

2018 YunTech
CSR REPORT
National Yunlin University of Science & Technology

Contents

About the report

01 / A Message from President

02 / Yuntech' s Vision and strategy

2-1 History and Development of Yuntech

2-2 Organization Chart

2-3 Ideas of Running School

2-4 Sustainable Core ideas, Vision and Strategic Policies

2-5 List of Rewarding Records

03 / Organizational Governance and Stakeholders' Participation

3-1 Governance Procedures

3-2 Risk Analysis and Internal Control

3-3 Communication with Stakeholders

3-4 Academic Ethics and Clean Governance

3-5 The Development and Cultivation of Human Resources

3-6 Staff Benefits and Complaints

3-7 Sustainability and Social Responsibility Committee

04 / School Performance

4-1 Innovative Teaching Performance

4-2 Results of Student Employment

4-3 Effects of Life Education

4-4 Effects of Environmental Sustainability Education

4-5 Academic Achievements

4-6 Effects of Industry-Academia Cooperation

4-7 Chain Counseling System

05 / Financial performance

5-1 Financial Performance

5-2 The Relationship Between Financial Performance and R&D Innovation

06 / Environmental Protection Performance

6-1 Responses to Climate Change

6-2 Energy and Resource Management and Energy-Saving Measures

6-3 Environment Management Performance

6-4 Green Campus

6-5 Campus Safety and Health

6-6 Information Security

6-7 Reuse of scrapped assets

6-8 Transportation

6-9 Compliance with Regulations

07 / Social Integration and Placemaking

7-1 Social Integration Strategies and Goals

7-2 Social Practice Inside the Campus

7-3 Social Practice off Campus

7-4 Industrial Exchange

7-5 International Exchanges

7-6 Extension Education

08 / Performance of the Supply Chain Management

8-1 Sustainable Supply Chain Policies and Goal

8-2 Implementation Method and the Effectiveness

09 / Comparison with Sustainability Indicators

9-1 Comparison with the Contents of GRI Standards Project

9-2 Comparison with the Contents of the United Nations SDGs Project

3

4

8

9

13

17

19

23

28

29

35

41

59

63

73

77

78

81

83

85

89

93

95

97

106

107

111

114

116

119

123

127

131

133

139

141

143

148

151

155

159

173

177

181

184

185

187

190

191

195



About the Report

This report is compiled by National Yunlin University of Science and Technology (YunTech hereinafter) in accordance with the guidelines issued by the Global Reporting Initiative (GRI, 2016) and the four principles of the AA1000 Accountability Principles (2018) namely inclusiveness, materiality, responsiveness, and impact.

This is YunTech's first sustainability report to communicate to its stakeholders the university's administrative performance, financial and human resources operations, adherence to environmental sustainability guidelines, and social integration and supply chain management, and to present its vision and development strategy to respond to sustainability issues concerning its stakeholders.

Scope and Period of the Report

This report includes the performance of YunTech between 1st of August, 2017 and 31st of July 2018. However, the annual data on its sustainability efforts was in 2018 (1st of January, 2018 to 31st of December, 2018). Also, other data included involve one to three academic years. The outcomes published on YunTech's CSR website covered specific practices and performance in terms of administration, and economic, environmental, and societal significance.

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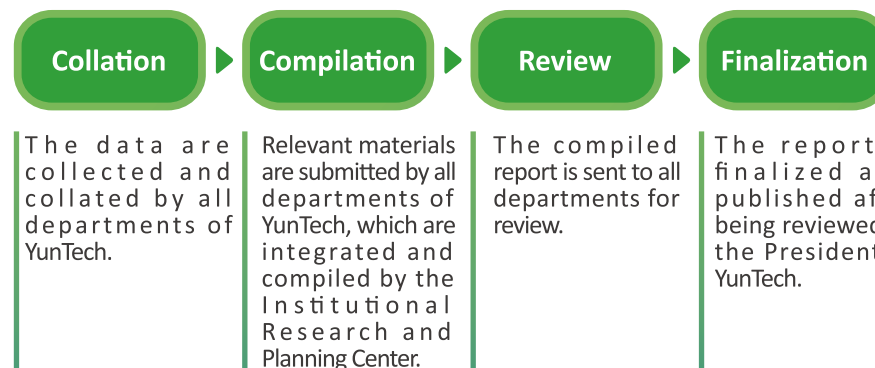
Issue Date of the Report

This report was issued in August 2019. YunTech plans to issue its annual sustainability report every August henceforth.

Auditing of the Report

This report was verified in July, 2019 by the British Standards Institution (BSI), Taiwan branch, an independent third party an unit which conforms with the core option disclosure of the Global Reporting Initiative standards and AA1000 Assurance Standard (2008 with 2018 addendum) Type I moderate-level assurance. The assurance statement is attached to the appendix of this report.

Quality Control Process of the Reports



01 /

A Message from President



01. / A Message from President



A Practical Paradigm for Universities of Science and Technology

Integration of Industry-Academia Cooperation and Innovation. Side-by-Side Mode for Paradigm Sharing.

Universities are responsible for cultivating students with healthy personality, independent thinking, and creativity which are vital for social development, as well as continuously conduct researches and innovate in various professional fields, and promote the sustainable development of society, economy, and environment.

YunTech envisions itself as a practical paradigm for universities of science and technology. Since 2018, YunTech has striven to develop a new education system with reference to the four aspects proposed by the Higher Education Sprout Project, namely implementing teaching innovation and improving teaching quality, developing school characteristics, improving the publicity of higher education, and fulfilling social responsibilities, and the integration of its existing faculty system with YunTech's problem-based learning (PBL) center and College of the Future. This new system is student-centered with the goal of cultivating adaptive talents using a strategy for education innovation in society and industries.

YunTech attaches great importance to students' life education. It has been acclaimed as "A School Characteristic of Life Education" by the Ministry of Education for four consecutive years.

Moreover, its dedication to build a sustainable campus has been recognized with awards such as "Excellence in Energy-Saving Innovation Award" and "Gold Award for Energy Saving Benchmark" from the Bureau of Energy, Ministry of Economic Affairs of Taiwan, and "Excellence Award" during the Best Green University competition of the Green University Union of Taiwan (GUUT). It was ranked among the top 200 universities across the world by the Times Higher Education (THE) World University Rankings in 2019 for its overall achievements in fulfilling the university social responsibility (USR) and constructing a sustainable campus. Among the 17 UN sustainable development goals (SDGs), it was ranked 44th and 48th across the world in Industry in terms of Innovation and Infrastructure (SDG9) and Ensuring Sustainable Consumption and Production Patterns (SDG12) respectively; its accomplishments in these two aspects were recognized internationally.

Faced with global competition in higher education, YunTech strives to excel in the following four aspects : student cultivation, teacher development, university contribution, and international influence; this is based on its Medium-Term Plan for School Development (2018-2022) and its vision to be a "Practical Paradigm for Universities of Science and Technology". It also spares no effort in cultivating skilled talents with humanistic care and in performing application-oriented research. It exercises local, industrial, social, and global influence to build an innovative, diverse, friendly, and sustainable campus. Based on the principles of sustainable development,

YunTech established the Research Center for Sustainable Development and Social Practice in 2019 to expand its global influence in accordance with the 17 sustainable development goals of the United Nations. It will also establish the International Institute of Robotic Intelligence to address the problems of an aging society. Based on its six medical PBL research centers, YunTech plans to invest in research and development for emerging industries, and in education, and research and development for the aging population to promote seniors' welfare and well-being. In this way, teachers and students make a concerted effort to contribute to the society.

YunTech encourages all faculty members to devote themselves into teaching, researching, and participating in industry-academia collaboration through strategic planning and unique solutions. According to the Ministry of Education, 80% of YunTech's faculty members are engaged in industry-academia collaboration providing students with opportunities for practical learning and improving their employability. In 2017, the fund of industry-academia collaboration for every YunTech faculty member exceeded one million NTD; it ranked sixth in Taiwan and second among the universities of science and technology. In 2018, the amount reached a new high, with an average of 1.5 million NTD per faculty member. Moreover, teachers and students implement the tenet of sustainable development in teaching and learning, and in research and development. In recent years, YunTech has won multiple awards at Red Dot Design Award in Germany (ranked sixth among Asian universities), and German iF Design Award (Professional concept). This shows YunTech' s vast global influence on innovative teaching, industrial connection, sustainable development, and design capabilities.

YunTech not only carries forward the spirit of sustainable development, but also fulfills the University Social Responsibility (USR) and contributes to placemaking. YunTech has been deeply involved in cultivating local creative talents for a long time. At present, YunTech teachers and students, through Qianshan USR and Laiji USR, collectively connect the school with the society and industries to solve social problems in a concerted effort and disseminate to the public the notions on social construction, cultural conservation, and public issues.

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In 2018, YunTech was ranked 97th among the top 100 universities located including China, Taiwan, and Hong Kong. Furthermore, YunTech was ranked fourth among public universities of science and technology and first in Yunlin County, Chiayi County, Chiayi City, and Tainan City in the survey “Employers’ Most Satisfied University in 2018” conducted by the 111 Human Resources Bank and China Times Weekly. In addition, YunTech had the lowest student mobility rate among all public technical and vocational schools in Taiwan according to the Ministry of Education.

At present, YunTech has great performance in teaching quality, learning climate, industry-academia collaboration, industrial service, international exchange, social service, international invention competitions, and students’ employment rate. Inspired by the vision of becoming a practical paradigm for universities of science and technology, YunTech will continue to cultivate students with healthy personality and independent thinking, participate in research and innovation in various professional fields, and promote social, economic, and environmental sustainability and development.

