Construction and Practice of Professional Group Training Base of Intelligent Construction and Management under the Background of Integration of Production and Education and Post Class Competition Certificate

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Abstract
This paper studies the construction and practice of intelligent construction and management professional group training base under the background of the integration of on-the-job course certification and production and education. Through the in-depth analysis of the current market demand and talent training status in the field of intelligent construction and management, a training base construction mode based on the integration of post class competition certificate and production and education is proposed. This model takes the practical project as the platform, combines the theoretical teaching with the practical operation closely, aims to comprehensively improve the students’ practical ability and comprehensive quality. The paper also introduces the concrete implementation plan and achievements of the training base construction in detail, and probes into the future development direction and challenges.

Keywords
Post Class Competition Certificate; Integration of Production and Education; Intelligent Construction; Training Base.

1. Introduction
With the rapid development of the field of intelligent construction and management, the status of the training base in college education has become increasingly prominent. In order to meet the industry’s demand for high-quality talents, colleges and universities have strengthened the construction of practical training bases for intelligent construction and management. The construction of training base is of great significance to the development of intelligent construction and management professional group in colleges and universities[1-4].

First of all, the training base can provide students with a real practice environment, so that students can better understand and master the knowledge and skills related to intelligent construction and management. Secondly, the training base can also provide teachers with teaching and scientific research support, help teachers better guide students, and improve the quality and effect of teaching. In addition, the training base can also promote school-enterprise cooperation, strengthen the combination of production, university and research, and train more high-quality talents for the construction industry[5-9].

In order to build a high quality training base, universities need to take a series of measures. First of all, it is necessary to strengthen cooperation with enterprises, understand the latest trends and needs of industry development, and ensure that the construction of training bases is in line with market demand. Secondly, it is necessary to strengthen the construction of teachers, improve the practical ability and teaching level of teachers, and provide better guidance and services for students. In addition, it is also necessary to strengthen equipment investment and technical updates to ensure that the facilities and equipment of the training base can meet the practical needs of students[10-13].
Post course competition certificate refers to the combination of post demand, course setting, skill competition and vocational qualification certificate through cooperation with enterprises to form a set of systematic talent training program. The integration of production and education is the combination of industry and education, through practical teaching and school-enterprise cooperation, improve students’ practical ability and comprehensive quality. In the field of intelligent construction and management, the construction and practice of training base under the background of the integration of post class competition certificate and production and education is of great significance. Through the construction of the training base, the real production environment can be simulated to improve the practical ability and skill level of students. At the same time, through cooperation with enterprises, we can timely understand the industry dynamics and market demand, adjust the talent training program, and improve the quality of talent training[14-17].

In short, the construction of training bases is an important direction for the development of intelligent construction and management professional groups in colleges and universities. Colleges and universities need to strengthen cooperation with enterprises, strengthen the construction of teachers, strengthen equipment investment and technology update, provide students with a better practice environment and teaching services, and train more high-quality talents for the construction industry.

2. Intelligent Construction and Management Professional Group Training base Construction Scheme

2.1. Construction Objectives

Based on the functional positioning of Wenzhou city, close connection with the transformation and upgrading of the construction industry, support the digital development of the construction industry, and promote the integration of resources and structural optimization within the professional group. With digital construction and other information technology as the characteristics to support Wenzhou's demand for future intelligent construction technical talents in the construction industry, reasonable planning from the four aspects of post class competition certificate, school-enterprise co-construction, digital architecture and intelligent construction, to cultivate high-quality intelligent construction technical and technical talents with professionalism, professionalism and craftsman spirit. To build a comprehensive training base integrating teaching, scientific research, practice and innovation with the guiding ideology of post class competition certificate and the integration of production and education.

2.2. Construction Content

(1) Hardware facilities: including intelligent construction and management-related experimental equipment, teaching instruments, simulation software, etc.

(2) Software resources: including course resources, teaching resource library, online learning platform, etc.

(3) Practical teaching: including course experiment, course design, comprehensive practice, innovation and entrepreneurship and other practical teaching links.

(4) School-enterprise cooperation: Cooperate with relevant enterprises to jointly carry out practical teaching, scientific research projects, technology research and development.

