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Retraction

Retracted: Design of Classroom Intelligent Assistance System under Wireless Network and Deep Learning

Wireless Communications and Mobile Computing

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope

(2) Discrepancies in the description of the research reported

(3) Discrepancies between the availability of data and the research described

(4) Inappropriate citations

(5) Incoherent, meaningless and/or irrelevant content included in the article

(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

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[1] B. Meng and F. Yang, "Design of Classroom Intelligent Assistance System under Wireless Network and Deep Learning," *Wireless Communications and Mobile Computing*, vol. 2022, Article ID 7542104, 10 pages, 2022.

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Research Article

Design of Classroom Intelligent Assistance System under Wireless Network and Deep Learning

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With the development of science and technology, a variety of computer technologies have emerged. The disadvantages of traditional education appear one after another. It is difficult for teachers and students to interact synchronously, and classroom efficiency is not high. Therefore, it is urgent to improve classroom efficiency and the interaction between teachers and students. In this paper, the hardware and software modules are analyzed and studied using wireless network technology, and deep learning convolutional neural network architecture is constructed. The neural network is trained until the optimal model is obtained. The system consists of many scientific front-end technologies. It is a system structure that integrates various information technologies such as computer vision, network communication, wireless sensors, analog electronic technology, and digital electronic technology. The results show that the model generates the most network structures irregularly when the loss rate of hidden nodes is 0.5. Besides, the training effect of the model is the best. In addition, the recognition accuracy of the training dataset can reach 0.98 after the model iteration round is ten. The recognition accuracy of the validation dataset is 0.6. After model iteration, the recognition accuracy can be improved by 8.6%. The performance of the system can be further optimized. In addition, the intelligent assistance system has completed multiple data iterative updates, and the performance of the system can be optimal. The system can ensure the quality of teachers' teaching, improve the quality of students' classroom learning, and adjust the classroom atmosphere. This paper has important reference value for enhancing the interaction between teachers and students and improving learning efficiency.

1. Introduction

Advances in science have revolutionized the education industry. The traditional classroom can no longer meet the basic teaching requirements. Traditional teaching has a single teaching form, monotonous content, and limited application of knowledge, which cannot facilitate the development of students. Based on this, an intelligent classroom assistance system [1], also known as a teaching feedback system, has been introduced. The system consists of many scientific front-end technologies. It is a structure that integrates multiple technologies, such as computing, computer vision [2], network communication, wireless sensors, deep learning (DL), analog electronic technology, and digital electronic technology. The system is built based on this diverse knowl-edge for teachers and students to ensure the quality of teachers' teaching, improve the quality of students' listening, and cultivate students' innovative abilities. In addition, the system can adjust the classroom atmosphere, enhance the interaction between teachers and students, and promote learning efficiency.

At the end of the last century, research on intelligent classroom assistance systems began abroad. In the 1980s, the UK first began to set up intelligent classrooms as independent courses [3], which could be freely chosen by students. The curriculum was built on the foundation of artificial intelligence (AI). Meanwhile, the USA began to include intelligent classroom education as a compulsory course in secondary schools [4]. Every secondary school student must learn this knowledge. Over time, Australia put

forward the advantages of intelligent classrooms [5], suggesting that the emergence of intelligent classrooms could help teachers complete efficient teaching. In 2018, Google first launched the intelligent classroom system. The system created a huge wave as soon as it came out. It had developed steadily abroad, but the development of classroom intelligent systems in China was still closed. Domestic researchers have begun to work on AI research. In recent years, machine learning (ML) algorithms have been introduced, and intelligent teaching systems have been discovered. At first, the intelligent teaching system was only applied to online teaching and was not developed for offline, and the development was very slow. In recent years, the traditional ML algorithm has no perfect theory and teaching system to match it, and the development is relatively slow, which is also the main defect of the traditional method.

For the above problems, this paper proposes a classroom intelligent assistance system based on the wireless network and DL [6] and constructs a DL convolutional neural network (CNN) architecture. It is concluded that the performance of the hidden layer 65 and the hidden layer 17 is the best after multiple data iterative updates are completed, and the optimal training model is also obtained. Besides, the hardware and software modules of the system are analyzed and researched using wireless network technology. The hardware part is divided into the main control unit, front-end acquisition, wireless communication, and voice and text broadcast module. The software part uses the binocular vision algorithm. This algorithm can calculate the distance between the detected students and the podium, observe the activities of the students, and infer whether the students are participating in the classroom and actively interacting with the teacher. This paper proves that the construction of the classroom intelligent system based on the wireless network and DL can effectively promote classroom efficiency, improve the classroom atmosphere, and cultivate students' innovative abilities after a series of work is completed. In addition, traditional teaching is integrated with front-end technology to cultivate students' interests and facilitate social development.

