehicle management and control, and intelligent toll inspection can be built.

Build the neural network and brain of traffic, make them work together, and the whole traffic agent is built [9]. Through a comprehensive, accurate, real-time, microscopic traffic data, support from the monitor to the intelligent early warning, from coordination command to information release, humanized service to dynamic emergency disposal of the whole process of intelligent control, build up "holographic awareness and precisely integrated monitoring, early warning, dispatching command, full service" the wisdom of the traffic control system, the traditional transportation industry is undergoing a "Internet +", intelligence traffic upgrades and digital transformation is just around the corner.

4. Conclusion
With the rapid development of Internet technology, artificial intelligence technology has been applied in various industries. Especially in the fields of transportation, it solves of the problem of our country highway construction and management of related difficulties, but it is because of the involved area is relatively more, mutual penetration and cross between disciplines, in the actual operation not only have the transportation expert, expert, also have artificial intelligence technology for intelligent traffic system is based on 5 g network technology in the new system, and traffic development is of vital significance for the future [10-11]. In combination with the characteristics of the current network information technology, the intelligent transportation system must establish its emergency mechanism and safety protection measures, in order to build its perfect service system, so as to scientifically and
rationally construct and optimize the above system, in order to truly ensure the long-term reasonable development of the entire intelligent transportation construction.

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