

Research on International School-running model of Higher Vocational Colleges-Taking Jinan Engineering Vocational Technical College as an Example

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Abstract: Jinan Engineering Vocational Technical College adheres to the development goals of “Shandong demonstrative, domestically first-class, and internationally known “higher occupation college”; persists in the principle of “education as the foundation, open innovation, pursuit of the highest quality and services development”; implements the internationalization education and improves standard for running a school; broadens open education vision actively; carries out various forms of exchanges and cooperation with Malaysia, Australia, the United States, Canada, Germany, Korea and Taiwan education institutions; promotes project design; innovates school system of specialty construction, course standard, teacher training and student communication; carries forward the internationalization process of school-running; serves the “Belt and Road” Initiative and steps a high-quality way.

1. Institute’s General Situation and Internationalized Basic Information

Jinan Engineering Vocational Technical College is a full-time higher vocational education institution, which has a 50-year history, located in Jinan, hometown of Confucius; it is one of the “top 50 vocational schools in Asia Pacific in 2018.” The college has more than 500 faculty members; 11,000 full-time students; 7 specialty groups that including civil engineering, construction engineering management, business services, environmental art engineering, modern information technology, intelligent manufacturing and rail traffic; 35 students majors. After years of rich experience in education, college consummates the top-level structure for education and enriches the connotation of talent cultivation model; has passed the “talent cultivation work evaluation”, and won the honorary like “double excellent” of “moral education and campus civilization construction work evaluation” and “The outstanding unit of distinctive prestigious school construction projects” in Shandong province.

The college pays attention to international exchange and cooperation; has established friendly cooperative relations with 39 universities or education institutions in 18 countries and regions. At present, 20 teachers hold the Australian TAE4 international professional qualification certificate; establishes “the Belt and Road Maritime Silk Road education exchange center” with Rulai University of Malasia, “Chinese traditional culture education exchange practice center” with Siam University of Thailand, training center with German HWK, and carry out high skills assessment; hold China-Australia cooperative accounting program with the Queensland TAFE institution; carry out joint cultivation of “upgrade from junior student to mater student” with 8 colleges in Malasia; More than 150 students who are from Malasia, Ukraine and other countries come to our college for study since 2017; internationalized school running experience has been promoted as typical case by Education Department of Shandong province.

2. Clear Educational Ideas, Improve international Cooperation and Exchange System

Internationalization is an important direction for a high-quality vocational college construction reform and development. College develop cooperation with those countries (regions) that own higher vocational education, such as Germany, Australia, Taiwan; it surveys higher vocational education in

world view; cultivates skills talents in international standard; it adopts innovative talent training mode; gives play to a core professional advantages; expand cooperation in running schools project; introduces high-quality vocational education resources; constructs teacher team with international vision and multi-type students exchange system; based on local sustained development, it builds talent training center; services “the Belt and Road Initiative”; explores and cultivates skilled talents corresponding to Chinese enterprises the “going out” strategy.

College issued a Suggestion on Speeding up the Internationalization Process of Jinan Engineering Vocational Technical College, and improved the leading group of foreign affairs; held international education seminars, and studied major international exchange and cooperation projects and foreign affairs work.

3. Introduce Overseas Quality Resources, Deepen Chinese-Foreign cooperation Running School

Each affiliated college at least sets up partnership with one foreign college; they work together from talent training scheme, course construction, team construction, international certification, and skills contest construction; introduces 2 professional standards, 2 international certification, and 23 courses for 7 specialty groups; develop international teaching resources and improves the internationalized talents cultivation ability.

Civil construction and construction engineering management specialty groups cooperation with Taiwan Science and Technology University; communicates the latest professional standards, industry standards, post standards, and post practice process, signs research joint projects agreements on BIM technology and fabricated construction technology with foreign school; promotes the professional in line with the world and applies international certification exam outline into curriculum system and course content.

Intelligent manufacturing specialty groups rely on college to construct Siemens intelligent manufacturing advanced technology demonstration center, Kone elevator north training center and Industrial robot application training center; organizes the professional teachers to study three training courses of German Siemens PLC series s7-200 Smart, s7-1200 and s7-1500, and obtains the international certification. College uses high-quality training and teaching resources of well-known international enterprises such as Siemens, ABB robotics and Kone elevator; embeds Siemens PLC, ABB robotics and Kone elevator certification courses in specialty groups course system, and introduces international course standards into the course teaching and assessment system, which optimizes the course system.