2. Materials and Methods

2.1. Wireless Network Technology

2.1.1. Definition of Wireless Network Technology.
The wireless network is an important component of computer technology. With the rapid development of wireless communication, digital [7], and analog technology, wireless network technology has evolved into a new way of acquiring and processing information. A wireless network is randomly composed of distributed tiny nodes to form a network. This part of the tiny nodes gets sensors through integration [8] and self-organization, and data processing and communication modules also appear. There are different sensors in different nodes. Various factors in the surrounding environment can be effectively measured through these different sensors, such as infrared, earthquake monitoring, and intelligent applications. It is unique in environmental

monitoring and can monitor temperature, humidity, noise, light intensity, pressure, and various components of the land [9], as well as the size of objects. If the object is moving, the speed and direction of the object's movement can be measured. It can also effectively monitor the environment. Conclusions can be drawn from the definition of wireless sensing. Sensor networks can collect, process, and transmit data. On another level, these three functions correspond to the three fundamental technologies in the rapid development of information technology in modern society, namely, sensor, computer, and communication technology. They can be regarded as "senses," "brain," and "nerves" in the information system, respectively [10]. However, the wireless transmission network is a fusion of these three technologies and is an independent modern communication system with powerful functions.

2.1.2. The Composition of Wireless Sensor Network.
The composition of the wireless sensor network system is shown in Figure 1. There are many sensors randomly scattered in the sensor area, and these nodes form a network structure with each other [11]. These network architectures are self-organizing. Any node can complete data collection and have a routing function. The data collected by these nodes is transmitted to the aggregation point using multihop steps and connected to the internet. Task management nodes are performed in the network to classify and process information. Finally, all processed information is displayed to the user.

2.1.3. Commonly Used Sensor Network Logic Structure Diagram.
The wireless sensor includes a wireless link and a wireless interface module. The sensor sends the received data to the detection host [12] to realize the logical function of the sensor network through these two modules, as shown in Figure 2.

The function of the processor module of the wireless sensor node is to calculate and complete the control. The radiofrequency module transmits wireless communication and completes, and the sensor detection module collects data. The battery supplies power for the wireless sensor. The wireless sensor is installed into the wireless sensor network terminal after running and runs with low consumption. The function of the gateway node [13] is to receive the data information obtained and sent by the terminal. After wireless reception, the received information is sent to the PC terminal or server of the wired network. It contains two modules, namely, the processor and the radio frequency module. Low-power network end nodes can form a topology. Different terminal nodes form different star topologies or nonsingle Zig Bee topologies. The end node can also be powered by an external power source. If some nodes fail, or the operating environment suddenly changes, the part of the wireless sensor that runs together with these failed nodes will restart the routing [14] and complete the update. In this way, the normal operation of the wireless sensor and the loss of data can be ensured when there is a problem in the network. Besides, the normal operation of the machine
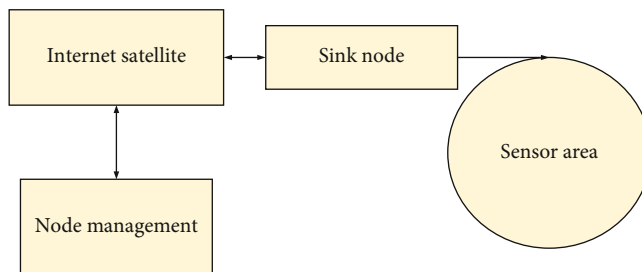
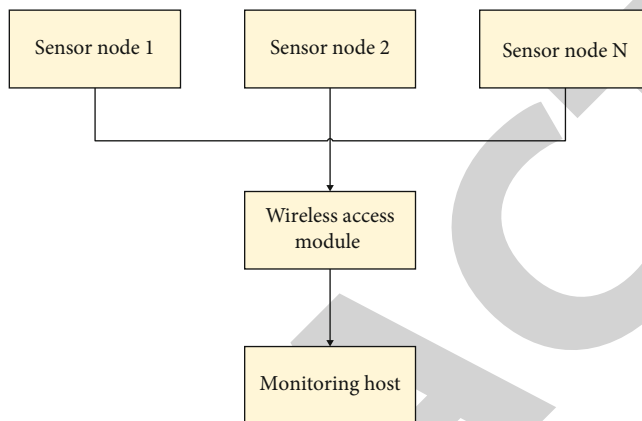FIGURE 1: Composition of wireless sensor network system.