National Yunlin University
of Science and Technology
President

Nengshu Yang

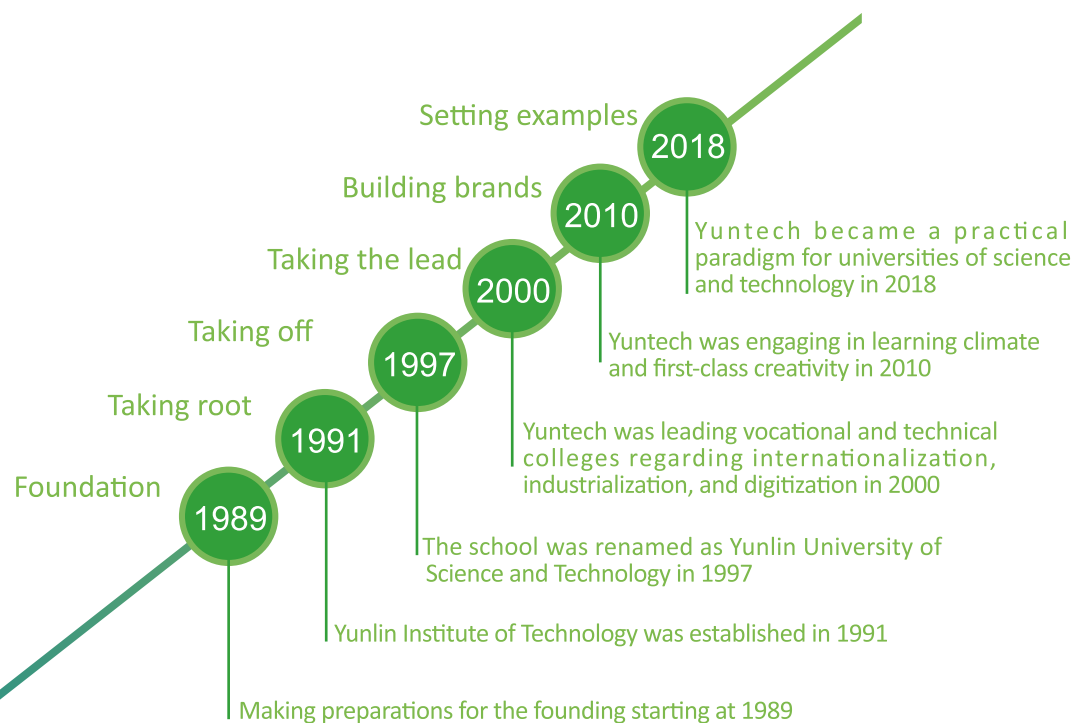
02 /

YunTech's Vision and Strategy



2-1 / History and Development of Yuntech

YunTech was founded in 1991 as a technical and vocational institution. It was originally known as "National Yunlin Institute of Technology", which aimed to train students with senior engineering management techniques by bridging higher vocational education and junior college education.



Due to its outstanding performance, YunTech was renamed "National Yunlin University of Science and Technology" with the approval of the Ministry of Education on 1st of August, 1997.

Under the leadership of past presidents, and of current president, Dr. Neng-Shu Yang, after 28 years, YunTech was known internationally as an university that values the integration of industry and academia, and one that continuously cultivate talents that produce innovative designs. In recent years, YunTech has successfully promoted mutually beneficial cooperation between the industry and the academia and created a campus that cultivates industrial talents in mid-Taiwan.

In the past decade, YunTech received subsidy from the Ministry of Education as part of the "Program of Developing Paradigm Universities of Science and Technology" and the "Program of Awarding Universities of Science and Technology and Technical Schools for Excellent Teaching". Consequently, YunTech has maintained itself in teaching and building a practical paradigm university of science and technology characterized by industry-academia integration and innovative design through industry-academia collaboration and teaching innovation.

In 2018, YunTech continued to receive the subsidy from the Ministry of Education as part of the "Higher Education Sprout Project", which allowed it to build a dual track learning system. The dual track learning system provides a learning environment that promotes students' adaptive development with practical application. It also built the problem-based learning system that connects the school with industries. In this way, YunTech hopes to achieve the goal of cultivating talents who are able to get employment upon graduation.

Chronology of YunTech' s Establishment

- 1989 Establishment of the preparatory office and launching ceremony for National Yunlin Institute of Technology
- 1991 National Yunlin Institute of Technology was officially founded with the first president, Professor Wen-Hsiung Chang
- 1994 The first graduation commencement ceremony was held.
- 1997 National Yunlin Institute of Technology was renamed as "National Yunlin University of Technology and Science"
- 2000 YunTech celebrated its 10th year of founding anniversary.
- 2001 The first president, Professor Wen-Hsiung Chang resigned and Professor Tsong-Ming Lin took over the position.
- 2006 The 2006 National College Sports Meeting was held. The newly constructed "Building Three" for College of Design won the 7th Public Works Gold Medal

- 2007 YunTech was awarded "Champion" during the Software Innovation Competition for Taiwan' s Technical and Vocational Colleges
- 2009 The second president, Professor Tsong-Ming Lin resigned and Professor Y. B. Yang took over.
- 2012 YunTech won total 92 medals in international invention competitions (26 gold medals, 36 silver medals, 25 bronze medals, and 5 special awards).
- 2013 The third president, Professor Y. B. Yang resigned and Professor Chun-Kan Hou took over. Yunlin Industrial Zone signed a strategic alliance agreement with YunTech. YunTech signed the memorandum of Strategic Alliance for Developing Paradigm Universities of Science and Technology in Central Taiwan
- 2014 Sustainability, green energy, wisdom, innovation, and vision of the future as characteristics of YunTech were inaugurated. College of Management was accredited by Association of Advance Collegiate Schools of Business (AACSB) YunTech won three Red Dot Design Concept Awards

2015

College of Management passed the Accreditation of Chinese Collegiate School of Business.
The construction of Industry-University-Research Building started.
YunTech was awarded for its excellence in Energy Saving by Bureau of Energy, Ministry of Economic Affairs.
YunTech signed an agreement with World Taiwanese Chambers of Commerce (WTCC) to form an alliance with businesses around the world that will provide internship opportunities and employment guidance for technical and vocational college students in Taiwan

2016

YunTech signed a diverse cooperation memorandum with China Youth Corps.
YunTech held the unveiling ceremony of YunTech Creative Workshop in Central Taiwan together with the Ministry of Education

2017

The fourth president, Professor Chun-Kan Hou resigned and Professor Neng-Shu Yang took over
YunTech won its fourth consecutive award as the “Characteristic School of Life Education” by Ministry of Education
YunTech won the “Excellence Award” in the Best Green University Competition by Green University Union of Taiwan
YunTech won the gold medal for Talent Quality-management System (TTQS)

2018

YunTech established the College of the Future
YunTech renewed the Memorandum of Cooperation with Ho Chi Minh City University of Agriculture and Forestry
YunTech signed the Memorandum of Cooperation with National Hsin Chu Commercial and Vocational High School to form a strategic alliance.
YunTech signed the Memorandum of Academic Cooperation with India Education Society
YunTech signed an agreement with RCG to launch the cooperation plan of offshore wind-power talent cultivation.
YunTech worked with Chiayi Industrial Vocational Senior High School to cultivate scientific and technological talents
YunTech worked with National Huwei Agricultural and Industrial Vocational Senior High School and National Siluo Agricultural Industrial High School to foster casting talents
College of Engineering was accredited by the Institute of Engineering Education Taiwan (IEET)

2018
YunTech
CSR REPORT



2-2 / Organization Chart

School Name	National Yunlin University of Science and Technology (YunTech)
Address	University Road, Section 3, Douliou, Yunlin 64002, Taiwan
President	Professor Neng-Shu Yang
URL	https://www.yuntech.edu.tw/
The Number of fulltime faculty members	411
The Number of part-time faculty members	228
The Number of foreignfaculty	12
The Number of staffss	321
The Number of students	9,732
The Number of colleges	5
The Number of departments	23 (Including 4 degree curricula)
The Number of Institutes	26 master's and 13 doctoral programs
Total operation revenue in 2018	TWD 2,478,347,139
Total operation expenditure in 2018	TWD 2,563,084,783
Surplus and deficiency in 2018	A shortage of TWD 84,737,644
Cash and equivalent cash in 2018	TWD 942,821,928

YunTech is a higher education institution which belongs to the higher technological and vocational Education of the Ministry of Education. Its stakeholders are mainly students, parents, staffs, suppliers, community people, governmental organizations, alumni, enterprises, and non-governmental organizations. One president and three vice presidents are appointed to organize the rules and plans. The president is responsible for the comprehensive management and development of school affairs and represents the school externally. The vice presidents assist the president in school affairs. During the reporting period, there is no significant change in the organization and its supply chain.

The administrative units of YunTech include the Office of Academic Affairs, Office of Student Affairs, Office of General Affairs, Office of Research and Development, Office of International Affairs, and other 20 first-level administrative units. The academic units have five colleges, 23 bachelor's programs, 26 master's programs, 14 master's in-service programs, 13 doctoral programs, and 10 institute-level centers. The five colleges are the College of Engineering, College of Management, College of Design, College of Humanity and Applied Sciences, and the College of Future.

Professional technology, research and development (R & D), and service centers have been set up to promote research and industry-academia cooperation. There are 13 R & D centers in total, including the Fire Protection Engineering and Testing Center, Research Center for Sustainable Development and Green Technology, YunTech Education Service Center, and the Center for Process Safety and Industrial Disaster Prevention. YunTech has also set up 27 PBL (problem-based learning) research centers with teaching functions, including the Center for Intelligent Robotics and Automation Application Services, Artificial Intelligence Research Center, and the Creativity Integration Design Center.

