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Retraction

Retracted: Development and Construction of Internet of Things Training Practice Platform for Employment Skills Assessment

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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.

References

[1] X. Zhang, "Development and Construction of Internet of Things Training Practice Platform for Employment Skills Assessment," *Journal of Sensors*, vol. 2022, Article ID 3014565, 7 pages, 2022.

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Research Article

Development and Construction of Internet of Things Training Practice Platform for Employment Skills Assessment

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In order to solve the problem of employment skills assessment, a method using the Internet of Things training practice platform is proposed. The main content of this method is based on the research and analysis of the practical training platform of the Internet of Things. According to the data characteristics of the Internet of Things and through the construction of the practical platform, it is concluded that the development and construction of the practical training platform of the Internet of Things is highly feasible for the evaluation of employment skills. The experimental results show that the average RI value of data mining accuracy is 0.95, and the accuracy of data mining algorithm is high. *Conclusion*. It proves that the development and construction of the practical training platform of the Internet of things is feasible and accurate for the evaluation of employment skills.

1. Introduction

With the rapid development of China's science and technology level and production technology level, the demand for technical personnel has become increasingly urgent in recent years. Although the number of college graduates is gradually increasing every year, the inevitable contradiction between the single orientation of professional talent training and the diversity of human market demand makes some college graduates face severe employment problems. In view of the problem of difficult employment, many higher vocational colleges have carried out investigation and research and concluded that there is a huge difference between the actual needs of employing enterprises and the comprehensive level of college students' professional employment ability and adaptability. Lack of knowledge application ability and communication and cooperation ability, lack of sense of responsibility and professional ethics, lack of ability to grasp social needs and adapt to professional needs, and other personal conditions directly lead to the failure of students trained by schools to find jobs, while enterprises cannot recruit suitable talents [1].

In recent years, the employment of college students has been concerned by the society. The contradiction of higher education in China has been transferred from the entrance to the exit, that is, from the difficulty of enrollment to the difficulty of employment [2]. Although China is a country with a large population, it faces a serious shortage of talents at the same time, and the total amount of college students cannot meet the needs of social development. The expansion of college enrollment has brought the proportion of the mainland's population in higher education to about 5%. Even so, compared with the proportion of the population receiving higher education in developed countries, China's higher education personnel training scale is far from meeting the needs of social development. On the other hand, the talent training of colleges and universities is disconnected from the market demand. What the market needs cannot be effectively supplied, and a lot of what the market does not need is cultivated. It is common that some people have nothing to do, and some people have nothing to do. At the same time, college students show an obvious imbalance in the choice of employment goals, and graduates flock to the central cities and hot fields in developed regions, while relatively backward second- and third-tier cities in central and western regions and unpopular industries at the grassroot level attract little attention.

Employability is a big problem facing the vast majority of people in today's society, and college students are a large

part of the majority of people. It is also an important premise of national economic development, and with the development of modern science and technology and knowledge economy, those traditional employment methods no longer adapt to the needs of the current market; thus, it can be seen how important it is to enhance the employment ability of college students to graduate to adapt to the development of the new era situation [3].

2. Literature Review

Employability refers to the ability of college graduates to realize the ideal of employment to meet social needs and realize their own value in social life through the study of knowledge and the development of comprehensive quality, including learning ability, ideological ability, practical ability, employment ability, and adaptability. After continuous development, the college students apply for a job as a process to deal with, and through the successful and unsuccessful student employment experience contrast, it was found that college students' employment ability can be divided into social psychological capital and professional identity of human capital four parts. Having the effect of the mutual promotion between the parts together constitutes the overall employment ability. As a result, today's college students no longer rely solely on their higher education qualifications, but must become flexible and adapt to changes in the labor market by developing and gaining position advantages over other graduates of similar academic and class status. To gain position advantage, college students need to develop and acquire skills, especially core skills (hard skills) and transferable skills (soft skills) [4]. It can be seen that college students' employability is a concept of dynamic development and a comprehensive framework of individual static basic quality and dynamic process characteristic. With the change of the social employment market environment, its content is constantly enriched and improved, from the initial focus on the employability of college students, to the basic ability to obtain and maintain the job, to the acquisition of subject knowledge, practical skills, and personal characteristics, and finally expanded to the overall focus on the key elements of college students' employability.