FIGURE 2: Logic diagram of sensor network.

and the user's data information are ensured, and multiple parts work together to achieve smooth operation.

2.2. Key Technologies of Wireless Sensor Networks

(1) Wireless communication technology is the primary key technology. The communication distance of nodes is very short, and the longest is only hundreds of meters, which means that the communication ability is weak. Then, wireless communication technology is needed to realize the transmission of sensory data

(2) Low-power consumption is the second most important technology for wireless sensing. How to store power is significant to wireless sensing. Sensors generally operate in harsh environments. Batteries are difficult to replace once they are in service. Battery life is the lifeblood of sensors, and there is no way to avoid paralysis without electrical sensors. Therefore, it is particularly crucial to design low-power consumption, which can prolong its service life

(3) Embedded operating system [15] is the third critical technology of wireless sensing. The sensor size is very small, and the processor performance of the node is limited. Moreover, the memory size is also quite demanding due to the small size, and complex algorithm work cannot be performed on the sensor. Embedded operation is particularly vital to balance the sensing function

(4) Routing protocols are also important technologies in sensor networks. Sensor networks are not supported by base stations. If there is a problem with the node, or an update occurs, the wireless sensing needs to be repaired through the routing protocol. This can maintain the normal operation of the node and the wireless sensor

(5) Data fusion is one of the important technologies of the sensor network. Users do not pay attention to the network and hardware parts, but they need data based on the network and hardware. Therefore, data fusion is particularly important. It balances the relationship between technology and use and plays a role

(6) Security is a quite critical wireless network technology. It avoids cyberattacks, keeps data safe, and maintains healthy operations

2.3. DL Technology.
DL is the most cutting-edge technology in ML [16], and most of the research revolves around it. DL is the process of automatically classifying experimental data. It imitates the thinking mode of human thinking processing and analyzing things and analyzes the experimental data that has been processed and classified. DL networks use a variety of functions and tools, such as activation functions, loss functions, neural unit error backpropagation, and gradient descent. DL combines objectivity and accuracy. DL mainly builds a neural network model that can be provided for classification or prediction. Iteratively valid information and
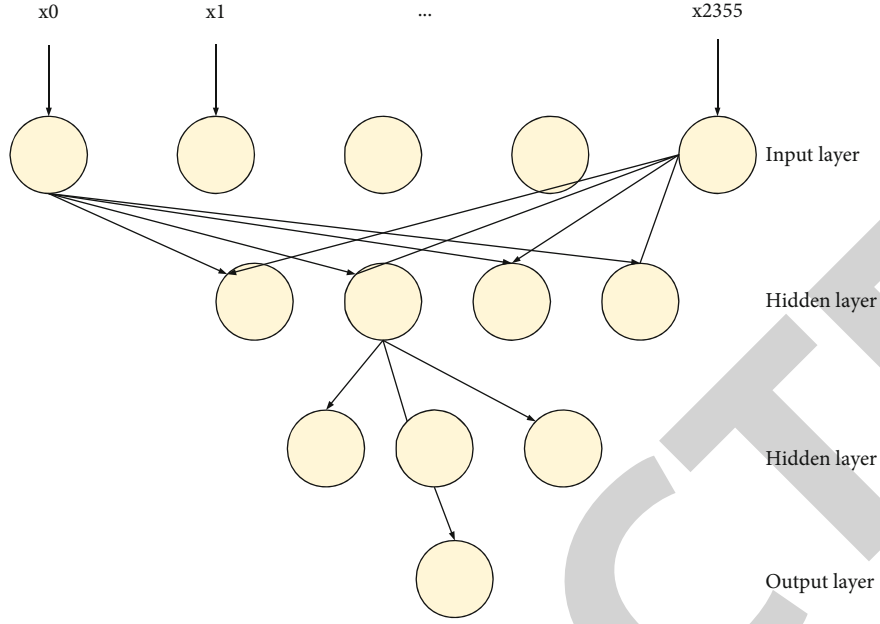
Figure 3: The structure diagram of the DNN network model.

data loss are continuously computed during model building. There are many methods based on DL. This paper introduces deep neural network (DNN) [17], CNN [18], and long short-term memory (LSTM) [19].