YunTech president

School Council

Executive Council

Office of Academic Affairs

Registration Division
Curriculum and Teaching Division
Admission and Publishing Division
Integrated Business Division

Office of Student Affairs

Division of Student Assistance
Division of Extracurricular Activities
Health Care Division
Service Learning Division
Division of Military Education

Office of General Affairs

Documentation Division
Cashiers Division
Property Management Division
General Service Division
Construction and Maintenance Division
Garrison Police Unit

Office of Research and Development

Research Services Division
Entrepreneurship Division
Industry-Academia Cooperation Division
Intellectual Property Management
Division
Career Development & Alumni Division

Library

Cataloging and Acquisitions Division
Circulation and Reference Services Division
Library Development Division
System & Information Management

Office of International Affairs

International Exchange Division
Administrative Division of International Education
International Student Division

Information Technology Services Center

Network Service Division
Systems Division
Media Services Division

Counseling Center

Extension Education Center

Extension Division
Training Division

Language Center

Language Promotion Division
Language Assessment Division
Chinese as a Foreign Language Program

Environmental and Safety Technology Center

Safety and Health Division
Environmental Protection Division

Art Center

Performance & Exhibition Division
Collection Division

Center for Excellence in Learning and Teaching

Teacher Development Division
Learning Advancement Division
Planning & Research Division

Institutional Research and Planning Center

School Affairs Research Division
School Affairs Planning Division

General Research Center for Industry-University
Collaboration

Technology Transfer Division
Operations Management Division

Office of Physical Education

Venue Operation Division
Activity Management Division

Secretariat

Administrative Management Division
Public Relations Division

Internal Audit Office

Personnel Office

The First Division
The Second Division

Accounting and Statistics Office

The First Division
The Second Division
The Third Division

Office of Research and Development

Center for Regional Industry-Academia Collaboration
Incubation Center for Industry-Academia Collaboration
Intellectual Property
Environmental Accident Response Consultation Center
R & D Center for Power Electronics and Sustainable
Energy Technology
R & D Center for Design-led Innovation Technology
Center for Hakka Studies
Maker Center (Creative factory)

YunTech president

School Council

Executive Council

College Of Engineering

- Institute of Engineering Science and Technology (a doctoral program divided into Science and Technology Division and Rubber & Material Industry Division)
- Department Of Mechanical Engineering (master's and doctoral program)
- Department Of Electrical Engineering (master's program)
- Department Of Electronic Engineering (master's and doctoral programs; the master's program includes Divisions of Chip and System as well as Micro Electronics and Optoelectronic Engineering)
- Department of Information Engineering (master's program)
- Department of Environment, Safety and Health Engineering (master's and doctoral programs, and on-the-job master's program for Environmental Safety Technology and Management)
- Department of Chemical and Materials Engineering (master's and doctoral programs)
- Department of Construction Engineering (master's program)
- Research Center for Industrial Pollution Prevention and Control
- Resources and Natural Disaster Prevention Technology
- Intellectualization and Monitoring Research Center
- Precision Instrument Center
- Construction Technical Services and Materials Testing Center

College of Humanities and Applied Sciences

- Institute of Technical and Vocational Education (master's and doctoral programs)
- Institute of Leisure and Sports (master's program)
- Institute of Materials Science and Technology (master's program)
- Department of Applied Foreign Languages (master's program)
- Institute of Applied Sinology (master's program)
- Institute Of Science And Technology Law (master's program)
- Department of Cultural Assets Maintenance (master's program)
- Teacher Training Center

YunTech president

School Council

Executive Council

College of Management

- Department of Industrial Engineering and Management (master's and doctoral programs, the master's program consists of Industrial Engineering Division and Logistics & Supply Chain Management Division, and on-the-job master's programs of Industrial Engineering & Management and Health Industry Management)
- Department of Business Administration (master's and doctoral programs, the master's program consists of Business Administration Division, International Business Administration Division and Entrepreneurship Administration Division)
- Department of Information Management (master's and doctoral programs)
- Accounting Department (master's and doctoral programs)
- master's program of Advanced Management (on-the-job master's program)
- Bachelor's Degree Program of Business Administration (No.4 Technical Extension Education Department)
- Department of Finance (master's and doctoral programs)
- Bachelor's Degree Program of Industrial Management
- Bachelor's Degree Program of International Management
- Operations and Management Research Center

College of Design

- Institute of Design (master's and doctoral programs)
- Department of Industrial Design (master's program)
- Department of Visual Communication Design (master's program)
- Department of Architecture and Interior Design (Architecture Division and Interior Division, master's program)
- Department of Digital Media Design (master's program)
- Department of Creative Design (master's program)

College of Future

- Bachelor's Degree Program of Interdisciplinary Studies
- Bachelor's Degree Program in Industrial Projects
- General Education Center

2-3 / Ideas of Running School



School Motto

Cheng	Sincerity	To be frank and sincere, from within and without.
Jing	Honor	To honor law and respect etiquette, to cherish employment and love associates.
Heng	Perseverance	To persevere in implementation, to carry through what is intended.
Hsin	Originality	To keep originality in mind, to have a daily renewal in life.

The educational idea of YunTech is to lay equal emphasis on theory and practice, as well as on humanities and science. Based on the school motto of "Sincerity, Honor, Perseverance and Originality", YunTech fosters students into professionals who have knowledge management competence, are internationally competitive and can place an equal emphasis on humanities and technology.

After more than 20 years of operation, YunTech staffs have gradually shaped unique organizational culture values, and they continue to pursue four values: to be practical (Sincerity), to cherish employment and love associates (Honor), to carry through what is intended (Perseverance), to be creative (Originality). Based on these values and four core goals, YunTech has become a practical model of combing industry-academia cooperation with innovation, modeling with sharing for universities of science and technology.

YunTech expects to achieve the following four goals

- ⦿ To beautify campus environment and cultivate talents with humanistic care.
- ⦿ To take design innovation as the main axis to improve the competitiveness of domestic industry.
- ⦿ To transform from holistic education to overall education, from vocational and technical excellence to overall excellence.
- ⦿ To actively participate in international activities, shaping YunTech as a world-class brand.

YunTech takes a practical vision for universities of science and technology as its medium-term plan for school development 2018-2022, hoping to have an outstanding performance in four aspects: student cultivation, teacher development, university contribution, and international influence.

A practical model for universities of science and technology



In order to achieve the vision, YunTech aims to cultivate skilled personnel with humanity, to expand the capacity for application-oriented research, exert local, industrial, social, and global influence, and shape an innovative, diversified, friendly and sustainable campus culture. Its strategy is to build a suitable educational environment for talents, to build a mechanism for connecting R & D results with new industries, to use education and R & D resources to solve local, industrial, social, and global problems, and to continue organizational innovation and change.

YunTech hopes to contribute at four levels

- 🕒 In terms of school administration, it aims to improve the publicity in higher education: gradually change the school structure as a model of technical and vocational education.
- 🕒 In terms of study, it aims to implement teaching innovation and improve teaching quality by letting each student play.
- 🕒 It aims to develop school characteristics and to redefine and explore jobs that do not exist now.
- 🕒 In terms of the social environment, it aims to fulfill social responsibilities : solve as many social problems as possible, and make the world a better place.

2-4 / Sustainable Core Ideas, Visions, and Strategic Policies

The core idea of sustainability is to meet the needs of current stakeholders without sacrificing future stakeholders and to pursue the balance between economic, social, and environmental interests in the process of organization and operation. As a higher education institution, YunTech plays the role of education and knowledge output. **Our sustainability vision is to promote the sustainability of the economy, society, and environment through education and knowledge. In terms of sustainable strategies and actions, we integrate the spirit of sustainability into our vision, goals, and strategies, and incorporate it in teaching, research, and industry-academia cooperation.**

In the three aspects of vision, goal and strategy, YunTech expects to educate talents who care about society and environment, use education and R & D resources to solve the economic, social and environmental problems of local, industry, society and whole world. And through innovation and change of organizational management, we hope to build an innovative, diverse, friendly and sustainable campus.

In terms of teaching, YunTech embraces the spirit of sustainability. In addition to formal environmental science education and business ethics education, YunTech integrates community, industrial and social problems into students' theoretical and practical projects, such as the

small-store marketing service of the College of Management; the tribal cultural preservation and marketing activities of the College of Design; the international marketing activities of local industry, preservation of traditional culture and marketing activities of College of Humanities and Applied Sciences; and the placemaking activities of College of Future. These activities are combined with the final project of the course, from which students can learn about local, social and environmental issues. Above all, students can prove their ability to promote economic, social and environmental sustainability.

In terms of academic research, YunTech embraces the spirit of sustainability, such as the research on organizational administration, business ethics, corporate social responsibility, sustainable production, sustainable supply chain, education for the aged and employment conducted by teachers and students of Management College; the research on climate change and sustainable energy by teachers and students of College of Engineering; the research on sustainable recreation and sustainable community tourism by teachers and students of College of Humanities and Social Sciences; and the research on sustainable product design and sustainable consumption behavior by teachers and students of College of Design. These academic researches, on the one hand, reflect that YunTech promotes sustainability with knowledge, and on the other hand, deliver the spirit and method of sustainability to students in the process.

