

# Innovative Construction of Ideological and Political System of Course Group of Mechatronics Technology Specialty in Higher Vocational Colleges

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**Abstract:** This paper deeply discusses the construction of ideological and political education system in the course group of mechatronics major in higher vocational colleges. Clarify its importance lies in meeting the demand for talents in the development of manufacturing industry and implementing the fundamental task of cultivating people with morality. Analyze the current situation and point out problems such as insufficient teacher cognition and ability and low students interest in learning. Put forward construction strategies, including clarifying ideological and political goals and key points of educating people, building a digital resource library, construction a hierarchical, classified and phased education model, and building a "three-course linkage" education framework. Summarize the research conclusions and emphasize that the construction of ideological and political education system in the course group is a systematic project that requires joint efforts from multiple parties. Look forward to future research directions, such as deepening teacher training and development, strengthening the dominant position of students, expanding practical teaching channels, and improving The evaluation system.

**Keywords:** Mechatronics in Higher Vocational Colleges; Curriculum Group Ideology and Politics; Build Strategy.

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## 1. Introduction

### 1.1. Research Background

With the rapid development of Chinas manufacturing industry, mechatronics technology, as one of the core technologies of modern manufacturing industry, plays an important role in promoting industrial transformation and upgrading and improving production efficiency. As an important base for cultivating modern manufacturing talents, the construction of ideological and political system of mechatronics major in higher vocational colleges is of great significance [1].

On the one hand, building the ideological and political system of curriculum group is an inevitable requirement to implement the fundamental task of cultivating people with virtue. emphasized that all kinds of courses should keep a good canal, plant a good field of responsibility, and go in the same direction as ideological and political theory courses to form a synergistic effect. The course of mechatronics major in higher vocational colleges should not only impart professional knowledge and skills, but also cultivate students ideological and political accomplishment and professional ethics, and cultivate high-quality technical and technical talents with both ability and political integrity for the society.

On the other hand, there are some problems in the construction of ideological and political system of mechatronics courses in higher vocational colleges. For example, the integration of ideological and political elements in the curriculum is not deep and systematic enough, the teaching methods lack innovation and effectiveness, the integration of practical teaching and professional education is not enough, and the evaluation and feedback mechanism of ideological and political education is imperfect. These problems affect the overall improvement of students comprehensive quality and professional ability, and also

restrict the professional development and the improvement of talent training quality[2,3].

To sum up, it is of great practical significance to build the ideological and political system of mechatronics major course group in higher vocational colleges for improving the quality of talent training and meeting the needs of manufacturing development.

### 1.2. Purpose of the Study

The purpose of constructing the ideological and political system of mechatronics major course group in higher vocational colleges is to innovate the talent training mode and improve the quality of talent training. By organically integrating ideological and political education into professional curriculum groups, students professional ethics, social responsibility and innovative spirit can be cultivated, so that they can become high-quality technical and technical talents with both solid professional skills and noble ideological and political literacy.

On the one hand, with the rapid development of manufacturing industry, the demand for mechatronics professionals is increasing day by day, which not only requires them to master advanced technology and skills, but also requires them to have good professionalism and teamwork spirit. The construction of ideological and political system of curriculum group can help students establish correct professional views and values, enhance their sense of social responsibility and mission, and improve their professional competitiveness.

For example, according to relevant data, in manufacturing enterprises, employees with good ideological and political literacy and professional literacy are more likely to get promotion opportunities, and their career development prospects are also broader. Therefore, the construction of ideological and political system of curriculum group can lay a solid foundation for students future career development.

On the other hand, the construction of ideological and political system of curriculum group can promote the reform and innovation of professional teaching. By excavating ideological and political elements in professional courses, innovating teaching methods and means, and organically integrating ideological and political education with professional education, the effectiveness and attraction of teaching can be improved, and students learning interest and enthusiasm can be stimulated.