(1) At present, DNN is the most used DL algorithm. Firstly, the DNN network is used to design the model structure. DNN is divided into three parts, the input layer, output layer, and hidden layer. Each layer contains many neurons. Different layers are connected by a fully connected structure. After performing multiple data calculation iterations, it is found that the DNN consists of an input layer, two hidden layers, and an output layer. Also, the results show the best performance when using hidden layer 65 and hidden layer 17. The input layer is responsible for the input of data elements, and the output layer represents the output of the model results. The role of the two hidden layers is to abstract the features of the input data into another dimension space. Meanwhile, these two hidden layers can iteratively process the input data in multiple layers, which is necessary. Figure 3 shows the structure diagram of the DNN network model

DNNs include neurons [20]. It is the smallest unit in the network and is used to transfer data between layers. Neurons are used for computation in the network. z means linearly weighting the input. Weights are parameters that need to be learned and represent activation functions. Commonly used activation functions are Sigmoid, Tanh, and Relu functions. The introduction of activation functions enables DL to solve nonlinear problems. DNN models contain one input, one output, and two hidden layers. The hypothesis space of the model is extended from linear to nonlinear, which
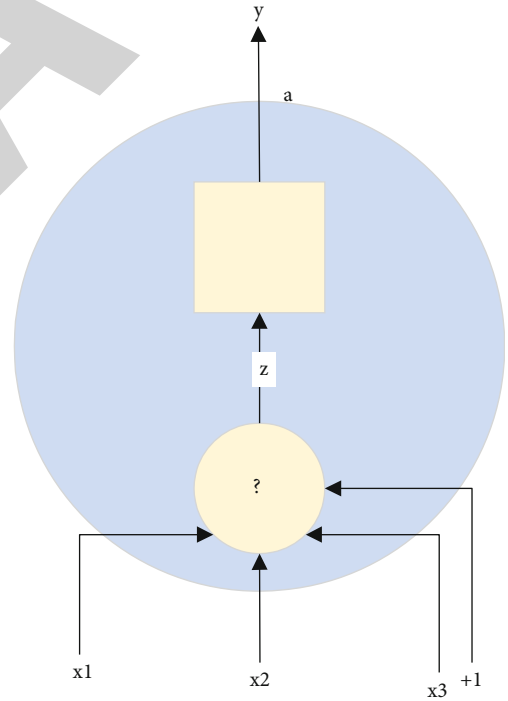

Figure 4: Neuron structure of DL.

greatly improves the expressiveness of the model, as shown in Figure 4.

In Figure 4,

$$z = \sum (w_i x_i + b_i), \tag{1}$$

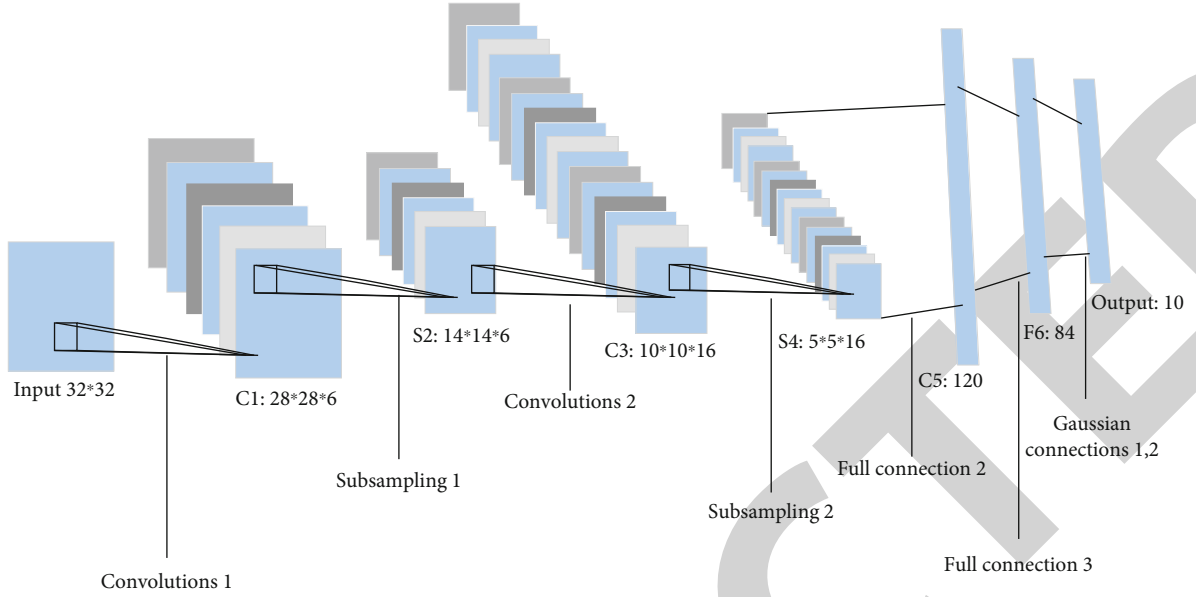$$y = \sigma(z) = \sigma\left(\sum (w_i x_i + b_i)\right), \tag{2}$$