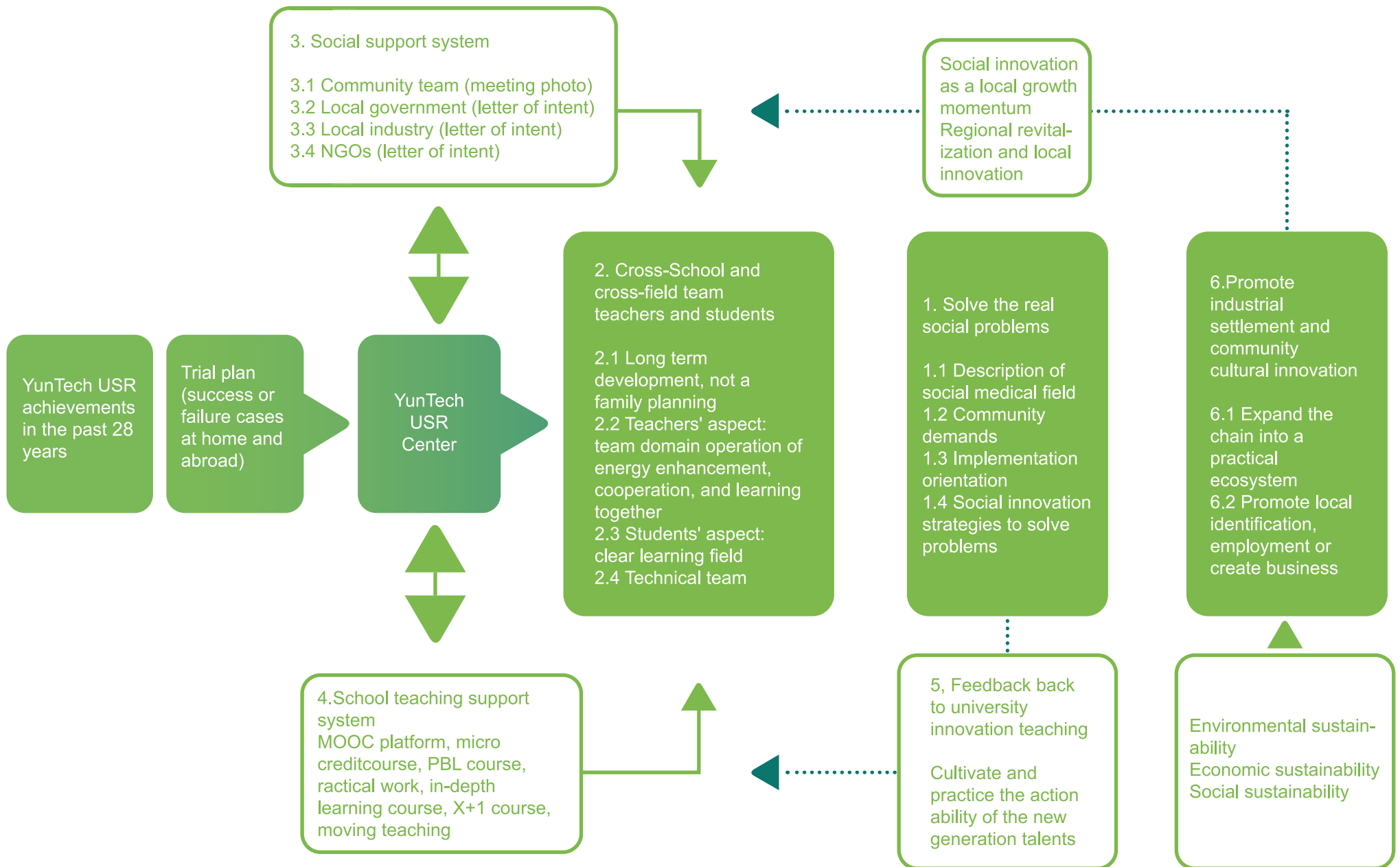
In terms of industry-academia cooperation, YunTech embraces sustainability. First, YunTech sets up several research centers related to sustainability, such as the Power Electronics and Sustainable Energy Technology R & D Center, Research Center for Sustainable Development and Green Technology, Research Center for Soil and Water Resources and Disaster Prevention Technology, Industrial Pollution Control Research Center, Environmental Accident Response Consulting Center, and the Research Center for Sustainable Development and Social Practice. These research centers practice YunTech's vision and strategy in promoting environmental and socially sustainable development with knowledge. Second, YunTech's industry-academia cooperation aims at creating new businesses and assisting small and medium-sized enterprises. The performance of the innovation and development center of YunTech is excellent where many new companies are cultivated.

The school raised eight million yuan to financially help small and medium-sized enterprises. Its teachers use their innovative technology to set up derivative enterprises. All these are under YunTech's vision and strategy of promoting economic sustainability with the use of knowledge. Last but not least, YunTech adopts the University Social Responsibility (USR) as an important goal of industry-academia activities. From the community construction in 14 townships, 5 towns and 1 city in Yunlin County in the past to the establishment of the Research Center for Sustainable Development and Social Practice, YunTech has always followed the USR operation framework. Based on the as well as the dual support of, YunTech is supported by cross-school and cross-field teams, teachers, and students to create the school teaching support system and social support system to

address the real community problems. YunTech aims to promote various actions that can promote industrial settlements and cultural innovation in the community with the goal of environmental sustainability, economic sustainability, and social sustainability. In short, YunTech hopes to promote regional revitalization with social innovation as a local growth driver and then provide feedback on the implementation results of the plan to the university innovation teaching.

YunTech also actively establishes partnerships at home and abroad to pursue regional and global sustainability. For example, the University has joined the Asian University Network of Environment and Disaster Risk Management (AUEDM) in 2007 to conduct international exchanges on issues related to climate change and disaster management in Asia and carry out research on global environmental sustainability, water resources, and disaster risk assessment with the United States and the mainland. Another example is the cooperation with WWOOF ESPAÑA of Spain and SustED (Sustainability Education) of the UK in recent years. The cooperation is based on the concept of the gift economy. Through the transmission of seed token, a social experiment system of the gift economy is created to spread a friendly atmosphere.

Based in Yunlin County that suffers economic, social, and environmental problems, YunTech has a profound understanding of the importance of sustainability. We will continue to practice the vision of "promoting the sustainability of economy, society, and environment through education and knowledge such as teaching, research, and industry-academia activities.





2-5 / List of Rewarding Records

Teacher Rewards

Outstanding and excellent teachers

The "Key Points for the Selection and Rewarding of Outstanding and Excellent Teachers" are formulated to encourage such teachers and affirm their efforts and contributions in education. Aiming to pursue a quality teaching of refinedness and excellence and a teaching mode that advances with time, thus cultivating talents of higher education and accomplishing the fulfillment of bring up new generation.

Yunduo Award (Excellence in Teaching and Mentoring)

As a basis for selecting excellent teachers, the Yunduo Award Key Points were first created in April 2012 to encourage teachers to not only impart knowledge but also provide guidance on personality, life, and morality and affirm their contributions and efforts. In principle, four to six teachers can win the award, at least one winner from each college. All full-time teachers of our school who have served continuously for more than 2 years until the end of the school year are eligible for the Yunduo Award. Winners of the Yunduo Award will be publicly announced at the school celebration and will receive a prize of 50,000 yuan and a medal. In addition, the winners need to provide tutoring and mentoring experience at the meeting. Through the exchange of experience, the school's tutoring effectiveness will be improved.



Numbers of
outstanding teachers



Numbers of
excellent teachers

105
Academic year



Numbers of
outstanding teachers



Numbers of
excellent teachers

106
Academic year



Planning and operation mechanism of the selection system for service-excellent teachers

To encourage teachers with specific outstanding performance to take part in or handle the administrative work of their affiliated departments or administrative units, the school has established the "Key Points on Rewarding for Service-Excellent Teachers" in 2007 as the basis for selecting service-excellent teachers. Two teachers can win the award in each academic year. Every college will collate the list submitted by the departments and form a selection committee to review the list, with the dean as the convener. It will then recommend excellent teachers to the ministry of personnel for reorganization and submit to the school selection committee for deliberation. The winners will be publicly praised by the president and receive medals and bonuses of 20,000 yuan at school meetings.

Planning and operation mechanism of the selection system for quality-excellent teachers

The Key Points for Rewarding Quality-excellent Teachers at All Levels of Schools is formulated by the Ministry of Education to encourage engagement in long-time teaching work among teachers and invest most of their energy in education. Every year, the Personnel Office creates a booklet that is reviewed by each department. After signing and approval, it is submitted to the Ministry of Education for a bonus of 10, 20, 30 and 40 years respectively. The winners will be publicly praised by the president and receive medals at school meetings. In addition, the Ministry of Education also holds a general meeting in recognition of senior excellent teachers on Teachers' Day every year and commends senior excellent teachers who have served more than 40 years.

Numbers of Winners of quality-excellent teachers in the academic year of 105, 106, and 107

(105 years ● 106 years ● 107 years ●)

