

The Implementation and Effect of Ideological Politics in the Course of Sensor and Detection Technology

Wenjing Zhang

Shenyang Institute of Technology, Fushun, Liaoning, 113122, China

Abstract

In the sensor and detection technology courses to join the ideological and political elements, guide the students will be personal future and national development together, firm ideals and beliefs, inspirational study hard, actively into practice, constantly stimulate them into the socialist cause of great enthusiasm. Through the implementation of ideological and political courses, great results have been achieved, which has played a huge role in promoting the students' national pride and the dream of becoming a powerful country in science and technology.

Keywords

Sensor; Curriculum Ideology; Science and Technology Power.

1. Introduction

General Secretary Xi Jinping stressed at the National Conference on Ideological and Political Work in Colleges and Universities that "classroom teaching should be made good use of as the main channel, ideological and political education should be strengthened through improvement, affinity and pertinence of ideological and political education should be enhanced, and students' growth and development needs and expectations should be met". This requires us to strengthen the ideological and political education in colleges and universities, to grasp the core link of curriculum reform, give full play to the role of classroom teaching as the main channel and main position in education, focus on ideological and political education throughout the basic teaching, focus on teaching and educating people always in mind, long-term persistent unremitting.

To enhance the pertinence and effectiveness of ideological and political education for college students, the core is to firm up ideals and beliefs. To strengthen the pertinence of ideological and political education for college students is to deepen the education of socialism with Chinese characteristics and arm the minds of college students with the theoretical system of socialism with Chinese characteristics. Enhance college students' ideological and political education effectiveness, is to make college students "learn and understand really, really, with", increasing their theory of identity, political identity and emotion recognition, with the national prosperity and rejuvenation, the people's happiness "China dream" cohesive forces, guides them to combine personal future and national development, firm the ideal faith, self-help to study hard, Actively engaged in practice, and constantly stimulate their great enthusiasm for the cause of socialism. Deepening the propaganda and education of socialism with Chinese characteristics and the Chinese Dream and strengthening ideals and beliefs are the core contents of enhancing the pertinence and effectiveness of ideological and political education for college students.

With the development of the Internet of Things, artificial intelligence and other technologies, sensors have become ubiquitous. With the rapid growth of sensor market demand, the trend of diversified development continues, and new requirements are put forward for the teaching methods of sensor and detection technology courses. Xi Jinping pointed out, do a good job in ideological and political work in colleges and universities, with a good classroom teaching the main channel, to adhere to in the improvement of ideological and political theory to strengthen

and improve ideological and political education and targeted affinity and meet the demand of students' growth development and look forward to, other each lesson is to keep a canal, a kind of good responsibility farmland, make all kinds of courses with the direction of ideological and political theory, Form synergistic effect. Aiming at the education requirements of the state, we will teach professional knowledge of sensor courses and train qualified socialist builders and successors.

2. Ideas and Measures

The sensor and Detection technology course focuses on achieving the goal of "establishing virtue and cultivating people" through the whole-view perspective and system theory approach. Concrete curriculum ideological and political reform measures will be carried out from the following aspects.

① Give full play to the main role of professional teachers in educating students and release the ideological and political connotation of professional courses

Sensor and detecting technology of course education want to both technical and spreading of faith, sensor and testing technology course goal is to cultivate qualified socialist builders and successors, and therefore, insist on khalid ents on the teaching content, through the sensor used in aerospace, high-speed rail, made in China 2025, daily supervision, prevent ahead of application cases, Give full play to the moral education function of the course, make the students feel the strength of the motherland, feel the historical mission they shoulder, and strive to become professional talents. Professional teachers give full play to the active main body role in the teaching goal, curriculum, teaching content continuously perfect, in the content about, through the integration of teaching ideas, guide students to "love, dedication", fully focused on students to analyze problems, solve the problem, the cultivation of innovation ability, the greatest degree of mining education connotation.

② Integrate socialist core values into the curriculum, and cultivate technical talents with craftsman spirit

We should firmly establish the concept of "ideological and political education in curriculum" and carry forward core socialist values throughout the whole process of education and teaching. The development of sensor technology in China has gone through decades of research and development, only to form a series of systems of sensor design, research and development, manufacturing, production and application. A complete range of sensors basically meet 80% of the needs of the domestic market, and some of the sensor research and development and production are in the world's leading level. It has laid the foundation for China's leading position in some scientific and technological products, such as aerospace technology, unmanned aerial vehicles, intelligent terminals and so on. Introduce the remarkable achievements made in the development of sensor technology in China to students, and stimulate the core values of society and craftsman spirit of students.