Figure 5: Basic structure of CNN.

where z represents the method of linearly weighting the input, $w_i x_i$ represents the weight coefficient, and b_i represents the bias.

(2) CNN is the representative algorithm of DL. CNN has many specific capabilities and representation learning capabilities. It can perform shift-invariant classification of data input to the network according to different structures. It can achieve translation invariance in the classification process, so it is also called a "translation invariant artificial neural network." From the 1980s to the 1990s, research on CNN began. The first CNN to appear was the time delay network [21]. After the 21st century, CNN began to develop rapidly and was widely used in many fields, which played a huge role in scientific and technological progress and human development

CNN is based on biological visual perception. The imitation of biological vision enables both supervised and unsupervised learning. CNN is generally divided into convolutional layers and pooling layers. Multiple data iterations are required for model building and training to get the desired results. The structure of CNN is shown in Figure 5.

The basic structure of CNN includes two special neuronal layers. The first is a convolutional layer. The input of each neuron is connected to the part of the previous layer, and the features of that part are extracted.

The second is the pooling layer, which is a computational layer used to find local sensitivity and secondary feature extraction. This double feature extraction structure reduces feature resolution and the number of parameters that need to be optimized [22]. During the training process of CNN, the gradient descent method is usually used to optimize the model.

At the end of the model design, the LSTM network is used to replan the system. LSTMs are the most efficient sequence models in digital libraries. It mainly consists of three parts: forget gate, input gate, and output gate. The recurrent neural network model [23] suffers from the problem of missing gradients. LSTM effectively avoids this drawback and proposes a new cell structure cell [24], which can judge the retention or forgetting of data. Real-time data is processed from the far left to the far right. It is processed from the time of input, so it is necessary to judge which information continues to run and which is abandoned in the face of endless input information. This process follows a switch control, namely, $f^{(t)}$.

The control function is as follows.

$$f^{(t)} = \sigma\left(w_f\left[h^{(t-1)}, x^t\right] + b_f\right). \tag{3}$$

where w_f *and* b_f are the weight and bias of the forget gate, respectively. The preceding information is entered into the input gate by selecting the input unit. The task of the input layer is to decide which information needs to be updated and how much.

$$i^t = \sigma\left(w_i\left[h^{(t-1)}, x^t\right] + b_i\right), \tag{4}$$

$$c^t = \sigma\left(w_c\left[h^{(t-1)}, x^t\right] + b_c\right), \tag{5}$$

$$C^t = i^t * c^t + f^{(t)} * C^{t-1}, \tag{6}$$

where w_i and w_c represent weight coefficients of sampling and selection units. b_i and b_c represent the corresponding deviations. C^t represents the current cell state value. After the first two gates are screened, the output gate finally decides what information needs to be output. There is a

switch in the output gate that controls the output, and the control method is as follows.

$$\sigma^t = \sigma\left(w_o\left[h^{(t-1)}, x^t\right] + b_o\right), \tag{7}$$

$$h^t = o^t * \tanh^{-1}\left(c^t\right), \tag{8}$$

where w_o and b_o represent the weight and bias of the output gate, respectively. h^t represents the last output value of the output unit.

2.4. The Overall Structure of the Classroom Intelligent Assistance System. The system consists of hardware and software. The hardware is responsible for acquiring images with the embedded [25], and the software is used for image processing. The hardware part is divided into the main control unit module, front-end acquisition module, wireless communication module, and voice and text broadcasting module. The software part uses the binocular vision algorithm to calculate the detected distance between the students and the podium to observe the activities that the students are doing and infer whether the students are participating in the classroom and actively interacting with the teacher. The binocular vision algorithm has a similar principle to naked eye observation. Different imaging devices are used to detect images of objects from different angles, and 3D reconstruction can be used to obtain the 3D geometric information of the object under test.