In view of the above problems, this paper proposes the development and construction of Internet of Things training practice platform for employment skills assessment. Start from the current situation of Internet of Things training practice teaching, combined with employment and professional certification. Through the development and construction of the practical training platform for the Internet of Things, the theoretical and practical teaching links of the Internet of Things can be served; the ultimate goal is to train outstanding talents in the field of the Internet of Things with the ability to solve complex engineering problems and to serve the regional economic development [5]. In order to improve the quantity and quality of students' employment, based on the analysis and summary of the existing practical teaching platform construction scheme, the development ideas and construction focus of Internet of Things practical training teaching platform suitable for this major are proposed. Based on the guiding principle of a comprehensive platform, the software and hardware composition, the functions and characteristics of the system, and the feedback evaluation management system of the teaching platform are discussed. Through the construction of the practical teaching platform to serve the professional construction and professional certification, promote the reform, so that the practical and training courses can not only meet the training of students' practical and innovative skills. At the same time, reasonable feedback and evaluation can be carried out on the employment skills of students who participate in the training, which provides a strong and reasonable basis for students to find jobs and enterprises to choose the corresponding talents [6].

3. Research Method

3.1. Research on Practical Training Platform of Internet of Things

3.1.1. Platform Status Analysis. Internet of Things (IoT) is an emerging major that lays equal emphasis on multidisciplinary theory and practice, covering communication, computer network security, various sensors, and other knowledge. How to build a set of training and practice platform that can meet the needs of complex engineering problems and talents in the Internet of Things industry is an urgent problem to be solved in the construction of the Internet of Things specialty [7]. At present, the practical teaching of Internet of Things major has the following problems: Theoretical knowledge lags behind the development of social technology, leading to the practice of training content has been outdated or even eliminated. Students are not exposed to the latest developments in science and technology at school, leaving students facing unemployment when they graduate. The content of practical teaching is narrow and only involves the content of teaching materials, which is obviously divorced from the level of social development. Moreover, most of the practice content is based on the verification of basic experiments, which cannot cultivate students' innovation ability and the ability to solve complex engineering problems. The lack of practical equipment limits the progress of teachers' design and updating of teaching content, resulting in the fact that practical teaching lags behind theoretical teaching. Many experiments of the Internet of Things majorly involve many aspects of knowledge and are difficult to operate. In the absence of hardware equipment, students are forced to adopt virtual simulation experiments, which is not conducive to the establishment of system concepts and the cultivation of innovation ability [8].

The integrated practice teaching system of industrial research+on-campus training enterprise internship employment customization can fully cultivate students' employment ability in practice teaching and achieve the goal of classifying students. It is more suitable for colleges and universities aiming at cultivating application-oriented talents. The project-based practice teaching system adopts the way of joint training of schools and enterprises, which requires

