Deepen the cooperation between TVET and enterprises in the integration of production and education

Promote the high-quality development of vocational education
"Symbiotic" between Qualification and Curriculum

- **Course development and certificate standards "inter-embedded"**

  Grasping the two key points of school curriculum and enterprise certification, taking the quality of talent training as the core, this paper integrates the training and certification of on-the-job engineers into the process of talent training in higher vocational colleges, and constructs a program suitable for zero-based college students.

- **Course upgrade and certificate upgrade "interaction"**

  With the development of industrial technology, the certification standards of enterprises are keeping upgraded. The curriculum is keeping updated too, and fed back to the certification system, and the successful experience is radiated to other higher vocational colleges in China.
Constructed the modularity curriculum system

Modular, wide-base, and multi-directional

"Segmentation" embodies the law of education and teaching

"Classification" embodies the law of teaching according to the material

● "Latification" reflects the law of career growth

Progressive cultivation and individualized learning
A capability model is established - comprehensive technical capability.

- Integration of talent cultivation and international first-class Huawei certification standards
- Introducing advanced technology and excellent culture of enterprises, and establishing the training mode of "Seven-dimensional ability"
- Reinforcing Hard Skills
- Focus on soft skills: engineering standards, documentation capability, professional ethics, communication, teamwork, social responsibility, and self-improvement
- Cultivating the Industrial Talents of Morality and Technology
"Five-Step Teaching Method" was created.

"Five-step teaching method" makes students' knowledge and skills from fragmentation to systematization through practical project teaching, and improves students' comprehensive application ability and project management ability.
Cooperate to publish Huawei 1+X certificate series teaching materials.
High-standard smart classrooms are built.
High-level training environment has been built.

3 training bases supported by the central finance:

- Communication Technology
- computer network technology
- IoT application technology
High-level training environment has been built.

Typical 5G Application Scenarios
# Builds a service platform for technological skill innovation

<table>
<thead>
<tr>
<th>Year</th>
<th>Name of Research Institution</th>
<th>Level</th>
<th>Project initiation and funding department</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>Guangdong Industrial Internet of Things Control Technology Engineering Laboratory</td>
<td>Provincial</td>
<td>Guangdong National Development and Reform Commission</td>
</tr>
<tr>
<td>2015</td>
<td>Guangdong Magnesite Smelting Industry Internet of Things Engineering Technology Research Center</td>
<td>Provincial</td>
<td>Guangdong Science and Technology Department</td>
</tr>
<tr>
<td>2014</td>
<td>Guangdong Information Communication Collaborative Education Platform</td>
<td>Provincial</td>
<td>Guangdong Provincial Department of Education</td>
</tr>
<tr>
<td>2017</td>
<td>Industrial Internet of Things Heterogeneous Network Control Technology Engineering Laboratory</td>
<td>Municipal</td>
<td>Shenzhen National Development and Reform Commission (RMB 4.4 million)</td>
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<tr>
<td>2016</td>
<td>Shenzhen Smart Life Creator Service Platform</td>
<td>Municipal</td>
<td>Shenzhen Science and Technology Commission (RMB 2 million)</td>
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<tr>
<td>2014</td>
<td>Shenzhen Cultural Venue Digital Technology Engineering Laboratory</td>
<td>Municipal</td>
<td>Shenzhen National Development and Reform Commission (3.6 million yuan)</td>
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</tbody>
</table>

- National Natural Science Foundation of China 10+ items
- 2 "Internet of Things" projects of the Ministry of Industry and information technology of China
- 1 major sub-topic of the national "863"

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**Significant technical R&D and service results**

- 150+ technical service items
- Payment received: RMB 70 million
- 280+ patent and software authorships
- 300+ papers
Cultivated a high-level faculty

- 50+ Huawei certified trainers
- 2000+ person-times attended Huawei Technical training
- HCIE Talent Ecosystem Action Ambassador
- HCIE Masters

- Special allowance expert of the State Council
- 3 leading national talents
- Pearl River Scholars
- 3 famous teachers in provincial teaching
- 3 provincial teaching teams

- City Peacock Program Talent
- 5 outstanding teachers in the city
- Municipal Labor Medal
- 3 advanced educators in the city
- City technical master
- Market Skill Elite
Cultivating industry engineers

Analyze project background and customer requirements and business data. Product introduction, product model selection and positioning, and scenario drill; Describes the classic architecture, architecture design principles and process, reliability design, and QoS planning and design principles.

Ability to write solution documents, use the Visio drawing tool, communicate with services, write logical thinking and documents, and present PPT documents.

Overview of common technologies, application technologies, equipment management, and tools; ASP service specifications, project delivery process specifications, high-risk operation process specifications, and engineer service specifications; ASP fault diagnosis and troubleshooting standards, equipment operation and ASP face evaluation skills; Typical cases, comprehensive capability test, and on-site visits and drills.

Arrange for enterprise ASP practice training, enterprise mentor system, learn Huawei culture, work order maintenance process specifications, patrol inspection process specifications, high-risk operation process specifications, follow the project team to conduct project survey, solution design, implementation, network test, and situation report, and follow the project team to build the project platform and business. Release and test, accept, output project summary, develop PPT for network evaluation.
Leading national talent development for top certification

• 276 college students passed Huawei HCIE, accounting for nearly 2% of the global HCIE.
• 152 graduates of the class of 2019 - 2021 passed HCIE
• 15% + Majors pass HCIE
Motivation: Everyone is talented and everyone is brilliant

- By means of successful motivation, guidance of interest, group training and simulation experience, students' learning confidence is established, and they can help them achieve the leap of "low-in-high".

- Help students become Huawei certified engineers, achieve high-quality employment, enable them to gain the experience of "step-by-step" and solve the problem of learning motivation.
Huawei ICT Competition is an effective measure to promote students' innovation.
Huawei Campus Recruitment - Shenzhen Vocational and Technical College
Huawei ICT Industry Job Fair Meeting
Some Experiences

- "Intrinsic demand" is a prerequisite
- "Cultural Blending" is the foundation
- "Course System" is the content
- "graduate quality" is at the core
- "strong cooperation" is the guarantee