At the same time, a perfect evaluation and feedback mechanism of ideological and political education can keep abreast of students learning situation and ideological trends, and provide basis and reference for teaching reform. By continuously optimizing the ideological and political system of curriculum groups, we can improve the quality of talent training and provide strong talent support for the sustainable development of Chinas manufacturing industry.

## **2. Theoretical Basis**

### **2.1. Ideological and Political Connotation and Significance of Curriculum**

As an innovative educational concept and practice mode, curriculum ideological and political education is of great value to talent cultivation.

#### **2.1.1. The Connotation of Curriculum Ideology and Politics**

Curriculum ideological and political education refers to the integration of ideological and political education elements such as socialist core values, feelings of home and country, craftsman spirit, labor spirit, legal awareness, innovative spirit, etc. into all aspects of professional education in the teaching of other courses other than ideological and political courses. In the mechatronics major in higher vocational colleges, the ideological and political curriculum is to organically combine these ideological and political elements with the teaching of professional knowledge and skills, so that students can receive ideological and political education imperceptibly while learning professional knowledge. For example, when explaining the design and manufacturing of mechatronics equipment, the spirit of innovation can be introduced to encourage students to be brave in innovation and constantly explore new technologies and methods; In practical teaching, we can emphasize the spirit of labor, and cultivate students hard-working, down-to-earth and willing-to-work qualities.

#### **2.1.2. The Significance of Curriculum Ideology and Politics**

Ideological and political curriculum plays an important role in improving students comprehensive quality. On the one hand, ideological and political curriculum helps to cultivate students feelings of home and country. Taking the application of mechatronics technology in national defense industry as an example, by introducing Chinas achievements in the field of national defense equipment manufacturing, students national pride and patriotic enthusiasm are stimulated, so that they can realize their historical mission and contribute to the prosperity of the country. On the other hand, ideological and political curriculum can improve students professional ethics. In the teaching of professional courses, professional ethics such as honesty and trustworthiness, dedication and teamwork are integrated, so that students can establish correct professional views and values while learning professional knowledge. For

example, in the process of enterprise internship, students deeply realize the importance of professional ethics by personally feeling the culture and values of the enterprise, so as to consciously improve their professional ethics level. In addition, ideological and political curriculum is also conducive to cultivating students innovative ability. By guiding students to pay attention to the development of the industry, encouraging them to put forward new ideas and solutions, and stimulating students innovative thinking and creativity. According to statistics, in higher vocational colleges that implement ideological and political curriculum, the quantity and quality of students innovative projects have been significantly improved, which provides strong support for the technological innovation and development of enterprises.

## **2.2. Relevant Educational Theoretical Support**

### **2.2.1. Constructivism and Curriculum Ideology and Politics**

Constructivist learning theory holds that the learning process of knowledge is the process of knowledge construction, which advocates students initiative and independent construction[4,5]. In the construction of ideological and political system of mechatronics course group in higher vocational colleges, constructivism can be used to guide students to construct ideological and political cognition.

On the one hand, teachers can create situations, take the application cases of mechatronics technology in actual production as the background, and guide students to experience ideological and political elements such as socialist core values and craftsman spirit in the process of solving practical problems. For example, when explaining the case of an enterprise improving production efficiency through technological innovation, students are guided to think about the importance of innovative spirit and how to practice innovative spirit in their own study and future work. Teachers can also organize students to hold group discussions, so that students can jointly build their understanding of ideological and political elements in collaboration. In the group discussion, students can share their views and experiences and inspire each other, thus deepening their understanding of ideological and political elements.

On the other hand, teachers should be helpers and promoters for students to actively construct meaning. In course teaching, teachers can stimulate students thinking by asking questions and guidance, and help students organically combine ideological and political elements with professional knowledge. For example, when explaining the installation and commissioning of mechatronics equipment, teachers can ask students what qualities and abilities they need in this process, and guide students to think about the importance of ideological and political elements such as labor spirit and teamwork spirit. At the same time, teachers should give students feedback and evaluation in time, and encourage students to actively participate in the construction process of ideological and political cognition.

