

Study on the Practice of H3C Networking Academy in Applied Colleges and Universities

Xiaoqi Yin ¹ Xiaofeng Li ²

1 Department of Computer Science and Technology, Cheng-Dong College of Northeast Agricultural University, Harbin 150025, China
yinxiaoqi1981@163.com

2 Department of Informatics and Science, Heilongjiang International University, Harbin 150025, China
mberse@126.com

Keywords: applied colleges and universities; H3C networking academy; personnel training

Abstract. In order to adapt to the requirements of local or regional urban-rural construction and economic social development better, the applied colleges and universities should cultivate advanced applied professional talents who are equipped with the basic theoretical knowledge, professional skill and professional ethics level, and obtain relatively deep knowledge cultivation and practical skill training. H3C networking academy is an educational plan with the promotion of network technique as the major content and promoted by H3C Company. In the new trend, the applied colleges and universities cannot follow the general cultivation mode applied in the elite education period, and it must stick to the characteristic and adaptive professional computer talent cultivation. It will be a new growth point for the development of the school, a reflection for cultivating the comprehensive strength of the applied talent-oriented colleges and universities, as well as a significant symbol for the schooling level and capability to introduce H3C networking academy into the applied colleges and universities. The development of H3C networking academy in the applied colleges and universities reflects the educational thought and concept of applied colleges and universities, and it can position the colleges and universities in the economic, social and technological development better.

Current situation of applied talent cultivation in computer major of colleges and universities

With weak pertinence, the major position is out of the social demands. The computer market determines many specific requirements on the hierarchical structure, employment direction, capability and quality of the computer talents to a great extent. At present, a lot of colleges and universities still follow the previous talent cultivation plan, and they fail to conduct the demand analysis for the local enterprises about how to construct characteristic major and what kind of major should be constructed. Such a major position lacks both perceptual knowledge and rational thinking, leading to the failure in grasping the development direction.

Slow course reform and similar cultivation plan. With the increasing development of computer software technology, hardware technology and network technique, there are objective problems in the computer teaching of some schools, such as the backward content, outdated teaching equipment, knowledge-imparting teaching method and lack of skill training. As a result, the knowledge is outdated and the knowledge structure is defective. Meanwhile, when opening the computer science and technology major, the cultivation plan mainly follows that of the affiliated colleges and universities to the Ministry of Education, forming the similar and featureless talent cultivation mode.

Lack of engineering ability and slow technology updating. A significant factor for the society to balance the computer job hunters is the computer engineering and applied practical ability. However, at present, most colleges and universities are short of the cultivation of practical ability for students majoring in computer, especially the cultivation of engineering technology and applied technical capacity, which greatly impact the vocational development of students majoring in computer.

Weak faculty, imperfect knowledge structure of comprehensive quality. Faculty is the first

resource, and the integration of first-class teachers should be the fundamental task of the computer major in colleges and universities for its own construction and stepping towards a higher level. However, the computer major in colleges and universities is insufficient not only in teachers, but also in top talents, especially the young and middle-aged academic leaders. The proportion of full-time teachers is quite low, which also influences the improvement of education quality and the development of scientific work.

Development advantages of the H3C networking academic in applied colleges and universities

International authoritative branding. H3C authentication is the first complete network technology authentication system establishing the international regulations, as well as the first IT manufacturer authentication stepping towards the international market. It has complete proprietary intellectual property rights in both products and materials, with high technical content. As one of the authoritative IT branding at present, it can prove that the network knowledge and practice skills grasped can help the students to keep powerful competitive strength in the fierce vocational career.

Training courses paying equal attention to the practice and theory. According to the demands of the future market to talents with network technique and combining with years of network technique and product application experience in enterprise and each industry, H3C offers the foresighted and practical training courses applicable for college and university students. It not only includes the fundamental network knowledge and the network construction technology, but also contains substantial contents related to the practices. It can not only grasp the professional knowledge about network technology and the configuration of complete series of network equipment, but also comprehend the applications and connections between the network and real life.

Rich teaching and realistic experiment environment. H3C has integrated R&D, market and service experts to develop the *H3C Networking Academy Series Courses* as the standard teaching materials of the H3C networking academy college elaborately. It covers the technical theories of such fields as route switching, storage, security, IPv6, etc. the configuration of network constructed actually, as well as the elimination of network failure. Implemented progressively, it is convenient for the coherence and comprehension of knowledge. The content of all courses should follow the international standard to guarantee excellent openness and compatibility. All the experimental facilities for teaching employ the H3C network products. The mainstream equipment dominates in the selection of training equipment, and it should update the software in time to provide the latest characteristics.

Abundant online teaching resource. H3C Company provides abundant teaching resource support for the networking academy, including the online network technique lectures, latest courses and product technology materials download to guarantee that the students can achieve the information about the latest technology, thus to improve the teaching quality.

Perfect and appropriate certification system. Relying on the frontier network technique, H3C network technique and products provide professional and authoritative network technique authentication for global customers. Through corresponding study and authentication, it can not only grasp professional network technology, but also be equipped with the ability of designing, implementing and maintaining the network with corresponding scale. The specific authenticating project is shown in Table 1.