2.5. Hardware Design of Classroom Intelligent Assistant System

(1) The main control unit module is the central control unit module. The module is built with the ARM9 core chip as the main chip. The classroom intelligent assistance system has several different unit modules. The meaning of the existence of the main control unit module is to summarize, analyze, and process the data information on these different unit modules. Besides, the main control unit module is also responsible for controlling the functions of each module and issuing control instructions to them. This module uses the total strength to coordinate the entire system and achieve orderly operation. The main control module issues the command to use the camera to shoot the video of the classroom scene. The video image is compressed according to a preset algorithm. Typically, a 6:1 compression ratio is required. The compressed video image is forwarded to the cloud server to compress and control the size of the video image to ensure that the video image is effective when it is transmitted under each module. The central control unit also needs to observe the final result sent from the cloud server and feed the result back to the user through the voice module

(2) The function of the front-end acquisition module is to acquire two images of the same picture by simulating the imaging principle of the left and right eye

views of the naked eye. This module uses four CMOS high-definition cameras with the same performance and parameters. They are divided into two groups, located in the front and the back of the classroom, respectively. The real-time situation in the classroom is collected in an orderly manner. The acquired images are sent to the central control unit for processing

(3) The function of the wireless communication module is to transmit video and images, but it requires high transmission speed and accuracy. This module consists of external partial circuits and communication chips. The operation of this module depends on the network downlink bandwidth of 100~150Mbps and can reach a speed of 12.5~18.75 MB/s during downlink communication transmission. This module can efficiently realize the information transmission and exchange between the classroom intelligent assistance system and the cloud server, and the data can also maintain high speed when the transmission is stable. The video images captured and compressed by the front end are transmitted to the cloud server for processing through the communication module by the control of the main control unit module. Moreover, the cloud server sends the identified obstacles and the calculated distance to the main control unit through the communication module, and the results are also fed back to the user in real time

(4) The functions of the language broadcast module are as follows. The cloud server detects that there are students in the classroom who are not paying attention or doing small movements. The main control unit module broadcasts the image information processed by the cloud server to the teacher by voice, so the teacher can take timely measures to supervise students' learning. This module mainly uses the SYN6288 Chinese speech synthesis chip to broadcast the voice and text and convert the image information sent by the cloud server into audio information. The SYN6288 voice chip adopts two communication methods, namely, UART and SPI. These two communication methods can realize the specific functions required here, such as the timely and efficient transmission of voice information

2.6. Software Design of Intelligent-Assisted Driving. The design of this system software consists of two parts. It is divided into front-end and back-end. The first part is the front-end. The front-end is designed to be equipped with ARM9 on the Linux system. The work completed in this part mainly includes the collection and compression of front-end video images, cloud server communication, and voice broadcast. The other part is to classify the images collected in the first part. Further identification prepares for follow-up. This part is mainly done on the cloud server. On the Opencv platform, the two-dimensional images obtained by the two cameras are obtained through the BM algorithm to gain the
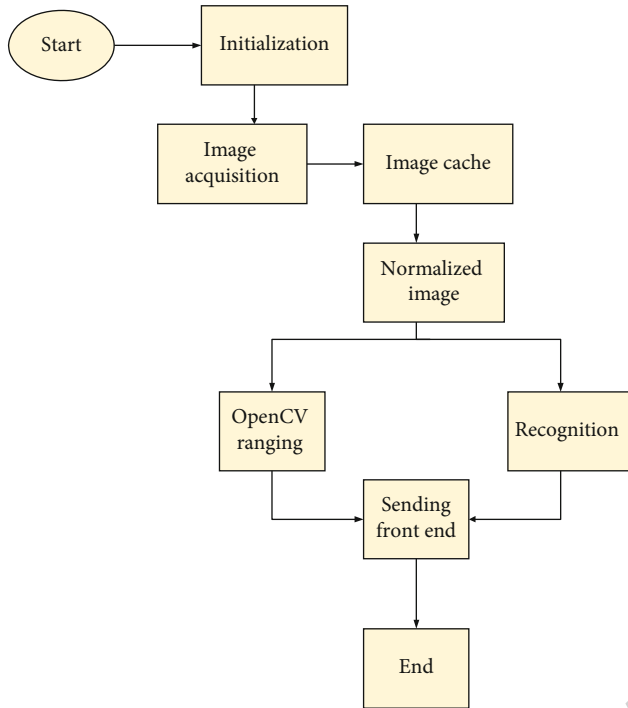
Figure 6: System software flow chart.