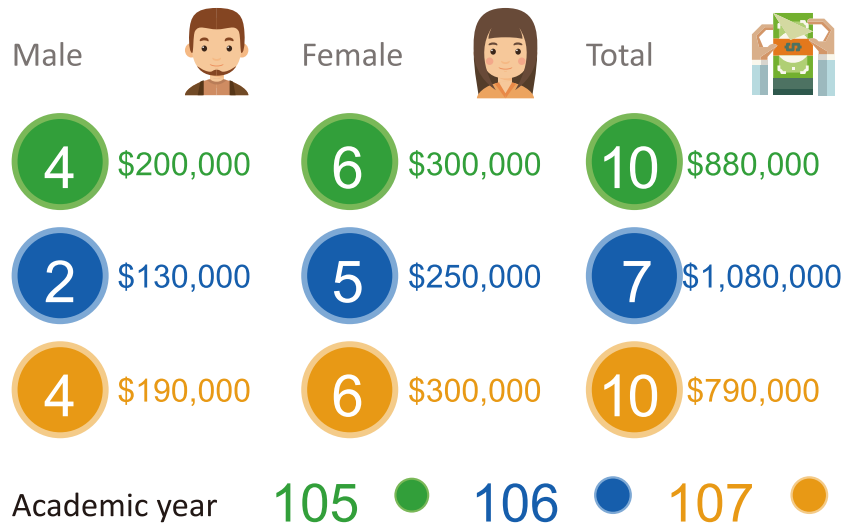


Industry-academia cooperation reward

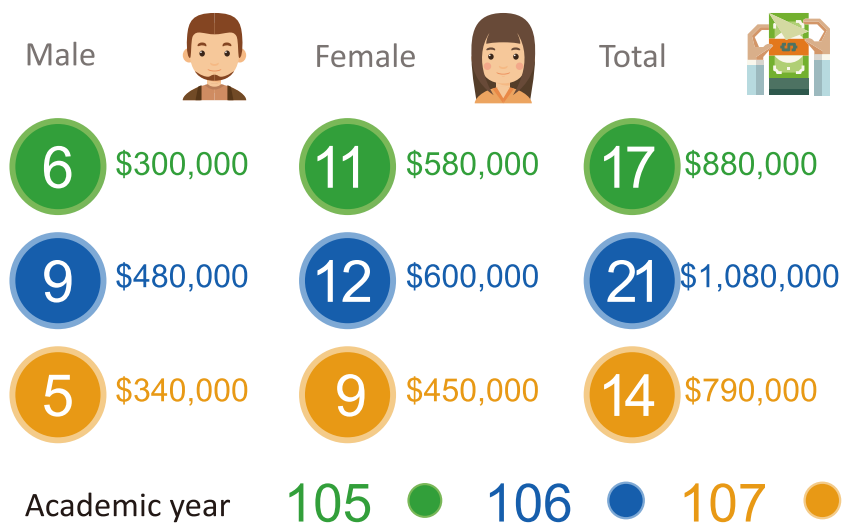
YunTech has established incentive systems such as the Key Points on the Flexible Wage System under the Higher Education Sprout Project, the Key Points on Arranging Lectures by the Feng Tay Foundation, and the Key Points on Awarding for the Publication of Academic Journal Papers and Participation in International Art and Design Competitions to encourage teachers to invest in academic research and the industry-academia cooperation and recruit, as well as retaining special outstanding talents.

Year	Research		Industry-academia cooperation		Total	
	Number of People	Total Amount (NTD)	Number of People	Total Amount (NTD)	Number of People	Total Amount (NTD)
2016	142	5,229,032	11	1,431,844	153	6,660,876
2017	141	6,570,136	11	1,543,949	152	8,114,085
2018	154	11,475,979	48	6,809,808	202	18,285,787

Amount and number of people of first-time applicants for freshmen merit scholarships in the academic year of 105 to 107



Amount and number of people of applicants who continuously apply merit scholarships in the academic year of 105 to 107



Student Rewards

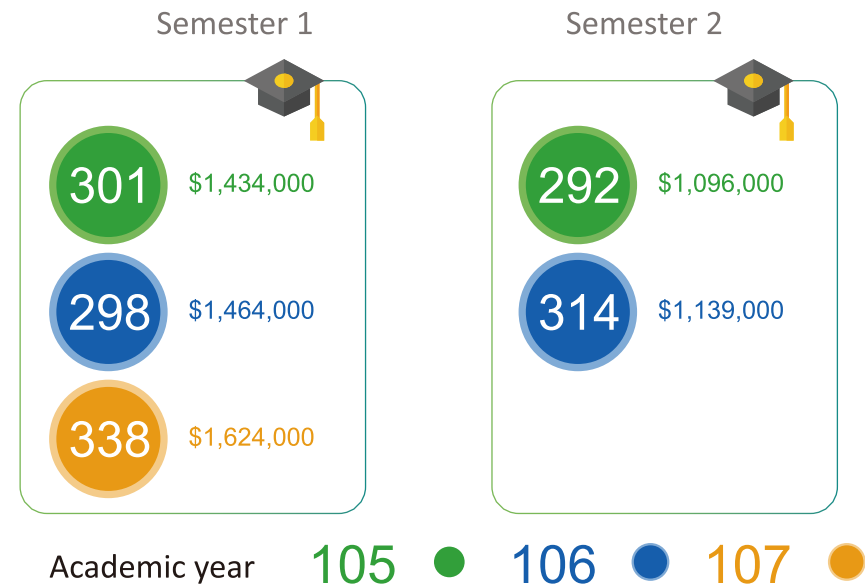
Merit Scholarship

The Key Points of Merit Scholarship are formulated to reward outstanding students at home country and abroad in order to improve students' learning performance. Students who meet the requirements for the first-time application and are eligible for various scholarships due to outstanding achievements during admission are encouraged to enter the school.

Rewards for students of excellent scholarship and good character

The key points on rewarding students with excellent scholarship and good character are established to create a good study habit and motivate students to study hard and abide by the school mottos. Students who are the top three in each class based on academic performance according to the performance and records of failing subjects, punishment records, and record of absenteeism, with behavior-performance scores above 80 points and sports scores above 70 points will be awarded. In addition, their tuition will be partially or fully waived and they will be awarded certificates at public meetings.

Number of students and total amount awarded to students with excellent scholarship performance and good character in the academic year of 105 to 107



Off-campus Outstanding Student Awards

The Key Points for Off-campus Outstanding Student Awards are formulated to reward students for participating and winning in national or international competitions or contests in order to inspire students to invent and strive for various honors.



Awards to International and Domestic Competitions and Contests

YunTech specially subsidizes outstanding works to encourage the school's teachers and students to participate and win in domestic and foreign competitions or contests in order to expand their vision. YunTech specially subsidizes outstanding works to participate in various international and national famous invention competitions and contests. Professors and students jointly participated in the contests, including the Moscow International Salon of Inventions and Innovation Technologies Archimedes, International Invention, Innovation, and Technology Exhibition (ITEX) in Malaysia, International Women's Invention Exposition (KIWIE), The Invention and New Product Exposition (INPEX, USA) in Macao International Innovation and Invention Exposition (MiiEX), World Genius Convention and Invention Exhibition, Taipei International Invention Show and Technomart, International Salon of Inventions and New Technologies New Time, International Warsaw Invention Show (IWIS), Seoul International Invention Fair (SIIF), Hong Kong International Invention and Design Competition (IIDC), and German iF Design Award (Professional concept).

Number of Medals that Yutech students who won in domestic and international competition from 2016 to 2018



03 /

Organizational Governance and stakeholders' participation

Major issues of this chapter

- Academic and educational ethics
- Human resources management



3-1 / Governance procedures

Organizational governance is the process of establishing assistance and control mechanisms for senior executives to encourage them perform their duties well so that the stakeholders are assured of long-term survivability and competitiveness of the organization. In accordance with the university regulations, the Ministry of Education and school affairs development plan, our school establishes various synods and committees which are responsible for supervising and assisting the decision-making of schools, colleges, and departments to ensure that stakeholders are treated reasonably and fairly and ensure the long-term development of the school.

School synod -the highest administration unit

According to the organizational rules of our school, the school synod is the highest decision-making administration unit for deliberation on major matters of school affairs. The chairman of the synod is the president and it is composed of academic and governance representatives, including teacher representatives, researcher representatives, staff and other related personnel representatives, janitors' representatives, and student representatives, who are responsible for reviewing development plans and budgets of school affairs, organizational regulations and various important rules, establishment, changes and suspension of departments, institutes, departments and affiliated institutions, educational affairs, student affairs, general affairs, research, and other important matters in the school, discussion on teaching evaluation methods, the resolutions of the committee or project team established by the school affairs meeting, meeting proposals, and the president's proposals.

The meeting shall be held at least once every semester and the school affairs meeting shall request a temporary school affairs meeting if more than one-fifth of members is present. The representatives of the school affairs synod shall be appointed for one academic year except for the academic and administrative supervisors who are appointed according to their positions.

Composition and selection method of representatives

◎ **Representatives of academic and governance supervisors** : presidents, vice presidents, deans of colleges, deans, directors of student affairs, directors of general affairs, directors of research and development, library directors, directors of the Office of International Affairs, directors of general education centers, directors of Information technology services center, directors of the Center for Excellence in Learning and Teaching, directors of the Office of Physical Education, directors of the Secretariat, directors of the Personnel Office, directors of the Accounting Office and directors of Development Center of School Affairs.

◎ **Teacher representatives** : selected by full-time teachers (including project teachers) from various departments, institutes, and general education centers through a secret ballot. The selected numbers of teacher representatives are proportion to the numbers of professors, associate professors, assistant professors, and lecturers of departments and institutes.

◎ **Researcher representatives** : Selected by full-time researchers (including assistant researchers), one representative is elected for every twelve people. Additionally, the total number of representatives for the research center are limited to two people.

⦿ **Representatives of staff and other related personnel** : Four people are, selected by civil servants, teaching assistants, military training instructors, sparse science and technology personnel and garrison police, project researchers, and school affairs staff.

⦿ **Janitor representatives** : One person is selected by authorized janitors.