### **2.2.2. Application of Other Theories**

In addition to constructivism, there are other theories that can provide support for the ideological and political ideology of curriculum groups. For example, the theory of cognitive development emphasizes that students cognitive development is a process of gradual construction. In the ideological and political curriculum group, the content and teaching methods of ideological and political education can be rationally

designed according to students cognitive development level. For junior students, they can cultivate their basic professional ethics and patriotic feelings through lively and interesting cases and activities; For senior students, we can guide them to think deeply about the relationship between industry development and social responsibility, and cultivate their innovative spirit and sense of social responsibility.

In addition, social learning theory can also be applied to ideological and political ideology of curriculum groups. The theory holds that students can learn by observing and imitating the behavior of others. In the course teaching, the deeds of industry model figures can be introduced, so that students can learn from them excellent qualities such as dedication and innovation. At the same time, teachers can also lead by example, influence students with their own words and deeds, and set a good example for students.

In short, combining multiple theories such as constructivism, it can provide a solid theoretical basis for the construction of ideological and political system of mechatronics courses in higher vocational colleges, help students better build ideological and political cognition, and improve students comprehensive quality and professional ability.

### **3. Ideological and Political Status of Mechatronics Major Course Groups in Higher Vocational Colleges**

#### **3.1. Existing Ideological and Political Integration**

##### **3.1.1. Ideological and Political Embodiment in Curriculum Objectives**

In the curriculum objectives of mechatronics major in higher vocational colleges, ideological and political elements are gradually being reflected. For example, in the course of "Fundamentals of Mechanical Design", the course objectives not only include enabling students to master the basic principles and methods of mechanical design, but also focusing on cultivating students innovative spirit and rigorous scientific attitude. By guiding students to participate in mechanical design projects, they are encouraged to try new design ideas and cultivate innovative consciousness. At the same time, the accuracy of data and the rationality of the scheme are emphasized in the design process, and students rigorous scientific attitude is cultivated. In the course of "Electrical Control and PLC Technology", the course goal not only enables students to master electrical control and PLC programming skills, but also incorporates ideological and political elements such as teamwork and safety awareness. In practical teaching, students complete project tasks in groups and cultivate teamwork spirit. At the same time, the electrical safety operation specifications are emphasized to improve students safety awareness.

##### **3.1.2. Ideological and Political Integration of Teaching Content**

In terms of teaching content, teachers actively tap ideological and political resources and use them. For example, when explaining the development process of mechatronics technology, we introduce Chinas major achievements in this field, such as high-speed rail technology and intelligent manufacturing, to stimulate students national pride and patriotic enthusiasm. When explaining the mechanical manufacturing process, the deeds of craftsmen from big

countries, such as Gao Fenglin and other welding masters, are introduced, so that students can realize the connotation of craftsman spirit, that is, dedication, concentration, innovation and excellence. In practical teaching, students are arranged to participate in community volunteer service activities, such as repairing electrical equipment for the community, so as to cultivate students sense of social responsibility and service awareness. According to statistics, by integrating ideological and political resources into teaching content, students interest and participation in professional courses have been significantly improved, and students ideological and political literacy has also been enhanced.

#### **3.2. Existing Problems and Challenges**

Although the construction of ideological and political system of curriculum group has made some achievements, it still faces some problems and challenges.

##### **3.2.1. Insufficient Cognition and Ability of Teachers**

Some teachers have cognitive misunderstandings about ideological and political education in curriculum, and think that ideological and political education is the exclusive task of ideological and political teachers, which has little to do with professional curriculum teachers. This concept leads them to neglect the integration of ideological and political elements in the teaching process, and fail to give full play to the educational function of professional courses. In addition, when some teachers integrate ideological and political elements into professional courses, they copy them mechanically and fail to find a suitable breakthrough point, which makes ideological and political education out of touch with professional teaching and affects the teaching effect.