Commercial and trade services takes accounting major projects of China-Australia cooperation in running school as its carrier; borrows and absorbs TAFE mode high quality resources; carries forward reform of accounting professional talent training mode and takes it as the "experimental field"; radiate drives other professional talent training mode reform and promotes teaching standards and education quality.

The logistics management held the "Sino-us International Course for Highly Skilled Logistics talents" with Sino-us Logistics Federation; introduces the international logistics talents ALEP education training system; establishes the Chinese-Foreign industry cooperation platform; implements teachers' domestic and overseas training and students' overseas internship and practice project.

4. Form Overseas Long-term Mechanism, and Build International Teacher Team

The internationalized teaching staff is the basic guarantee of training internationalized technical talents, carrying out internationalized training is one of the important ways to improve the ability of internationalized teaching staff. The college has invested special funds to support teachers' overseas education and training. Since 2015, the school has sent more than 110 teachers to higher vocational like Taipei Education University, Chienkuo Technology University, Lunghwa University of Science

and Technology, Shu-Te University, Da-Yeh University for training; holds seminar for “management cadre innovation and development and Sydney agreement experience sharing”, “results -oriented teaching, OBE course, Sydney agreement and engineering technology certification”; organizes more than 30 professional leader for training in Germany, Australia, the United States and other countries; let everyone know the German "dual system", Australia TAFE mode, American community colleges from international perspective, which broaden ones' vision, expand thinking and promote construction work of institution education teaching, school-enterprise cooperation, technology development, social services and creative innovative. The college encourages outstanding young and middle-aged backbone teachers to apply for national and Shandong government-sponsored overseas study programs and overseas Chinese volunteer programs actively; encourages teachers to participate in the internationally renowned professional qualification certification test, and obtains the corresponding project technical training ability. There are more than 30% full-time teachers who have overseas research and training experience, which has created a number of international backbone teachers who can truly carry out dialogues, communication and exchanges with international counterparts, it could better serve the teaching, scientific research and management of the school.

5. Introduce the “Sydney Agreement” Paradigm, Carry Out Professional International Certification

In 2017, college signed a contract with MYCOS Data in accordance with “Sydney Agreement” Paradigm and carries out professional construction and services project; built construction engineering technology and mechatronics-technology these two key construction majors' cultivated international engineering technical talents who have international vision, familiar with international rules, master international rules and can participate in international competition. College adopts professional international standard; introduces international engineering education certification, which fits the development goals of institution opened internationalization education, this is the beneficial trial that school introduces "extended mind" and "brain" in combination with collaborative innovation actively. It is of great significance to promote the application research of the localization and school-based of the "Sydney agreement" and promote to get know the engineering education international certification. This project makes the learning research practice of “Sydney Agreement” integrates into “result-oriented “teaching reform, teaching diagnosis and pilot program, which open a new journey from special to high quality for institution; improves professional; sets up a new vocational education mode with the characteristics of the college, and accelerates the internationalization.

6. Serve "the Belt and Road " Initiative to Improve the Output Ability of Skilled Personnel

Actively respond to the national “the Belt and Road” initiative, strengthen the links with the Shandong international contract labor association, and cooperate with the “going out” development strategy of a large and well-known general contractor of fabricated construction engineering in Jinan city. In order to serve the overseas development of construction enterprises, cultivate technical and skilled talents adapted to the “going out” of Chinese construction enterprises, promote overseas internship and employment of students, and provide talent guarantee for overseas Chinese-funded enterprises. At the same time, the college joined the “One Belt and One Way” vocational education alliance in 2017, and applied to join the “China-CEEC Higher Education Institutions Consortium” and the “World Federation of Colleges and Polytechnics” in 2018. Use the high-level platform established by the association to carry out experience exchange and cooperation with developed countries in vocational education, and share the latest achievements, development trends and practical cases in the field of higher vocational technology education. In addition, participate in professional seminars or international vocational education exhibitions to stimulate the vitality of international school running.

In order to solve the language problem of students' internship abroad, established an IELTS training center on campus in cooperation with Ma Zhong Education Development Association and hired foreign teachers, so as to widen the passageway for students' development and enhance their employment adaptability and development potential.

Give full play to the advantages of architecture and garden specialty, and cooperate with Thailand Bangkok vocational education center, Tang Feng Chinese education technology co., LTD. According to the mode of "Chinese + Culture + Specialty + Industry", establish the Thai branch of Jinan institute of engineering and technology, and conduct education and vocational education training in accordance with the mode of "Internet + International Vocational Education".