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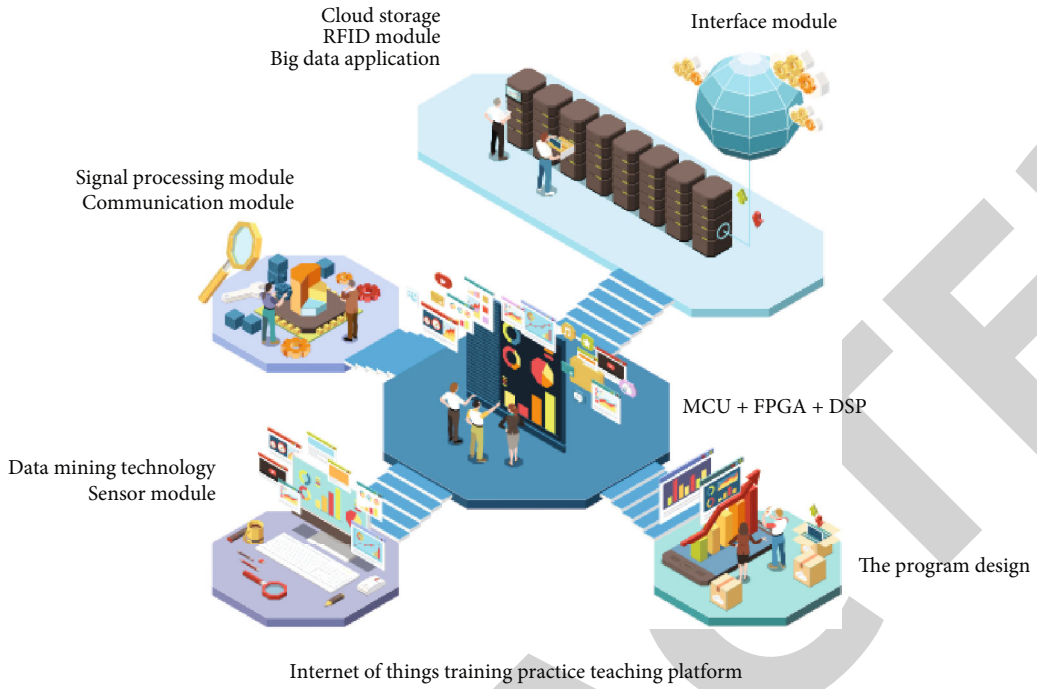

Figure 1: Block diagram of Internet of Things training practice teaching platform.

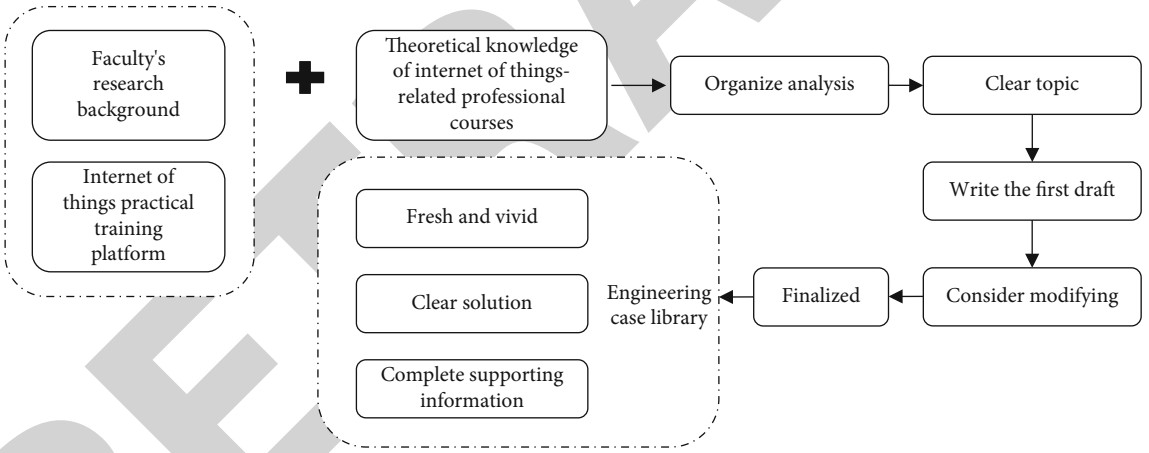

Figure 2: The characteristics and procedures of the Internet of Things experiment and teaching cases.