Table 1: Experimental dataset distribution.

Dataset distribution	Quantity
Training set	1,000
Validation set	260
Test set	300

Table 2: Hyperparameter settings of the model.

Hyperparameter	Value
TensorFlow layers	5
HiddenSize1	65
HiddenSize2	17
Dropout	0.5
Batch size	65
Learning rate	0.001

image parallax. The binocular vision algorithm is used to calculate the distance between the detected students and the podium, observe the activities of the students, and infer whether the students are participating in the classroom and actively interacting with the teacher. The binocular vision algorithm has a similar principle to the naked eye. The binocular machine vision system proposed here uses two cameras with a certain parallel angle of sight to collect images. This method has many advantages. It has easy structure and high measurement efficiency. Measurement and matching are precise. In the recognition and detection of image behavior, the DL framework Caffe framework is used. C++/CUDA language is mainly used to train DL neural networks to complete image recognition. Figure 6 displays the system program flow chart.

3. Results and Discussion

3.1. Accuracy of DL CNN. Experimental data for DL is usually represented by text vectors and label data. Text vectors and cousin data are not the same as the data for the Naive Bayes model. Under this model, 1,560 pieces of data are divided into three parts, namely, training data, validation data, and test data samples. Also, 80% of the capacity is training data and validation data. Validation data can avoid

overfitting problems. During experiments, validation data is often used to determine some hyperparameters. Table 1 shows the final experimental dataset results.

Hyperparameters include the number of layers in the DNN model and the number of neurons each layer contains. During model training, parameter adjustment requires manual participation. After experiments, it is concluded that the performance of the model is the best when the number of hidden layers is 17. A comparison between the loss rate and the accuracy rate is added to the DL network considering the possible overfitting problem of the model. After verification, the model achieves good results when the loss rate of hidden layer nodes is equal to 0.5. At this point, the model can generate the most network structures. The training effect of the model is adjusted to achieve the best results by manually setting hyperparameters. The specific hyperparameters are set as shown in Table 2.

The model data extraction problem verified here is included in the binary classification problem, so the loss function is represented by cross-entropy. Optimizer selection has been improved when stochastic gradient descent. The data is divided into batches with a batch size of 65. During each model training period, the loss and accuracy data on the validation and training sets are tested. The accuracy region on the validation set remains the same and does not improve anymore when the number of iterations is eight. The validation set loss no longer drops. The model will have an overfitting problem when the number of times is greater than 8. Therefore, the model training works best when the number of iterations of the model is eight, as shown in Figures 7 and 8.

From Figure 8, the recognition accuracy on the model training dataset is higher than that on the validation dataset. When the iteration round is 0-5 rounds, the difference between the recognition accuracy of the training data set and the verification data set is not large, and it is maintained at about 0.4-0.8. With the increase of model iteration rounds, the recognition accuracy of the training data set can reach 0.98 after the model iteration round is 10 rounds. Besides, the recognition accuracy of the validation dataset is 0.6. The results show that the recognition performance of the model on the training dataset can be significantly improved as the number of iterations increases.

3.2. Factor Analysis of Classroom Intelligent Assistance System Data. The results indicate that the influence of the intelligent assistance system on the teaching effect is positive
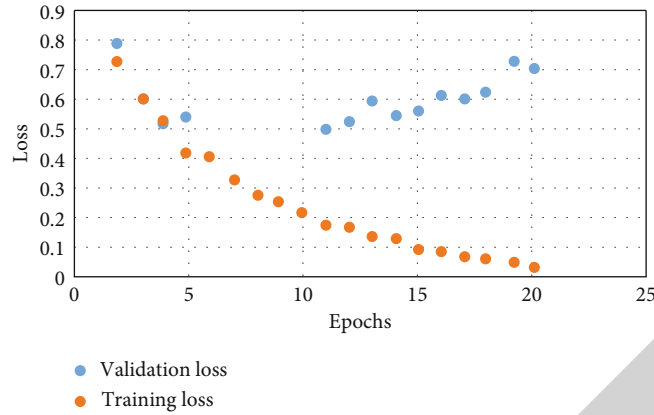
FIGURE 7: Comparison of model dropout rate results on training and validation sets.
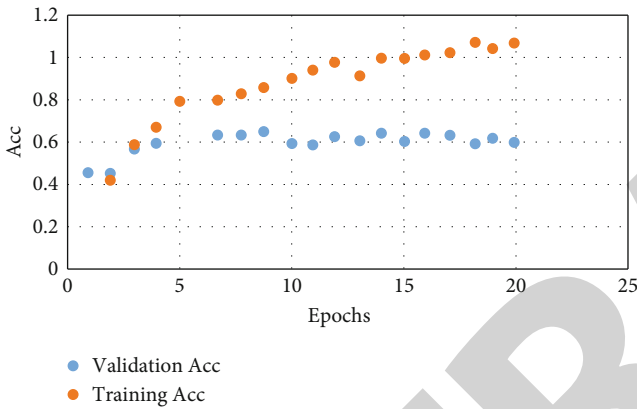