In terms of ability, some teachers lack the ability to tap ideological and political elements. They are not good at refining ideological and political themes from professional knowledge, and it is difficult to naturally integrate ideological and political education into teaching content. At the same time, some teachers lack innovation in teaching methods and cant effectively guide students to understand and accept ideological and political education. For example, when explaining the complex principles of mechatronics technology, teachers may simply impart knowledge, while ignoring the excavation and guidance of ideological and political elements such as innovative spirit and teamwork.

##### **3.2.2. Students Interest in Learning is Not High**

There are some problems in students acceptance of ideological and political integration courses. On the one hand, some students think that the main task of professional courses is to learn professional knowledge and skills, and they have resistance to ideological and political education. They think that ideological and political content has little to do with professional study, and it is an additional burden, thus lacking the enthusiasm for learning. On the other hand, the traditional ideological and political education methods may be boring and difficult to arouse students interest. For example, simple theoretical explanation and indoctrination teaching methods are easy to make students bored.

In addition, students individual differences also affect their acceptance of ideological and political integration courses. Different students have different learning interests, values and cognitive levels. Some students may be more interested in ideological and political content, while others may pay more attention to the improvement of professional skills. This requires teachers to adopt diversified teaching methods and means according to students characteristics, so as to improve

students acceptance of ideological and political integration curriculum. For example, through case analysis, group discussion, practical activities, etc., students can feel the charm of ideological and political education and improve their interest in learning.

## **4. Strategies for Building Ideological and Political System of Curriculum Groups**

### **4.1. Clarify Ideological and Political Goals and Educational Priorities**

The construction of the ideological and political system of the curriculum group should closely combine the characteristics of mechatronics major in higher vocational colleges, and define the specific ideological and political goals and educational focuses, so as to realize the organic integration of professional ability and ideological and political literacy.

#### **4.1.1. Combination of Professional Ability and Ideological and Political Literacy**

In mechatronics major in higher vocational colleges, the cultivation of professional ability mainly includes knowledge and skills in mechanical design, electrical control, automation technology, etc. Ideological and political literacy covers socialist core values, feelings of home and country, craftsman spirit, labor spirit, legal awareness, innovative spirit and other aspects. To combine the cultivation of professional ability with the improvement of ideological and political literacy, it is necessary to find the convergence point between them in the teaching process.

For example, in the mechanical design course, students can experience the innovative spirit and rigorous attitude of designers by analyzing excellent mechanical design cases while learning design methods and principles. Teachers can guide students to think. A successful design requires not only technical skills, but also a high sense of responsibility and mission to create value for society. In the electrical control course, students can understand the importance of the development of the electrical industry to the national economic construction in the process of mastering programming skills and electrical safety knowledge, and stimulate students patriotic enthusiasm and national pride. At the same time, through group cooperation, complete project tasks, and cultivate students team spirit and communication skills.

In addition, professional ability can be combined with ideological and political literacy through practical teaching. For example, organize students to participate in enterprise internships or project practices, so that students can feel the importance of professional ethics and professional norms in actual work. In the process of practice, students can not only improve their professional skills, but also cultivate the qualities of hard work and courage.

#### **4.1.2. Determination of Educational Priorities**

The key educational direction of ideological and political curriculum group should include the following aspects:

First of all, cultivate students craftsman spirit. Mechatronics technology requires students to have exquisite skills and rigorous attitude, which is highly consistent with the connotation of craftsman spirit. By introducing the deeds of craftsmen from big countries, such as Gao Fenglin and other welding masters, students can experience the craftsman

spirit of dedication, concentration, innovation and excellence. In the teaching process, teachers can cultivate students patience and care by strictly requiring students practical operation, so that students can develop the quality of pursuing excellence.