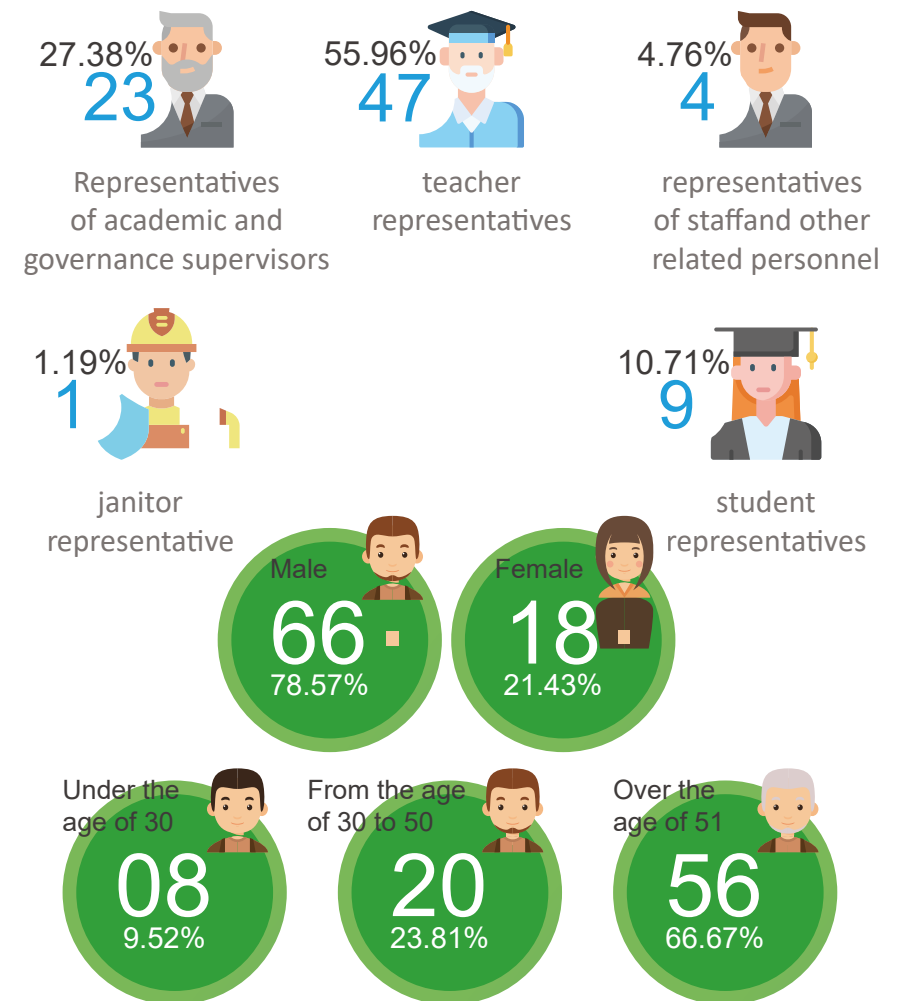
⦿ **Student representatives** : The proportion is one-tenth of the total number of members of the school synod, which is elected by the Office of student affairs.

Synods and committees

YunTech has set up various synods and committees for handling and discussing major business matters. Important decision-making synods at the school level include school synods, governance synods, supervisors' synods, and synods in various offices. But the most important one is the synod of the colleges and departments. Group decision-making can prevent the individual's interests from damaging the stakeholder' s interests. In addition, the school has established 22 committees so far, which are respectively responsible for administration, social, economic, and environmental discussions, supervision, and decision-making. For example, teacher evaluation committees at all levels are responsible for deliberation on the recruitment of new teachers, promotion, and dismissal of teachers. The curriculum committee is in charge of reviewing the decision of the department's curriculum increase, decrease, and change. Through the operation of various meetings and committees, YunTech can obtain the best decision quality through a collaborative discussion between various experts from five colleges.

The problems of improper organizational governance and damage to the interests of interested groups are thus avoided through all kinds of resolutions from levels of different organizational units.

The composition of the school synod in the academic year of 107



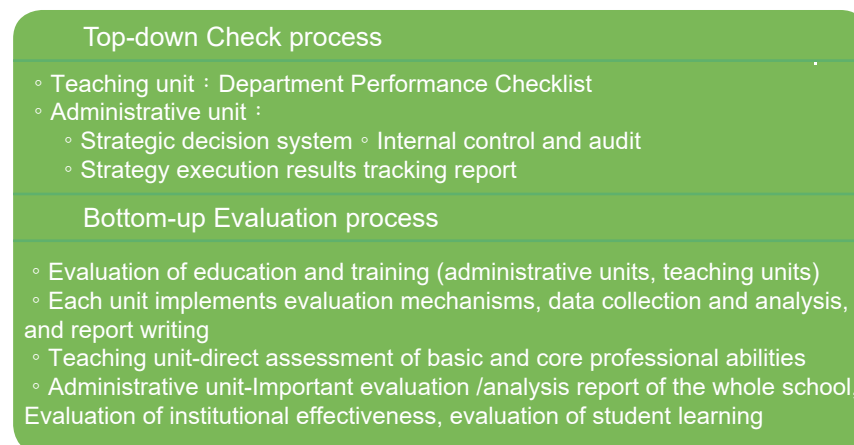
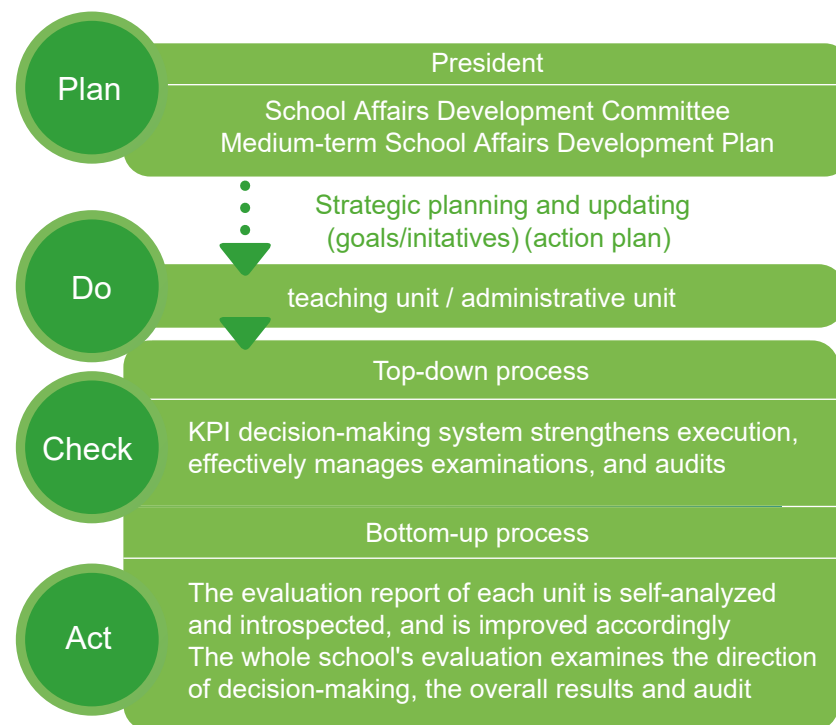
Situations of operation of committees

Number	Name of committee	Sponsoring business unit	Responding orientation
1	Teacher Evaluation Committee	Personnel Office	Society, economy, and governance
2	Teacher Appeal Review Committee	Personnel Office	Governance
3	Staff Screening Committee	Personnel Office	Governance
4	Staff Performance Appraisal Committee	Personnel Office	Governance
5	Student Reward and Punishment Review Committee	Office of Student Affairs	Governance
6	Student Appeal Review Committee	Office of Student Affairs	Governance
7	Curriculum Committee	Office of Academic Affairs	Society, economy, and governance
8	Fund Audit Committee	Secretariat	Governance
9	Endowment Management Committee	Secretariat	Governance
10	School Affairs Development Committee	Institutional Research and Planning Center	Society, economy, environment, and governance
11	School Affairs Research Committee	Institutional Research and Planning Center	Society, economy, environment, and governance
12	Gender Equality Education Committee	Secretariat	Society
13	Counseling and Guidance Committee	Counseling Center	Society
14	Library Committee	Library	Society
15	Admissions Committee	Office of Academic Affairs	Society and economy
16	General Education Committee	Center of General Education	Society and economy
17	Industry-Academia Cooperation Committee	Office of Research and Development	Economy
18	Patent Review Committee	Office of Research and Development	Economy
19	Occupational Safety and Health Committee	Technology Center of Environmental Safety	Environment
20	Toxic chemicals Handling Committee	Technology Center of Environmental Safety	Environment
21	Campus Planning Committee	Office of General Affairs	Environment
22	Sustainability and Social Responsibility Committee	Institutional Research and Planning Center	Society, economy and environment

Since the foundation of YunTech, the president has convened the governance, academic head and teacher representatives to form the Institutional Research and Planning Committee. Facing rapid changes in the educational and industrial environment, it has been in the transformation plan for the next five years based on the four aspects of Higher Education Sprout Project (HESP) with the goal of creating a new model of 2022 University of Science and Technology and shape a practical model for universities of science and technology. In order to focus on the five-year transformation plan, the period of the school affairs development plan has been changed from ten years to five years based on the medium and long-term plan of domestic and foreign universities. In the meantime, the medium-term and long-term Development Plan have been renamed to "Medium-term Development Plan". According to the plan, we have set up school goals to plan the overall short-term (1-2 years) and mid-term (3-5 years) development strategies of school affairs, and build a blueprint for future development.

To implement the medium-term development plan and the cyclical quality management (PDCA) gradual improvement mechanism, the school's school affairs development has been extended to five major parts according to the school management philosophy, including education governance, academic governance, governance support, energy conservation and carbon reduction, industry-academic cooperation, and international cooperation and exchange. Based on the top-down procedure, the five leading units (Office of Academic Affairs, Office of Student Affairs, Office of General Affairs, Office of Research and Development, Office of International Affairs) and their relevant units jointly formulate check values, target values, and short and medium-term development plans. We use the evaluation procedure of bottom-up to regularly check and achieve the school vision and goals by auditing and internal control.

Assurance mechanism of the school quality



The school affairs development committee and school affairs development execution working group are established to promote the development of school affairs, review the mid-term development plan and other related matters of school affairs supervision, consultation, and deliberation. The director of the School Affairs Development Center is also the Executive Secretary and the School Affairs Planning Group of the School Affairs Development Center handles the administrative matters and participates in the School Affairs Development Committee meetings.

In addition to continuously strengthening the basic operating efficiency and effectiveness of the school, the mid-term plan of the school focuses on the implementation of the Higher Education Sprout Project in the short term. The plan is adjusted timely to gather the consensus of the whole school and formulate a policy of collective efforts in response to national development policies, industrial technology needs, globalization trends, and school affairs development needs. Thus, YunTech's comprehensive competitiveness will be improved as it will set up a practical model for adaptive development of science and technology universities and students, teacher cross-domain cooperation dedicated to application-oriented R & D, and international influence in technical and vocational education, practical problem solving, and basic research.