③ Increase the proportion of practical teaching and cultivate students' professional dedication
In order to cultivate students' professional dedication and professional dedication, we emphasize the cultivation of application ability as the core. In the course, we strengthen the cultivation of students' practical skills through the teaching method of project teaching + task-driven combination of reason and practice. Combined with the current national strategy document to implement manufacturing power, Made in China 2025 is the program of action for the first decade of China's implementation of manufacturing power strategy, the application of sensors in the field of advanced manufacturing is the inevitable trend of the development of the current manufacturing industry, can realize the intelligent and modernization of manufacturing production. Sensor technology to adapt to the development need of the target are: improve the stability, reliability and precision of the sensor detection technology level, enhance the

competitiveness of the core technology, to develop in the direction of miniaturization, intelligence, the latest new material, new technology and the combination of sensor technology, to develop innovative sensors, support and help of 2025 made in China.

④ Introduce the innovation design link, train students to innovate tripod so the value pursuit In the practice teaching link, in the interpretation of the principle of the existing sensors, detection applications, on the basis of arousing students' innovation consciousness, innovation ability training, guide the student in order to improve the productivity of manufacturing companies (or reduce running time and quality, reduce product cost, applying sensor as reliably as possible to a variety of on-site production, complete functions, To train students to observe things, think about problems, self - design, research and solve problems quality. If conditions permit, students can analyze and solve problems in part of the teacher's research project, so as to cultivate students' value pursuit of innovation.

⑤ Group learning competitions will be held to cultivate students' team spirit of sincere cooperation and professional fashion of hard study

Group learning competition is carried out. Students in the class are divided into several cooperative groups in the teaching process of sensor and detection technology. The practical teaching objectives of sensor application in enterprises are designed into several units requiring cooperation, forcing students to cooperate. The students' learning attitude, learning discipline, thinking mode, classroom questioning, experimental operation and report, quizzes, examinations and other links are evaluated and assessed in the course goal completion process, so as to cultivate students' team spirit of sincere cooperation and professional fashion.

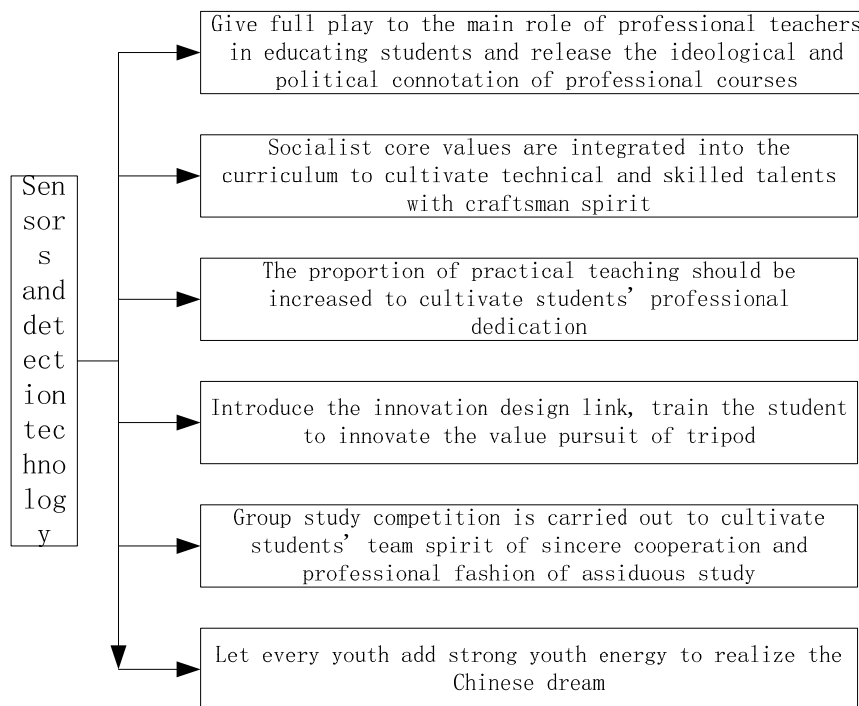


Figure 1. Ideological and political teaching ideas and measures

⑥ Let every young person add strong youthful energy to the Realization of the Chinese Dream With the development of the Internet of Things, artificial intelligence and other technologies, sensors have become ubiquitous. It is widely used in industrial transportation, national defense, scientific research and other fields. McKinsey report pointed out that by 2025 the development of the Internet of things will produce the economic benefits of \$2.7 to \$6.2 trillion, the economic benefits of such leave the sensor data acquisition in the Internet of things, it also drew a wider

space to the development of sensor, as the development and application of sensor technology will play an important role in industrial development. General Secretary Xi Jinping stressed that striving to realize the Chinese dream of the great rejuvenation of the Chinese nation is the theme of the Chinese Youth Movement. We need to carry out in-depth education and practice activities with the theme of "My Chinese Dream" among young people, so as to sow and ignite dreams for every young person, so that more young people have the courage to dream, have the courage to pursue their dreams, and work hard to realize their dreams, so that every young person can add strong youthful energy to the realization of the Chinese dream.