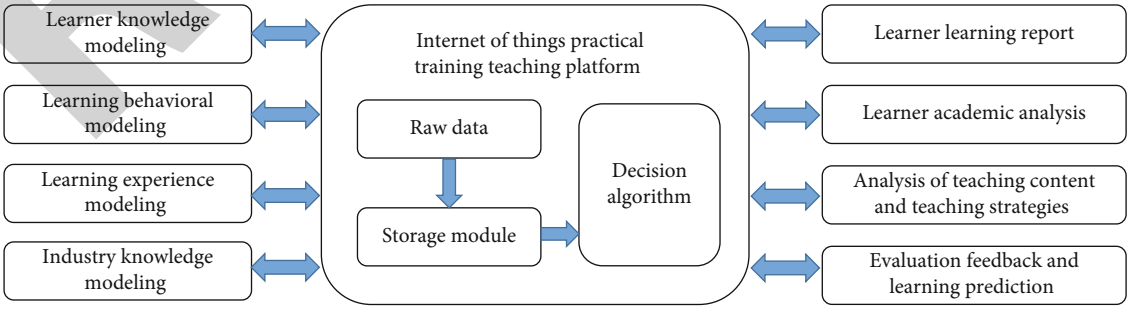

Figure 3: Big data application model of Internet of Things practice and training teaching platform.

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high participation of enterprises, so it is difficult to implement. The disadvantages of this scheme are that it is not universal and has poor extension. Through a variety of teaching means or a variety of discipline competitions to promote practical teaching, the employment skills of college student targeted training, so as to achieve the purpose of improvement of the two methods, also have a certain one-sidedness, not fully consider the needs of enterprises [9].

3.1.2. Data Characteristics of Internet of Things. The data pattern tree obtained by the dimension comprehensive control mechanism can obtain the scope of data mining to a certain extent, but the specific results of data mining cannot be obtained because the calculation of model correlation degree is not accurate enough. Therefore, feature extraction method is adopted in this paper to detect feature data in Internet of Things big data. According to the attribute dimension of big data, the value dimension of information data is obtained, the data set to be mined is set as d, and the dimension of the data set is set as D, and the set W is obtained according to the value of data attribute. The subspace S required for data mining is contained in a collection of data attribute values, and the data objects 0ED in the subspace are for advices. According to the characteristics of outlier distribution, it can be concluded that the nearest neighbor domain (o, S) of data objects in subspace also presents nonuniform distribution. The outlier probability of a randomly selected data object in the subspace can be expressed as $l(o, S)$ in the data set. From the perspective of multidimensional data attributes, it can be found that the center point of the subspace is the data object [10]. Then, the probability calculation formula is as follows:

$$d_s = \frac{1}{I_d(o, S)}. \tag{1}$$

Distance is expressed as d. If the data object is still in the central position in all data sets to be mined, the standard distance σ between data s and data o can be obtained by the following formula:

$$\sigma(o, s) = \sqrt{\frac{\sum_{s \in S} d(o, s)^2}{|S|}}. \tag{2}$$

3.2. Internet of Things Training and Practice Platform Construction

3.2.1. An Integrated Platform. The platform can meet the dual teaching tasks of practice and training, that is, meet the needs of teaching links such as the independent experiment in the course of professional curriculum design and experiment in scientific research training and graduation design. It also needs to meet the requirements of comprehensive practical training projects such as discipline competition, simulation, and enterprise practice [11]. There are many factors that need to be considered in the development of a comprehensive platform, among which the teaching team is most concerned about the scalability and upgradability of the platform. Modular design is adopted in the design, and the functional richness of hardware products is considered in the selection of hardware products. It can not only ensure the diversity of practical teaching content of this major but also meet the diversified development requirements of students such as employment competition. It can also meet the needs of students of other majors for in-class and extracurricular experiments, as shown in Figures 1 and 2.