In response to the rapid changes in the higher education environment, YunTech actively participates in inter-school and extra-school alliances and public associations, such as the Alliance of Five Colleges and Universities, Yunlin Government-Academia Collaboration, Regional Industry-Academia Cooperation Center (Ministry of Education) and

Industry-Academia Partnership Executive Office, Academia-Industry Consortium Science Parks Central Taiwan, Institute of Engineering Education, Taiwan, R.O.C, Association of National University of Science and Technology, Taiwan, R.O.C, Alliance of Colleges and Universities at Changhua, Yunlin and Chiayi Counties, Intercollegiate Alliance of Central Technical Colleges, Taiwan Association for Higher Education, Association of National Universities of Taiwan, Taiwan Industry-Academia Promotion Association, Academia-Industry Consortium of Taichung Software Park in Taiwan (AICTSP), Alliance of National Universities at Yunlin County, the 10th Convention on Biological Diversity, and the International Partnership for the Satoyama Initiative proposed by the Japanese government and UNU-IAS. Through strategic alliances with organizations, we integrate resources and complement each other, open up resources for mutual benefit and sharing, establish inter-school friendly alliances, and improve the quality of education and academic standards of our school.



3-2 / Risk analysis and internal control

Risk analysis

The overall educational environment of our country's higher technical and vocational system is currently facing issues on the implementation of the twelve-year education the worsening of the low birth rate, the widening gap between urban and rural areas in terms of the six main cities of Taiwan, the gradual opening of the mainland China diploma, the growth trend of international education environment, and the aging society.

External influential factors of the overall educational environment

Factor one

the implementation of the twelve-year education

The government has implemented the twelve-year national education policy since 2014 - aiming to improve the national quality, alleviate the pressure of further education, promote the normalization of junior high school teaching and the appropriate development of students in senior secondary schools and enhance the quality of students for building a solid foundation for higher education. However, statistics from the Statistics Department of the Ministry of Education show that the number of high school graduates in our country has shown a fundamental change in the past decade. Since 2003, vocational graduates outnumbered high school graduates. Now the trend is the opposite, there are more high school graduates than vocational graduates and the gap between them is widening year by year. After the official implementation of the 12-year education, the source of students in the technical and vocational schools lose students to the general education system, which will be more detrimental to our school that takes graduates from higher vocational schools as the main source of students. Therefore, we should review the school's overall curriculum structure and plan in response to the 12-year education policy to attract outstanding talents.

Factor two

the low birthrate becomes worse

According to the estimates on population growth published by the Chief Accounting Office of the Executive Yuan, the number of people aged 0 to 14 in our country will show a decreasing trend year by year in the next 20 years. The further decline of the birthrate has affected university admissions. The Ministry of Education expects college freshmen will drop sharply since 2016. In 2016, the number of first-year college students reduced to 252,058, a decrease of 19,050 from 2013. In 2028, the number of college freshmen is expected to reduce to 156,408 and will increase slightly to 163,038 in the following year. In the next 14 years until 2029, the average annual decrease will be nearly 7,000, with an annual decrease of 3.13%. As the birthrate decreases year by year, the problems of declining enrollment and student quality faced by various schools will become worse. At present, the total number of secondary vocational school graduates is lower than the total annual enrollment of junior colleges and the gap is growing. Our school must establish educational characteristics that are different from those of ordinary universities in order to attract and nurture outstanding talents needed by the industry.

Factor three**the situation in the six main cities of Taiwan is widening the talent and development gap between urban and rural areas**

With the expansion of the autonomous forces of six main cities of Taiwan and the effect of industrial clustering, talents, resources, and funds have been moved to regions with good industrial development. Remote counties and cities are further marginalized in the distribution of talents and resources, thus tending towards zero-sum development and becoming weaker in regional development. The unevenness of "big cities and small counties" will become more evident. If young adults tend to be more developed in metropolitan, the concentration of the aging population in rural areas will increase and resources and construction will be biased towards metropolitan areas for a long time, forming a development gap between counties and cities. Our school is located in Yunlin County, where industry and commerce are less developed. In response to this environmental change, our school should actively play a role in solving local problems and prospering the local industry.

Factor four**the gradual opening of mainland China Diploma**

Under the globalization, the rapid growth of the mainland China's economy and trade recently has gained international attention. Due to the fierce competition in mainland China higher education, all countries are competing to attract outstanding talents from mainland China. Our country welcomes students from the mainland China who are unable to attend universities in the mainland China or want to study at an excellent institution in our country to address the shortage of college enrollments. Therefore, maintaining a cooperative and competitive relationship with the mainland China's higher education has become an important issue that the school should consider in its mid-term plan. At present, neighboring countries such as Japan and South Korea are actively recruiting students from mainland China while Taiwan's cultural and geographical proximity is more advantageous than other countries. Establishing a good relationship with mainland China higher education institutions and targeting excellent students from the mainland China will help improve our school's students' quality and competitiveness and enhance YunTech's reputation in mainland China.

Factor five

the growth trend of the international education environment

With the globalization in the 21st century, diversified and internationalized education is helpful to enhance national competitiveness and promote worldwide multi-faceted competition and cooperation. It is necessary for universities to promote internationalization for sustainable development amid the low birthrate and global competition with the creation of the World Trade Organization (WTO). According to the statistics of the Ministry of Education, the number of foreign students studying in Taiwan in recent years has increased and will continue to grow in the future. Therefore, YunTech should take advantage of internationalization by actively promote international exchanges between teachers and students and expand its alliances with foreign high-quality schools, to make it a model of Taiwan's international science and technology education.

Factor six

the trend of an aging society

The aging society occurs when a country has elderly (over 65 years old) population of more than 7% of its total population. Since September 1993, Taiwan's population over the age of 65 has reached 1.48 million, accounting for 7.1% of the total population, that is, it has entered an aging society. Until the end of August 2017, the number of elderly people in Taiwan has been 3.205 million, accounting for 13.6% of the total population as the country faces a long life expectancy and a rapid decline in the birth rate. In order to respond to the needs of the elderly, our school should actively pay attention to the problems they face, invest in relevant research and planning, and provide related services.

S

Strengths

- S1. Fruitful industry-academia research and development performance
- S2. Promote IIEET and AACSB certification to conform to international standards
- S3. College of Design has outstanding performance
- S4. The quality of teachers ranks first among other universities of science and technology in the central area of Taiwan
- S5. The most promising young potential university from companies' points of views
- S6. Teaching innovation
- S7. Excellent industrial strength and complete industrial chain
- S8. The high employment rate among other universities of science and technology
- S9. The attendance rate of Daytime Bachelor Class ranks first in the country
- S10. High amount of merit scholarships
- S11. Sounding financial structure with stable growth
- S12. Rich book resources
- S13. Perfect campus planning and high-quality learning environment

Weaknesses

- W1. Geographically weak
- W2. It is not easy for alumni to raise funds for as the school is established late in recent decades only
- W3. The less number of teachers decreases academic competitiveness
- W4. Education subsidies from government units are relatively low
- W5. Insufficient globalization makes it difficult to attract foreign students

W

O

Opportunities

- O1. Continuous subsidies from the Ministry of Education for the Higher Education Sprout Project
- O2. International AI plan desperately needs international talents
- O3. Leave free to act in international/cross-strait enrollment actively help recruit international talents
- O4. Ministry of Education subsidizes the appointment of project teachers to optimize the student-teacher ratio
- O5. PBL Center bridges the industrial demand
- O6. Innovative dual-track structure, creating a satisfactory university of science and technology in terms of developing appropriate student characters and develop excellent talents

Threats

- T1. The low birth rate has reduced the number of potential students
- T2. Fierce competition in academia at home and abroad countries
- T3. Asian countries focus on developing key universities
- T4. Globalization induces international competition
- T5. The quality of technical and vocational students has been declining year by year and the research ability of graduate students is slightly insufficient

T

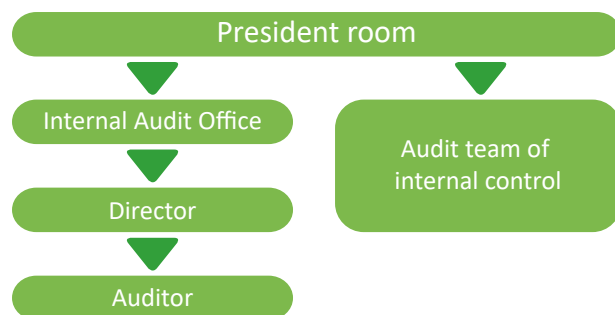
YunTech has made good use of the teaching excellence and development model of the University of Science and Technology to cope with education challenges for the past ten years. It has worked hard to cultivate industry and national talents and has been recognized at various school affairs. YunTech, located in Yunlin County, can persist in educational innovation and continue to exert its influence because it regards school performance as a growth indicator of industries and localities for 28 years since its establishment. An average of 8% of international students also shows that the school complies with the internationalization of education.