The ideological and political teaching ideas and measures are shown in Figure 1.

3. The Innovation Point

The innovation of ideological and political teaching reform of this course mainly includes the following aspects:

The main idea of ideological and political teaching reform of Sensor and Detection Technology is to introduce ideological and political elements into the teaching process, organically decompose the core content of ideological and political education into each chapter of the course, and fully reflect the function of each lesson not only teaching but also educating people. The curriculum will be ideological and political education is divided into three levels, summed up as "three ones": a flag -- the heart of the national flag; A beginner's mind -- to establish ideals and beliefs; A persistence - to develop action. Through a variety of teaching methods, increase students' participation, stimulate interest, in order to achieve good results.

Implementation of Sensor and Detection Technology course based on Curriculum Ideology and Politics:

(1) The core content of ideological and political education is organically decomposed into each chapter of the course, fully reflecting the educational function of each lesson. The ideological and political elements are introduced into the classroom with practical cases as the breakthrough point.

According to the chapters of the course arrangement sensor and detection technology and the characteristics of the chapters, carefully selected case as a breakthrough point, the ideological elements organic combination with professional knowledge, and make students in learning professional knowledge at the same time, gradually increase interest in learning, set up the correct outlook on life actively, make the ideological education and professional education coordination synchronization.

(2) Adopt multi-level and diversified methods to improve students' participation and truly realize the teacher-led and student-centered teaching mode. The teaching content is modular, and ideological and political content is solidified into modules. The content to be taught in the course is divided into multiple modules, and each module highlights the key points, so that there are objects, theories, analysis and summary. At the end of each module, students will have a clear understanding.

4. Effect of Education

The results of education are mainly reflected in the following aspects:

(1) Teachers of specialized courses should take curriculum ideological and political reform as an opportunity to identify the meeting point of ideological and political education and sensor application technology course, establish the inherent relationship of "generative", and complete the curriculum design of "sensor + Ideological and political course" containing ideological and political elements. Help students to increase their knowledge, firm ideals and

beliefs, build patriotism, strengthen moral cultivation, cultivate the spirit of struggle, and enhance their comprehensive quality.

(2) During the development of sensor technology in our country has the remarkable achievements introduced to students, emphasize the development and application of sensor without spirit, the national excellent culture, history, science and technology achievements, professional spirit, the collective sense of honor, such as core elements, so that the students in learning professional knowledge and instill the education of socialist core values.

(3) Improve the practical teaching proportion of practical teaching proportion, let students know the sensor in practice, learning sensor. Let the students realize that only professional focus on thinking and practice, can find the difference between different sensor technology level, reliability and application level, develop innovative thinking, through the knowledge to improve the performance of the sensor, in order to train the professional dedication of students.

(4) In the course of teaching, sensors can be widely used in social development and human life in various fields, introduce how the main ways and means of obtaining information in the field of nature and production are respectively generated. These materials are of great benefit to the cultivation of students' creative consciousness.

(5) In the ideological and political process of sensor and detection technology course, innovative applications of sensors in China's industrial field are constantly introduced, including: On the robot application of a large number of sensing devices, in electronic manufacturing line of vision sensing equipment application, application in food detection sensors to collect data of food, such as temperature, position, and our country in the field of aerospace and high iron for the attention of the world's invention patent and monitoring systems or instruments, Will stimulate students to learn enthusiasm and patriotism education together, encourage students to learn sensor and detection technology courses, in the future in industrial production, to achieve the Chinese dream to add a strong youth power.

(6) Safety awareness and self-protection ability are necessary qualities and skills for students to enter the society. Professional course teaching to prevent injury accidents, to prevent electric shock, abrasion and equipment damage. Each link, first of all, make clear the possible consequences of injury and the danger faced, carry out safety education throughout, can effectively cultivate students' safety awareness, improve safety ability, and lay a foundation for the future to the workplace.

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