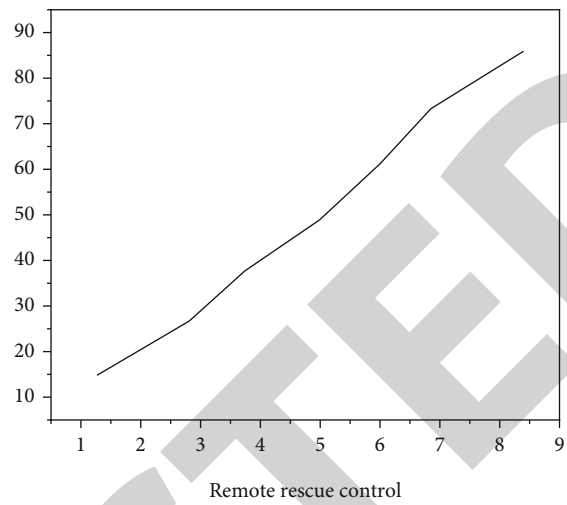

Figure 4: No employment services are currently available.

The hardware part of the integrated platform includes sensor technology-related practice module, RFID development and design-related practice module, SCM+FPGA +DSP-integrated embedded system development module, communication module, signal processing module, and interface module, which may be involved in the students' competition and employment training in the training program [12]. The software part includes JAVA, C++, and other related program design and development of data mining technology python, R and other language simulation and big data application technology, comprehensive application ability, and innovation ability training.

3.2.2. Two Innovative Developments. Considering the development trend of the Internet of Things, data mining and big data analysis-related technologies are introduced in the development process of the integrated platform for the first time. It can satisfy students' development of relevant experimental competitions and practical training based on professional core courses and help teachers obtain data models such as students' learning process detection, academic analysis and prediction, and final decision evaluation from the platform data [13]. The big data application model of the integrated platform is shown in Figure 3.

First of all, the integrated platform records the learning data of each link of learners and models the knowledge already possessed by learners through internal algorithms. Then, model the learning knowledge system and the behavior of the learning process of learners, analyze the internal relationship between their learning activities and teaching

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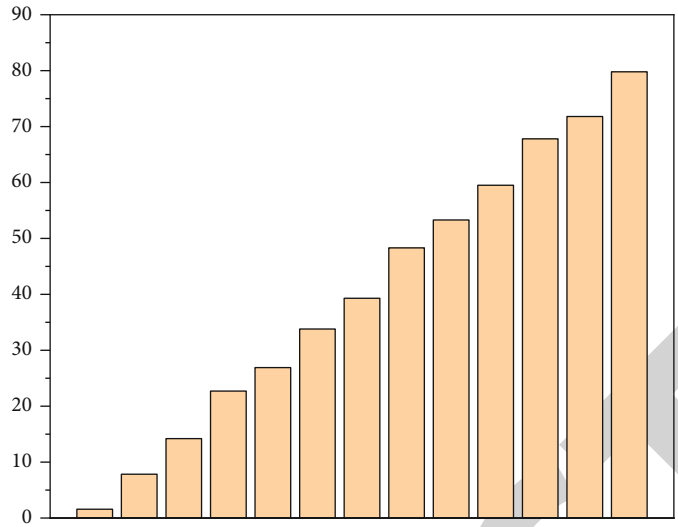

Figure 5: Employment services in the content, quality, and mode of problems.

Table 1: RI value's comparison.

	RI value
10%	0.96
20%	0.95
25%	0.95
50%	0.93
Mean value	0.95

objectives, and predict the learning effect of the course. Analyze the performance of learners' practice and training process and establish an experience model. Finally, the study data of each learner on the comprehensive platform are analyzed to obtain the study report, study analysis, and evaluation feedback, so as to help students find problems in time, motivate learning motivation, and improve learning efficiency [14]. At the same time, the comprehensive platform will also provide teachers with teaching analysis and strategies based on students' learning and other process data, helping teachers timely adjust course content and teaching methods, and providing basis for the next course reform. Teaching integration can also track students' academic performance on a platform and obtain abnormal report analysis, providing managers with risk intervention strategies in time and bringing great convenience to the quality of talent cultivation and professional certification of the whole profession [15].