Table 1 Authenticating Project

Territory	Engineer	Senior Engineer	Experts
Routing & Switching	H3CNE	H3CSE-Routing & Switching	H3CTE
Voice		H3CSE-Voice	H3CIE-Routing & Switching
Video		H3CSE-Video	

H3C networking academy is the characteristic talent cultivation model for applied colleges and universities

In the first class, the major content of this course will be distributed to the whole class in the form of project task, so that the student can clarify their target from the very beginning and strengthen the consciousness and initiative of study.

Transforming the current results into the experimental cases. The college must make full use of the advantage to transfer the frontier achievements into the cases for teaching after extraction and simplification, keeping the application and advancement of the experimental contents, so that the students can have a great sense of achievement after the experiment.

Introducing the experimental cases from IT industry. In order to make up for the gaps between the school and industry, the course content is the foresighted technology in the IT industry. Relying on the H3C Company with leading technology, the application results will be introduced into the labs as the experimental cases.

Reforming the practical teaching approach. Aiming to improve the students' manipulative ability, operational ability and innovative ability, the course adopts various approaches for inspection, including the network project design, network competition, publication of papers, social practices, etc. besides the courses with strong theoretical property, and includes the credit of inspection into the cultivation plan.

Teachers' capability cultivation. In today's development of applied colleges and universities, the teachers should not only be equipped with rich teaching experience, but also with the capability of organizing and designing the project-oriented case teaching. They should also learn about the frontier and direction of the scientific development, thus to improve their scientific research level and engineering practice ability.

Teaching results of H3C networking academy

Through years of implementation, the cultivation mode of H3C networking academy achieves good teaching effect, which is mainly represented in the following aspects.

Clarifying the study direction, guiding the students to study initiatively and reflecting the students' dominant role. Through the H3C networking academy, the students can learn about their deficiencies, thus to study with pertinence, and they can study actively with initiatives and confidence. However, in the real teaching, the reaching strategy of paying less attention to spirit and more attention to practical engineering should be adopted. During the class, representative cases can be selected for concise explanation to help students analyze where will it be used and what kind of effect will it generate.

Constant improvement of authentication level and gradual expansion of authentication range. H3C network authentication is a stepped authentication process, and out equipment has already satisfied the teaching demands of various authentications. According to statistics, our authentication enjoys constant growth in level and amount in recent years. The development of H3C networking college occurs in better and better trend. Please refer to Figure 1 for details.

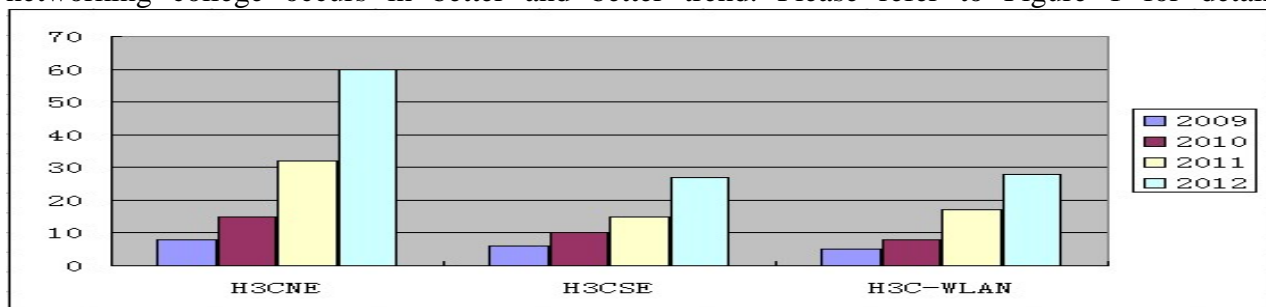


Fig. 1 the Development of H3C Networking College

H3C networking academy has already obtained the approval from H3C Company and society. After years of effort, J3C networking academy enjoys good development in our college. In 2010, it was also honored as the excellent networking academy, and several students also won the

scholarship issued by H3C Company. According to incomplete statistics, the students recruited by H3C, HP, Lenovo and Digital China have a good development, and these enterprises affirm the students' ability.

Conclusion

Aiming at various problems, for instance, the major position breaks away from the social demands, similar cultivation plans, deficient engineering ability, imperfect knowledge structure of comprehensive quality, the practical teaching of H3C networking academy in applied colleges and universities has been proposed. Through special authentication study, primary results have already been obtained, for instance, the students' innovative ability and practice ability have been improved constantly, and the teachers' scientific research level and engineering practice ability have also been enhanced. However, the practice and study of H3C networking academy in applied colleges and universities is long-term and complicated system engineering, and a lot of problems still require us to explore.

References

- [1] Wu Zhenguo, Study and Discussion of Professional Computer Talent Cultivation Mode, Computer Education, 2009.
- [2] Li Chunjie, Study on the Reform of Capability-Oriented Professional Computer Talent Cultivation Mode, Journal of Bohai University (Natural Science Edition), 2011.
- [3] Yu Yonghong, Discussion of Characteristic and Adaptive Talent Cultivation of Computer Major in Local Colleges and Universities, Journal of Huaibei Professional and Technical College, 2010.
- [4] Tang Chaojing, Mao Junjie, etc. Thought and Design for the Professional Talent Cultivation Plan of Electronic Information Major, Journal of Higher Education Research, 2009.
- [5] Liu Yihe, Zhang Kai, Innovative Study and Practice of Applied Talent Cultivation Mode for Local Colleges and Universities, China Adult Education,
- [6] Long Qingyun, Study on the Talent Cultivation System of Computer Major in Colleges and Universities Based on the Talent Supply Chain, Computer Education, 2008.