

# Construction of School-enterprise Integration of Electrical Engineering and Its Automation Professional Employment and Practice Base

Yiran Jiang, Xinwei Kou, Shuo Wang, Xinyu Wang

Baoding University of Technology, Baoding 071000, Hebei, China

**Abstract:** In the construction of modern electrical engineering and its automation major, through the integration of modern engineering education certification and management, strengthen coordination and unity, pay attention to school-enterprise integration, so that the current school education and training can meet the professional teaching requirements. By strengthening the construction of employment and practice base for electrical engineering and its automation major, a good education and management atmosphere will be formed. Through the teaching mode of school-enterprise cooperation, through the establishment of training base, cultivate the overall comprehensive ability of electrical engineering and automation. Participate in the construction ideas of the practical training base, so as to plan the scientific research of the whole practical training construction. Pay attention to practical activities, improve students' work experience, in the follow-up project construction process, can vigorously promote the construction and development of information technology.

**Keywords:** School-enterprise integration; Electrical engineering and automation professional employment; Internship base construction

**Preface:** The employment situation of electrical engineering and its automation major needs to carry out scientific construction and form a scientific training and education mode according to the students' practical and professional ability. With school-enterprise cooperation as the development focus, expand the key pilot education, can carry out efficient teaching and training mode, and improve the overall education and training technology. Through the construction of employment practice base, can improve the electrical engineering and automation professional technology, by expanding comprehensive education training measures, to ensure that students can under the innovation form of teaching, constantly strengthen their comprehensive ability, form a basic teaching management, promote the current management construction, maintain the stability of professional training.

## 1. Practical Teaching of Electrical Engineering and Automation

### 1.1 Current status of practical teaching reform

The teaching of electrical engineering and automation major cultivates students' professional ability through practical education. According to the construction work of national development, focus on the development of scientific research undertakings. In the teaching work of many professional schools should be paid to the construction of scientific education training methods for students. Under the systematic teaching system, to establish a practical training base for students. Therefore, through the integration of school-enterprise enterprises, we can conduct practical development to the greatest extent and deepen the educational reform<sup>[1]</sup>. Establish a training base for electrical engineering, so that students can master the professional ability, and maintain the subsequent construction ability in the theoretical comprehensive process. Learning innovation in the basic learning, to strengthen the students' theoretical learning knowledge. Due to the rapid development of modern technology, the students' electrical engineering and automation major some very important influence, by promoting the current engineering construction, can be comprehensive practice exploration, and can be unified practice, can in the professional social development, form the comprehensive development of the management, cultivate students to set up professional ideas, familiar with professional knowledge and practical operation process.

### 1.2 Problems existing in the process of practical teaching

(1) Electrician experiments and other teaching methods, can help students to complete the overall learning stage, so that students can lay a good professional foundation. However, the role of the laboratory to help students is limited, so in practical engineering projects, especially in the experimental design of the course, it may be difficult to meet practical standards, affecting students' practical practice.

(2) In the teaching environment, the school can strengthen the current comprehensive system reform. The school needs to work with the internship enterprise or the gold engineering enterprise unit, as a fixed internship unit, to help students constantly improve their engineering level, and can strengthen the current project research support, to help students to better curriculum practice.

(3) In the course design and students' learning needs after graduation, the background support for engineering projects or research projects, combined with the relevant course requirements, can connect with the reality, so that students can make positive changes according to the requirements of teachers. In the actual course design, the professional ability should be trained according to the current teaching guidance state, to show the overall development of electrical engineering and its automation level in the new era. And in the present stage of practical training, it can improve the professional level of students. Can make up for the lack of students' practical ability, so that students can fully strengthen their own professional ability. This way can also form a good help to the students' graduation works.

## **2. Implementation of the school-enterprise integration training mode**

### **2.1 Foreign school-enterprise joint teaching mode**

The teaching method of school-enterprise integration has played a very positive role in the training of professional talents. Through scientific teaching methods, it can effectively improve students' professional ability. And in the current stage of social development, students' professional level can be quickly improved. Make use of scientific teaching mode to deepen the overall teaching mode of vocational colleges.

(1) The American and Canadian model. The training mode is mainly taking basic education as the main teaching mode, hiring representative majors in the industry for guidance, and analyzing them according to the job needs, so as to clarify the professional level that this position should have<sup>[2]</sup>. 2.1.2 The UK and Australian model. The main mode of teaching is through the basic education training mode, combined with professional comprehensive teaching standards, set up the national qualification committee, and by determining the national vocational qualification certificate system, make the professional certificate can be issued according to the actual operation ability, and can through the way of unit curriculum, let students can get more education resources.

(2) The dual system model represented by Germany. The dual system is a school-running system jointly built by the school and enterprise supported by the state legislation. This is in vocational colleges, by teaching students with relevant expertise. And in foreign training in enterprises or some public areas. This main vocational teaching mode can strengthen the systematic education and training of students by cultivating students' professional knowledge.

### **2.2 Implementation mechanism of school-enterprise integration training mechanism**

The theoretical development and practice of electrical engineering and automation major can effectively promote the learning and development of students through systematic education and training activities. However, the current lack of professional ability may affect the cultivation of students' practical ability, and lead to the reduction of students' professional level. Therefore, in this case, applied talents should be trained, on the basis of modern theoretical teaching, by cultivating enterprise professional talents, enhance practical ability, make full use of social resources, and adhere to the school-enterprise combination, so as to make up for the related conditions of electrical engineering discipline, and improve the overall efficiency of running schools. The overall education and training mode of school-enterprise combination can be improved for the teaching deficiency of the school itself, so as to ensure the comprehensive education and training for students and form a good teaching management system. Electrical engineering and its automation major should adhere to this training strategy, understand the market changes, increase the reform efforts, so as to steadily improve the quality of teaching<sup>[3]</sup>. In addition, we can carry out joint inspection combined with other students, strengthen the joint running of high-and high technology and enterprises, establish employment internship and training bases, so that students can have the conditions to carry out practical training. According to the improvement of students' information technology, it can effectively enhance students' practical ability and strengthen the comprehensive management of the current environment, so as to explore a new development path of joint schools.

Conclusion: In a word, electrical engineering and its automation major talent training, through the establishment of practical training, education and training base, practical education and guidance for students, to help students can better enhance their own employment level, so that students can maintain the professional level, strengthen the basic ability training of students. By expanding the vision of the students, let the students can continue to learn and develop in their own learning field. Through school-enterprise cooperation, the school helps students with a closer joint market and implement scientific education and training strategies. Through practical training, the teaching system of hierarchical training courses is constructed and improved, constantly cultivate the students' actual participation, and gradually improve the overall fitness level of the teaching society. According to the education system of social development at the present stage, a perfect management mode can be formed, which can expand the training mode of talents in professional education. As an exploration mode of talent training, school-enterprise integration carries out higher education training, carries out continuous practice and reform, and will establish a practical training base as an advantage to promote students' employment.

## **References:**

- 
- [1] Shi Xiaoqiu. Curriculum teaching design and implementation following the professional certification OBE concept [J]. Research on Higher Engineering Education, 2018 (5): 154-160.
  - [2] Shi Xiaoqiu. Construction and practice of the engineering ability grading training mode of "three-level linkage between industry and learning" [J]. Research in Higher Engineering Education. 2017(5):66-71.
  - [3] Shi Xiaoqiu, Zhao Yan, Li Qiaokun. Thinking on the construction of a new engineering system of integrated, open and adaptive local colleges [J]. Higher Engineering Education Research, 2017 (4): 10-15.