2.3. Construction Method

(1) Formulate construction plan: Formulate the construction plan of the training base according to the talent training objectives and the needs of the enterprise.

(2) Carry out school-enterprise cooperation: cooperate with enterprises to jointly invest resources and build training bases.
3. Practice of Intelligent Construction and Management Professional Group Training Base

3.1. Practical Teaching System
The practical teaching system of intelligent construction and management professional group training base includes course experiment, course design, comprehensive practice and innovation and entrepreneurship. Through practical teaching, students’ practical ability and comprehensive quality can be improved.

3.2. Implementation of Practical Teaching
(1) Course experiment: deepen students’ understanding and mastery of theoretical knowledge through experimental operation.
(2) Course design: Cultivate students’ innovative thinking and practical ability through course design.
(3) Comprehensive practice: Improve students' comprehensive application ability and problem-solving ability through comprehensive practice projects.
(4) Innovation and entrepreneurship: Cultivate students’ innovation and entrepreneurship spirit and teamwork ability through innovation and entrepreneurship projects.
(5) Post Course Competition Certificate: Through cooperation with enterprises, practical engineering projects are integrated into the curriculum, so that students can understand the development trend of the industry and master practical skills. At the same time, by participating in various competitions, students can enhance their sense of competition and teamwork spirit.
(6) Integration of industry and education: combining industry and education to achieve resource sharing and complementary advantages. Through cooperation with enterprises, colleges and universities can get more practical opportunities and resources, and improve the quality of talent training.

3.3. School-enterprise Cooperation Practice
The training base of intelligent construction and management professional group has established cooperative relations with a number of enterprises to jointly carry out practical teaching, scientific research projects and technology research and development. Through the practice of school-enterprise cooperation, students’ practical ability and comprehensive quality can be improved, and high-quality talents can be cultivated for enterprises.

4. Specific Implementation Plan
1. Make training plan: According to market demand and talent training objectives, make detailed training plan, including training content, time arrangement, personnel allocation, etc.
2. Construction of practical training site: According to the needs of the actual project, the corresponding practical training site shall be built, including hardware equipment and software environment.
3. Introduction of enterprise projects: Cooperate with enterprises to introduce practical engineering projects into the training base, so that students can learn and master skills in practice.
4. Construction of teaching staff: Strengthen the construction of teaching staff, introduce teachers with rich practical experience and teaching ability, and improve teaching quality.

5. Improve the management system: Establish a sound management system to ensure the normal operation of the training base and the safety of students.

5. Achievements and Challenges of Training Base Construction

5.1. Results
Through the construction of the training base, students' practical ability and comprehensive quality have been significantly improved, and the employment rate and employment quality have also been improved. At the same time, the cooperation between universities and enterprises is also closer, providing more resources and opportunities for talent training.

5.2. Challenges
In the process of the construction of the training base, we also face some challenges, such as capital investment, equipment renewal, and teacher team construction. In addition, with the continuous update of technology and changes in market demand, how to maintain the advanced nature and practicality of the training base is also a problem that needs to be solved.

6. Summary and Prospect
This paper discusses the construction and practice of intelligent construction and management professional group training base from the background of the integration of post class competition certificate and production and education. Through the construction of the training base and the implementation of practical teaching, students' practical ability and comprehensive quality can be improved, and high-quality talents can be cultivated for enterprises. In the future, we will continue to strengthen the construction of practical training bases and the reform of practical teaching to improve the quality of personnel training and the ability to serve the society.

In order to further improve the construction level and practical effect of the training base, the following aspects of work can be strengthened in the future: first, strengthen the in-depth cooperation with enterprises to jointly promote the innovation of talent training mode; Second, strengthen the construction of teachers, improve teachers' practical ability and teaching level; The third is to strengthen the updating and maintenance of equipment to ensure the normal operation of the training base and the safety of students.

With the continuous progress of technology and the constant change of market demand, the development prospect of intelligent construction and management professional group is very broad. In the future, we can further deepen the integration of production and education and strengthen the cooperation between schools and enterprises to promote the innovation and development of talent training mode. At the same time, we can also explore the application of advanced technologies such as virtual reality technology in the construction of practical training bases to improve the practical effect and teaching quality.

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References