FIGURE 8: Comparison of model recognition accuracy results on training and validation sets.

TABLE 3: Factors of classroom intelligent assistance system data.

Teacher number	Raw score	Raw score 1	Raw score 2	Raw score 3	Comprehensive score
1	67.82	-2.23	-0.71	-0.71	-2.19
2	68.43	-1.81	-2.31	-1.32	-1.87
3	69.87	-1.57	0.60	-3.89	-1.57
4	71.88	-0.67	1.89	-0.53	1.12

through the investigation and research on the situation of teachers and students in the classroom intelligent assistance system. Assistive systems can be used as key information to facilitate teaching. The factor analysis is introduced to data assisted by classroom intelligence. According to the fundamental steps of factor analysis, the method of principal component analysis is applied to analyze the data of the intelligent assistance system. The results shown in Table 3 are obtained.

From Table 3, different teachers have different scoring results for the system among the influencing factors of the data of the teacher's intelligent assistance system. Teacher no. 4 rates the intelligent system as 71.88. The score of the original indicator one is -0.67, the score of the original indi-

cator two is 1.89, and the score of the original indicator three is -0.53. Therefore, the comprehensive score of the intelligent assistance system data of teacher no. 4 is 1.12. In addition, the original scores of teachers no. 1 and no. 2 on the auxiliary system are 67.82 and 68.43, respectively. The comprehensive scores of the two teachers are -2.19 and -1.87, respectively, after various index coefficients are synthesized. The results imply that the teacher's intelligent assistance system can meet the needs of most teachers in class and has practical application value for improving the effect of classroom teaching. The performance of the classroom intelligent assistance system proposed here is compared with other research results. Wan et al. [26] studied the intelligent voltage regulating device of the adaptive auxiliary control system. They simulated various transient responses with the proposed model under different parameter settings. The results showed that good pipeline pressure control could be achieved by reducing the fluctuation range. Jing et al. [27] designed and researched an intelligent auxiliary diagnosis system for nursing outpatient clinics. The results showed that communication and cooperation between medical staff and patients could be promoted by increasing data sharing. Research could innovate the traditional Chinese medicine (TCM) nursing management model and provide patients with good TCM nursing services. To sum up, the intelligent auxiliary system for classroom teaching proposed here has superior performance and can provide technical support for teachers' classroom teaching.

4. Conclusion

With the advancement of science, various technologies emerge one after another. This paper proposes an intelligent classroom assistance system based on wireless networks and DL, also known as the teaching feedback system. It is composed of various scientific front-end technologies. The system is built for teachers and students to ensure the quality of teachers' teaching and students' listening based on this knowledge. The system can adjust the classroom atmosphere, enhance teacher-student interaction, and improve learning efficiency. This paper adopts the key technology of wireless networks and constructs the basic structural frame

of CNN. The loss rate results of the model on the training set and the validation dataset show that the model loss rate on the training dataset is 0.4 after five rounds of model iterations. The dropout rate on the validation dataset turns out to be 0.52. However, the method proposed by the study still has shortcomings. For example, the proposed method tests teachers' understanding of emerging front-end technologies and is not friendly to older teachers. This method also tests the self-discipline of students. Future research should focus on combining innovative methods with online and offline smart education and simplifying theoretical knowledge. In this way, the promotion and popularization of intelligent education can be increased.

Data Availability

The data used to support the findings of this study are available from the corresponding author upon request.

Conflicts of Interest

The authors declare no conflicts of interest.

Acknowledgments

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