In order to cooperate with the "going out" enterprises, established three student internship and employment bases in foreign countries in cooperation with Oubo International Company, China Railway Tenth Groupe and China Construction Eighth Engineering Division, etc. In this way, technical training and Chinese language training will be carried out for local employees, the scale of overseas employment of students will be expanded, and intellectual support will be provided for enterprises to export technical talents.

Rely on Shandong construction safety and fabricated construction experiential education center, Jinan construction industrialization center (training), Jinan modern vocational education group, civil engineering construction group serves the overseas development of well-known Chinese construction enterprises such as China Railway 14th Bureau Group Co.,LTD; cultivates internationalized talents such as construction material inspection, assembly construction, engineering measurement and BIM technology application and improves the college technical and skilled talents' output ability.

7. Expand Two-way Communications Among Students and Raise the Level of Academic and Cultural Exchanges

In order to promote the development of the college's international exchange, the college established the student international communication association (SICA) in 2016, which organized teachers and students to actively participate in the college's international exchange activities, and added international elements to the campus culture.

Promote overseas study and exchange of students. The college have set up overseas special financial aid and set up various platforms for going abroad (boundary). According to the needs of different profession and different types of students, students are organized to study to overseas colleges. Students are also encouraged to apply for higher education, and send students to participate in international skills competitions, obtain professional certification from internationally renowned enterprises, and guide students to work in Chinese-funded enterprises for internship and employment, and constantly improve the students' international conception, international awareness and international competitiveness.

Expand the scale of overseas students to Shandong. Set up scholarships for international students, and increase the publicity of admissions. Make use of the resources in and out of campus, such as the College of Traditional Culture, the College of Innovation and Entrepreneurship, the Craftsmen's Workshop and "*Fu Xue Wen Miao*" in Jinan, and give full play to the advantages of traditional culture and specialties in art design, clothing and textile, calligraphy, painting and paper-cutting, etc. Cooperate with educational institutions or international organizations, such as Malaysia Hao Yang overseas group, China Bo Rui Si education, Ukraine's "*Voice of Peace*", and implement various forms of recruit students training mode, such as "language + culture + skills + academic qualifications", to open up the Southeast Asian student market. In addition, by recruiting students along the line of "*One Belt and One Road*" and African countries to study, research, receive technical training or hold Chinese culture study camp, the scale of overseas students coming to China has been expanded, and an international campus atmosphere of inclusive culture and cross-cultural communication has been formed.

Regularly invite famous professional teachers in the country and engineers from internationally renowned enterprises to give lectures to improve the level of overseas academic exchanges. Since

2016, the college has invited Mr. KIM, president of the American Prefabricated Architecture Association and senior member of PCI in the United States, to give a lecture on "*A special report about American prefabricated building development*". Professor Ann Bingsan of Chodang University of Korea came to set up a "*China and Korea Cultural Forum*". Professor Horst of the German Institute of Industrial Technology gave lectures to the Sino-German entrepreneurship teacher training course. Two experts from the Coburg institute of technology and the Berlin institute of technology carried out professional technical exchanges; Aaron Devine, president of TAFE college in Queensland, Australia, became a member of our education group strategic development committee for the modernization career of construction industry in Jinan. Professor Sun Zhongshan of Taiwan Kaohsiung Normal University conducted modern apprenticeship training. Dr. Zhang Xinyun, Asia-Pacific Institute of Creative Technology gave a report entitled "*how to implement the department's goals and future development vision in the context of the school's development plan*". Taiwan skill master, international skill competition gypsum technology and drywall system (painting) guidance expert Lin Jianmin came to our college to cooperate in walling and plastering skills training projects.

8. Summary

The purpose of the internationalized school running mode of the college is to promote the "innovative development, open development, integrated development and characteristic development" in an all-round way. Through a series of reforms in the education philosophy, course system and teaching mode, the professional personnel training mode is in line with international standards and the internationalization level of personnel training is improved. With the help of "One Belt And One Road" to spread Chinese culture and export Chinese technology and skilled personnel, the internationalization level of the precision service for "One Belt And One Road" have been improved. The college's international influence and international soft power have been significantly enhanced, which has accumulated the "Gongyuan experience" for the innovation of international education mode of higher vocational colleges, and better served the development needs of economic and social transformation and upgrading, industrial internationalization and transformation of old and new kinetic energy in the city cluster

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