The major of Internet of Things is a new major which involves a wide range, so the content of professional courses must keep pace with the development of science and technology. Therefore, the course content is required to be updated quickly, so the platform construction must also take into account discipline construction and professional course construction and update, and the expansibility and compatibility of the system should be fully considered in the development of software and hardware. With the help of the promotion of discipline competition, the competition content is integrated into the relevant curriculum knowledge points, which not only enriches the curriculum content but also enriches the construction of the curriculum teaching case base and stimulates students' learning motivation [11]. Subject competitions can also promote the innovative thinking of teaching teams, test teachers' mastery of professional knowledge and application ability, and promote the updating of curriculum content and continuous improvement of teaching ideas and methods. The participation of teachers or the guidance of students in the competition can help teachers understand and master the latest developments in the development of the Internet of Things industry. The teachers' ideas are conducive to the timely update of professional course content and experimental content, so that students' knowledge structure can keep up with the development of the industry and improve the employment competitiveness of Internet of Things student [16].

3.2.3. Employment Services. The survey shows that 97.12% of college students have carried out relevant employment services around the four aspects, and the most services in each aspect are the campus job fair organization service through the employment network to provide recruitment information services, career, and employment guidance lectures and employment contract management services [17]. However, only 17.81% of college students are satisfied with the scope of employment services provided by colleges and universities. Taking 50% of college students' choice as the threshold value, the questionnaire shows that the employment services that students need very much but universities do not carry out are employment information customization and intelligent push service (79.19%), campus job fair data analysis (73.62%), employer certification and integrity evaluation (69.15%), remote Job Search Service (64.37%), contract signing legal advice and assistance (62.42%), career and career orientation assessment (57.31%), peer employment guidance and mutual aid (52.33%), and career development and job search files (50.08%) (see Figure 4 [18]).

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In terms of service content, the existing problems are mainly reflected in timeliness and pertinence, such as delayed updating of recruitment information (60.21%), false or incomplete recruitment information (58.71%), disconnection between employment guidance content and the market (55.30%), and outdated employment guidance cases (53.29%) [19]. In terms of service quality, the main problem is the lack of precision and professionalism of service. For example, the number of campus job fairs is insufficient (61.63%), and the number of recruitment information is insufficient (58.28%). The matching degree of campus job fairs is low (56.92%). The matching degree of recruitment information is low (55.31%), and the professional career guidance is not strong (50.00%). In the aspect of service mode, the existing problems are mainly reflected in the backward mode and low efficiency [20]. For example, the employment information service mode is single (77.29%), the employment contract process is complicated, the cycle is long (65.19%), the employment guidance service lacks interaction (53.36%), and the employment assistance effect is not obvious (52.91%), as shown in Figure 5 [21, 22].

4. Interpretation of Result

The accuracy of data mining is judged by RI value. RI value ranges from 0 to 1, so the closer the calculated result is to 1, the higher the similarity between the data mining result and the actual result is, and the accuracy of the data mining algorithm is higher [23, 24]. On the contrary, the closer the calculation result is to zero, the lower the accuracy of the data mining result is, and the algorithm performance is poor. The mean RI value is 0.95, and the accuracy of the data mining algorithm is higher, as shown in Table 1.

5. Conclusion

In order to solve the problem of employment skills assessment, a method using the Internet of Things training practice platform is proposed. The main content of this method is based on the research and analysis of the practical training platform of the Internet of Things. According to the data characteristics of the Internet of Things and through the construction of the practical platform, it is concluded that the development and construction of the practical training platform of the Internet of Things is highly feasible for the evaluation of employment skills. The practical teaching platform of Internet of Things training can not only meet the requirements of theoretical practice teaching but also adapt to the employment training of students in discipline competitions and also meet the requirements of data mining experiments for students of other majors. Therefore, our development and construction also integrates various forces, including discipline construction, professional course construction, teaching team construction, and industry-university-research construction, as well as resources from other universities and enterprises, so as to integrate the superior resources of all aspects and form a high-quality practical teaching platform.

Data Availability

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

Conflicts of Interest

The author declares no conflicts of interest.

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