Secondly, strengthen students innovative spirit. With the continuous progress of science and technology, mechatronics technology is also constantly innovating and developing. Cultivate students innovative spirit and help them adapt to the development needs of the industry in their future jobs. Teachers can stimulate students innovative thinking and creativity by guiding them to participate in scientific and technological innovation projects and holding innovation competitions. At the same time, the latest scientific and technological achievements and innovative cases are integrated into the teaching content, so that students can understand the development trend of the industry and cultivate students innovative consciousness.

Thirdly, enhance students sense of social responsibility. Mechatronics technology plays an important role in promoting industrial transformation and upgrading and improving production efficiency. As future technical talents, students should have a strong sense of social responsibility and make contributions to the development of society. By organizing students to participate in social service activities, such as repairing electrical equipment for the community and carrying out popular science propaganda, students can realize that their professional knowledge can bring value to the society, thus enhancing their sense of social responsibility.

Finally, pay attention to cultivating students team spirit. Mechatronics projects often require the collaboration of people from multiple professional fields. In the teaching process, students teamwork ability and communication ability can be cultivated through group homework and project practice. Let students learn to respect others, listen to opinions, divide work and cooperate, and complete tasks together.

To sum up, it is an important foundation for building the ideological and political system of mechatronics courses in higher vocational colleges to clarify the ideological and political objectives and educational focus. By combining the cultivation of professional ability with the improvement of ideological and political literacy, and determining the key education direction, it can provide a strong guarantee for the cultivation of high-quality technical and technical talents.

### **4.2. Building a Digital Resource Library**

Digital resource database plays an important supporting role in the construction of ideological and political system of mechatronics course group in higher vocational colleges. It provides rich ideological and political education resources for teachers teaching and students learning, and helps to improve the effectiveness and attractiveness of ideological and political curriculum.

#### **4.2.1. Content and Form of Resource Library**

The content of the resource library should cover multiple aspects. First of all, it includes ideological and political cases related to mechatronics major, such as my countrys major achievements in the field of mechatronics and deeds of industry model figures, etc. For example, we can collect successful cases of mechatronics application in Chinas high-speed rail technology, show Chinas strength in scientific and technological innovation, and stimulate students national pride and patriotic enthusiasm. At the same time, it includes the outstanding contributions of craftsmen from big countries

in the electromechanical industry, such as how they overcome technical problems through exquisite skills and professionalism, so that students can deeply understand the connotation of craftsman spirit.

Secondly, the resource library should also contain multimedia teaching resources, such as videos, animations, pictures, etc. These resources can more vividly display ideological and political content and improve students interest in learning. For example, make a video about the manufacturing process of mechatronics equipment to show the rigorous working attitude and teamwork spirit of the workers; Use animation to demonstrate the innovative development process of electromechanical technology and stimulate students innovative thinking.

The presentation forms of the resource library should be diversified, which is convenient for teachers and students to use. An online resource platform can be set up, and teachers and students can access and download resources anytime, anywhere. The platform should have the function of classification and retrieval, so that users can quickly find the required resources. At the same time, resources can be made into courseware, micro-courses and other forms, which is convenient for teachers to use in classroom teaching.

#### **4.2.2. Application and Update of Resource Library**

In teaching, teachers can make full use of digital resource library to enrich teaching contents and teaching methods. For example, when explaining professional knowledge, ideological and political cases in the resource library should be introduced in due course, so that students can receive ideological and political education while learning professional knowledge. Teachers can also organize students to watch multimedia resources such as videos and animations in the resource library, and then conduct group discussions or write their experiences to deepen students understanding of ideological and political content.

In order to ensure the effectiveness and timeliness of the resource library, it is necessary to establish a perfect update mechanism. On the one hand, teachers can constantly supplement and improve the content of the resource library according to the actual teaching situation and students feedback. For example, when new industry model figures or major technological breakthroughs appear, timely incorporate relevant content into the resource library. On the other hand, students can be encouraged to participate in the construction of the resource library, so that students can share their ideological and political cases or experiences in practice, and enrich the content of the resource library.

According to statistics, in classes that use digital resource library for ideological and political teaching, students learning interest and participation have been significantly improved, and their understanding and acceptance of ideological and political content have also been significantly improved. By building a digital resource database and constantly improving its application and update mechanism, it can provide strong support for the construction of ideological and political system of mechatronics courses in higher vocational colleges.

### **4.3. Constructing an Educational Model**

#### **4.3.1. Characteristics and Advantages of the Model**

The hierarchical, classified and phased education mode has the following characteristics and advantages:

1. Strong pertinence: According to students different levels, types and learning stages, targeted ideological and political

education is carried out. For students with weak foundation, we can focus on cultivating their professional quality and labor spirit in the early stage, and help them establish correct learning attitude and professional concept. For students with strong learning ability, we can guide them to think deeply about innovative spirit and social responsibility, and stimulate their innovative thinking and sense of responsibility.

Second, good systematicness: This model divides the process of educating people into different stages, each stage has clear goals and tasks, which makes ideological and political education more systematic and orderly. From professional cognition and moral education at the entrance stage, to professional knowledge and ideological and political integration education at the middle stage, and then to career development and social responsibility education at the graduation stage, students ideological and political literacy will be gradually deepened.

Third, high flexibility: it can be flexibly adjusted according to different teaching needs and students characteristics. For example, in terms of classification, students can be divided into different types such as technology research and development, manufacturing, equipment maintenance, etc. according to their interests and career plans, and corresponding ideological and political education contents and practical activities can be provided for different types of students.

#### **4.3.2. Implementation Case Analysis**

Taking mechatronics major in a higher vocational college as an example, remarkable results have been achieved in the process of implementing the hierarchical, classified and staged education mode.

In terms of stratification, individualized teaching plans are formulated for students with different learning bases. For students with poor foundation, special tutoring courses are offered, focusing on strengthening basic knowledge and skills, and cultivating their learning confidence and teamwork spirit. Through group learning and mutual assistance, students can realize the strength of the team in common progress. For example, in the practical teaching of electrical control courses, students with weak foundations are formed into small groups, and teachers and outstanding students are instructed to help them complete project tasks. In this process, not only the students professional skills are improved, but also their communication skills and teamwork spirit are cultivated.

In terms of classification, students are trained according to their interests and career plans. For students who are interested in technology research and development, organize them to participate in scientific and technological innovation projects and competitions, and cultivate their innovative spirit and practical ability. For example, an electromechanical innovation studio was set up to provide these students with special experimental equipment and instructors, and encourage them to carry out independent innovation research. For students who prefer manufacturing, arrange them to practice in enterprises, gain an in-depth understanding of production processes and quality management requirements, and cultivate their professionalism and sense of responsibility. During the internship, the students personally felt the companys strict requirements for product quality and the professional attitude of employees, and deeply realized the importance of craftsman spirit.

In terms of stages, professional cognitive education and career planning guidance are mainly carried out in the admission stage, and enterprise experts and outstanding

graduates are invited to give lectures in the school, so that students can understand the development prospects and career requirements of mechatronics major and set clear learning objectives. In the intermediate stage, ideological and political education is integrated into professional course teaching, and students are guided to think about the combination of professional knowledge and ideological and political elements through case analysis and group discussion. For example, in the mechanical design course, the case of environmentally friendly design is introduced, so that students can discuss how to embody the concept of sustainable development in the design process and cultivate students sense of social responsibility. At the graduation stage, we pay attention to career development and social responsibility education. By holding employment guidance lectures and social practice activities, students can understand industry trends and social needs, and prepare them to enter the workplace smoothly.

Through the implementation of the hierarchical, classified and phased education mode, the students majoring in mechatronics in this higher vocational college have been significantly improved in professional skills and ideological and political literacy, and the graduates have been widely praised by enterprises.

#### **4.4. Building an Educational Framework**

##### **4.4.1. Framework Composition and Function**

The "three-course linkage" education framework consists of ideological and political courses, professional courses and practical courses. As a guide, ideological and political course aims to cultivate students correct world outlook, outlook on life and values, so that students can truly understand ideological and political contents such as socialist core values and feelings of home and country, and lay an ideological foundation for students growth. Professional courses are the core, and ideological and political elements are organically integrated into professional knowledge teaching. For example, in mechatronics professional courses, when explaining the major achievements in Chinas electromechanical field, students national pride and patriotic enthusiasm are stimulated, so that students can improve their ideological and political literacy while learning professional knowledge, so that professional courses can "become popular" and students can really drill. Practice class is the key. Through practical activities, such as organizing students to participate in enterprise internship and community volunteer service, students can apply what they have learned to practice, cultivate students labor spirit, teamwork spirit and social responsibility, and make practical class "move" and make students really use it.

The function of this educational framework is to realize all-round education. Through the linkage of ideological and political courses, professional courses and practical courses, the separation of ideological and political education from professional education in traditional teaching is broken, so that students can receive ideological and political education imperceptibly in the process of learning professional knowledge, and improve their comprehensive quality and professional ability. At the same time, this educational framework also helps to cultivate students innovative spirit and practical ability, and meets the demand of modern manufacturing industry for high-quality technical and technical talents.

##### **4.4.2. Practical Effect of the Framework**

In teaching practice, the educational framework of "three courses linkage" has achieved remarkable results. On the one hand, students learning enthusiasm and initiative have been improved. The vivid teaching of ideological and political course makes students have a deeper understanding of ideological and political content and stimulates their interest in learning. The integration of ideological and political elements in professional courses makes students realize the importance and significance of professional learning and enhances their learning motivation. The rich activities of practical class make students feel the value of professional knowledge in practice, and improve their practical ability and innovative consciousness.

For example, in the teaching of mechatronics major in a higher vocational college, through the implementation of the "three-course linkage" education framework, students actively participated in the discussion in ideological and political courses, and had a deeper understanding of the socialist core values. In the study of professional courses, students actively explore the combination of professional knowledge and ideological and political elements. For example, in the mechanical design course, students put forward many innovative design schemes, which also embodied the concepts of environmental protection and sustainable development. In practical classes, students actively participate in corporate internships and community service activities, which not only improve their professional skills, but also cultivate team spirit and social responsibility.

On the other hand, the employment competitiveness of graduates has been improved. Enterprises prefer graduates with good ideological and political literacy and professional skills. According to statistics, the employment rate and employment quality of graduates majoring in mechatronics in higher vocational colleges who implement the "three courses linkage" education framework are obviously higher than those of other similar majors. The professionalism, innovation ability and teamwork spirit shown by graduates in their work have been highly praised by enterprises.

To sum up, the "three-course linkage" education framework has played an important role in the construction of ideological and political system of mechatronics courses in higher vocational colleges, and provided a strong guarantee for cultivating high-quality technical and technical talents.

## **5. Conclusion**

This paper makes an in-depth study on the construction of ideological and political system of mechatronics major course group in higher vocational colleges, and achieves the following main results.

First of all, the importance and necessity of the construction of ideological and political system of curriculum group are clarified. Secondly, it deeply analyzes the current situation of ideological and political courses of mechatronics in higher vocational colleges. Then, it puts forward the strategy of constructing the ideological and political system of curriculum group.

In short, the construction of ideological and political system of mechatronics major course group in higher vocational colleges is a systematic project, which requires the joint efforts of schools, teachers and students. By constructing the ideological and political system of curriculum group, it can provide a strong guarantee for cultivating high-quality

technical and technical talents and contribute to the sustainable development of China's manufacturing industry.

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