The Higher Education Sprout Project proposed by our school in 2018 is based on "renewing Taiwan's technical and vocational education". The main plan is how YunTech, as a national university of science and technology, continues to improve the quality of industrial talent cultivation based on self-research of school affairs and big education data. It also responds to the fundamental problems of contemporary Taiwan's technical and vocational education, including narrowing the gap between higher education and technical and vocational education (how to highlight the characteristics of the system), different learning performances of students (how to avoid using a single curriculum for the same set of rules, restricting multiple learning), and decoupling of industry-academia cooperation and talent cultivation (how to enable technical students to benefit from the actual participation in industry-academia cooperation and grow with industry within four years in the university). In the future, YunTech will not only continue to pursue diversified excellence based on the original faculty-style teaching system and fully set up PBL courses but also initiate the structural adjustment project at the school level. The purpose is to create a talent training program that can specifically add value to the existing higher technical and vocational education system in the

process of improving the performance of practical talents and create additional value for Taiwan's technical and vocational education (industrialization, responsibility, and specialization) at the same time. It is expected that by 2022, YunTech will create a new educational structure that effectively combines industrial issues, school responsibilities, and research and innovation within the system. Also, it will go hand in hand with the existing college system to achieve the goal of industrial docking and appropriate promotion.

In order to strengthen and ensure the continuous and effective operation of the internal control system, enhance the effectiveness of governance administrated by regulations and prevent financial abuses, our school has formulated the key points for setting up the project team of internal control based on the Implementation of the Internal Control Implementation Plan of the Executive Yuan. Our school holds a meeting every semester to review the implementation of internal control in each unit. It formulates the manual of the internal control system to regularly review and revise it in line with laws and business operations and implement education and training to enable business contractors to understand the importance and operation of internal control. According to the Implementation Plan for Evaluation of Internal Control System, our school implements self-assessments at the homework level and the whole level once a year. The project team of internal control reviews the project reports of the internal control system of each business unit every year and provides improvement suggestions to reduce operating risks. Additionally, in accordance with the amendments in the Principle of Self-Assessment of Internal Control Systems of Each Institution of the Executive Yuan, our school revises the self-evaluation implementation plan of internal control.

To assist each unit in the inspection and review of the implementation of the internal control system, our school sets up an internal audit office as a special audit unit in accordance with the provisions of Article 7 of the Regulations on the Establishment of Junior College Affairs Fund of National University of the Ministry of Education. The internal audit office was officially established on February 1, 2019, with one director and one auditor. In addition, according to the Key Points of Operation of the Government's Internal Control Supervision promulgated by the Executive Yuan, the Key Points for the Establishment of the Internal Control Audit Team of the National Yunlin University of Science and Technology was specially formulated and form the Audit Team of Internal Control of the Yunlin University of Science and Technology.



To establish an objective and fair view, assist schools in the review of the implementation status of internal control systems and provide timely improvement suggestions to reasonably ensure that internal control systems can continue to operate effectively and promote schools to achieve administrative objectives, our school sets the key points for the audit team of internal control based on the Precautions for Internal Audit of the Government of the Executive Yuan. Our school holds irregular meetings every year to review the implementation of internal control audits, formulate an internal control system and self-evaluation implementation plan, and supervise the implementation of the evaluation plan.

The internal control audit team is in charge of :

- ⦿ Formulating and implementing the annual audit plan and review the self-assessment results of each unit's internal control system.
- ⦿ Reviewing assessment operations of the internal control system and handle the work of internal audits.
- ⦿ Check and evaluate the operational matters of each unit and provide improvement suggestions timely to reasonably ensure the achievement of goals.
- ⦿ The internal audit finds and improves the deflection, signs, and approvals by the head of the department and tracks improvement.

The audit plan is divided into annual audits and project audits. Annual audits are based on the results of risk assessments and are determined to be audited annually or audited. Based on the results of the risk assessment, the annual audit results determine the following annual audit work or items. Project audits involve matters of high risks, such as designated cases, abnormal matters, or external concerns. During the internal audit, if a major breach is found or the school is in danger of major damage, it will be immediately signed to the president for processing.

To implement the self-monitoring mechanism, YunTech internal audit department urges all units to achieve administrative goals and improve operational efficiency. We assemble the risk coefficient table of each control operation of our school's each unit and formulate an audit plan for the high-risk control operation project. In 2018, the Audit Office audited 37 professional works, proposed 14 improvement measures or specific reform suggestions, and continued to track whether each unit has completed its improvements in 2019.

3-3 / Communication with Stakeholders

YunTech Stakeholders



Identification of and Communication with Stakeholders

YunTech stakeholders are defined as individuals or organizations that have direct or indirect impacts on the school and are affected by the school. Based on this definition and in accordance with the discussion and approval of the working group meeting of the Sustainability and Social Responsibility Committee, it is established that major

stakeholders that the school communicate with are students, parents, faculty, suppliers, members of communities, government organizations, alumni, enterprises and non-governmental organizations (NGO).

YunTech attaches great importance to communicating with stakeholders. In addition to relevant activities, meetings, and investigations, YunTech uses diversified communication channels to communicate. The Secretariat has set up a "System of Advice on School Affairs" in the second semester of the 2017 academic year to provide a platform for students and faculty to express opinions or responses on school-related issues. From 2017 onwards, an Accountability Report on School Affairs is published in December each year. The report will select important issues for statistical analysis in terms of basic information about the school, its enrollment and admission, expenditure on schooling expenses, running costs, learning experience, graduation and employment, research and development and social contributions, and stakeholders' satisfaction. The relevant results will be publicized. And diversified communication channels are set up to receive stakeholders' advice and feedback.

YunTech Stakeholders' Concerns and Communication Channels (American editors should pay attention: Communication channels and communication frequencies are aligned. Concerns are not related to channels and frequencies)

YunTech Stakeholders' Concerns and Communication Channels

Stakeholders	Students	
Issues of Concern	Communication Channel	Communication Frequency
Teaching Quality	A system that offers advice on school affairs	Any time
Learning Outcomes	YunTech's Accountability Report on School Affairs	Once a year
Teaching Resources		
Curriculum Planning	Student Appeal	Any time
Internship and Employment Opportunities	Appointment with the president	Once a year
Safe and Hygienic Campus Environment	Mentor time	Periodically
	School Affairs Conference	Once a semester
	Service Satisfaction Survey	Once a semester
	Teaching Assessment	Once a semester
	Survey on Satisfaction on tutorial system implementation	Once a semester
	E-mail Address of Each Unit	Any time

Stakeholders	Faculty	
Issues of Concern	Communication Channel	Communication Frequency
School Administration	System of Advice on School Affairs	Any time
Brand Vision	YunTech Accountability Report on School Affairs	Once a year
Financial Performance		
Sustainable Development	Consensus Camp	Once a year
Risk Management	E-mail Address of Each Unit	Any time
Occupational Safety and Hygiene of Faculty	School-wide Teachers' Conference	Once a semester
Career Development and Training for Faculty	School-wide Tutors' Meeting	Once a semester
Teaching and Research Environment	School Affairs Conference	Once a semester
	Faculty Appeal	Once a semester

Stakeholders	Parents	
Issues of Concern	Communication Channel	Communication Frequency
Teaching Quality Learning Outcomes	YunTech Accountability Report on School Affairs	Once a year
Teaching Resources Curriculum Planning	Seminar for Parents of New Students	Once a semester
Internship and Employment Opportunities Safe and Hygienic Campus Environment	School Homepage	Any time
School's Reputation	E-mail Address of Each Unit	Any time

Stakeholders	Alumni	
Issues of Concern	Communication Channel	Communication Frequency
Teaching Quality	System of Advice on School Affairs	Any time
Learning Outcomes Student' Health and Safety	YunTech Accountability Report on School Affairs	Once a year
Teaching Resources	School homepage	Any time
Curriculum Planning School's Reputation	Research on Colleges Students' Career Pathways	1, 3, and 5 years respectively after graduation
	Alumni Association	Periodically
	Alumni Service Platform	Any time
	E-mail Address of Each Unit	Any time

Stakeholders	Government organization	
Issues of Concern	Communication Channel	Communication Frequency
School Affairs and Department Evaluation	Secretariat	Any time
Brand Vision	YunTech's Accountability Report on School Affairs	Once a year
Learning Outcomes	School Homepage	Any time
Curriculum Planning	Teaching Assessment	Periodically
Student' Health and Safety	Certification of Professional	Periodically
Sustainable Development	Bodies	Periodically

Stakeholders	Corporate Employer	
Issues of Concern	Communication Channel	Communication Frequency
Teaching Quality	Research and Development Branch	Any time
Brand Vision	YunTech's Accountability Report on School Affairs	Once a year
Learning Outcomes		Once a year
Curriculum Planning	School homepage	Any time
Internship and Employment Opportunities	School homepage	Any time
Student's Health and Safety	Employer satisfaction survey	Once a year

Stakeholders	The community	
Issues of Concern	Communication Channel	Communication Frequency
Environmental and Ecological Sustainability	Secretariat	Any time
Community and Social Justice	YunTech's Accountability Report on School Affairs	Once a year
Community Development and Interaction		
Energy Consumption and Management	School Homepage	Any time
Water Use		
Waste and Waste-water Treatment		

Stakeholders	Suppliers	
Issues of Concern	Communication Channel	Communication Frequency
Supplier Management	School Homepage	Any time
	General Services Section	Any time

Stakeholders	NGO	
Issues of Concern	Communication Channel	Communication Frequency
Reducing Environmental Impact and Campus Management Policy	Secretariat	Any time
Service Learning and Volunteer Service	YunTech's Accountability Report on School Affairs	Once a year
	School Homepage	Any time

Major Issues and Impact Assessment

In order to accurately understand the issues of interest to stakeholders, 13 major topics were selected through four steps of identification, ranking, validation, and review, which are explained as follows

1. Identification

YunTech listens to stakeholders' concerns, uses the school affairs and trends in international sustainable development as the basis for the topic collection and then summarizes 25 topics based on their relevance and how they relate to the characteristics of the school, which served as the design guidelines for the follow-up School Affairs Development Committee, Sustainability and Social Responsibility Committee, the Consensus Camp in Charge.

2. Ranking

After consultation and discussion with the executive, the working group meeting of the Sustainability and Social Responsibility Committee, the topics will be selected based on operational impact and impact degree and degree of concern.

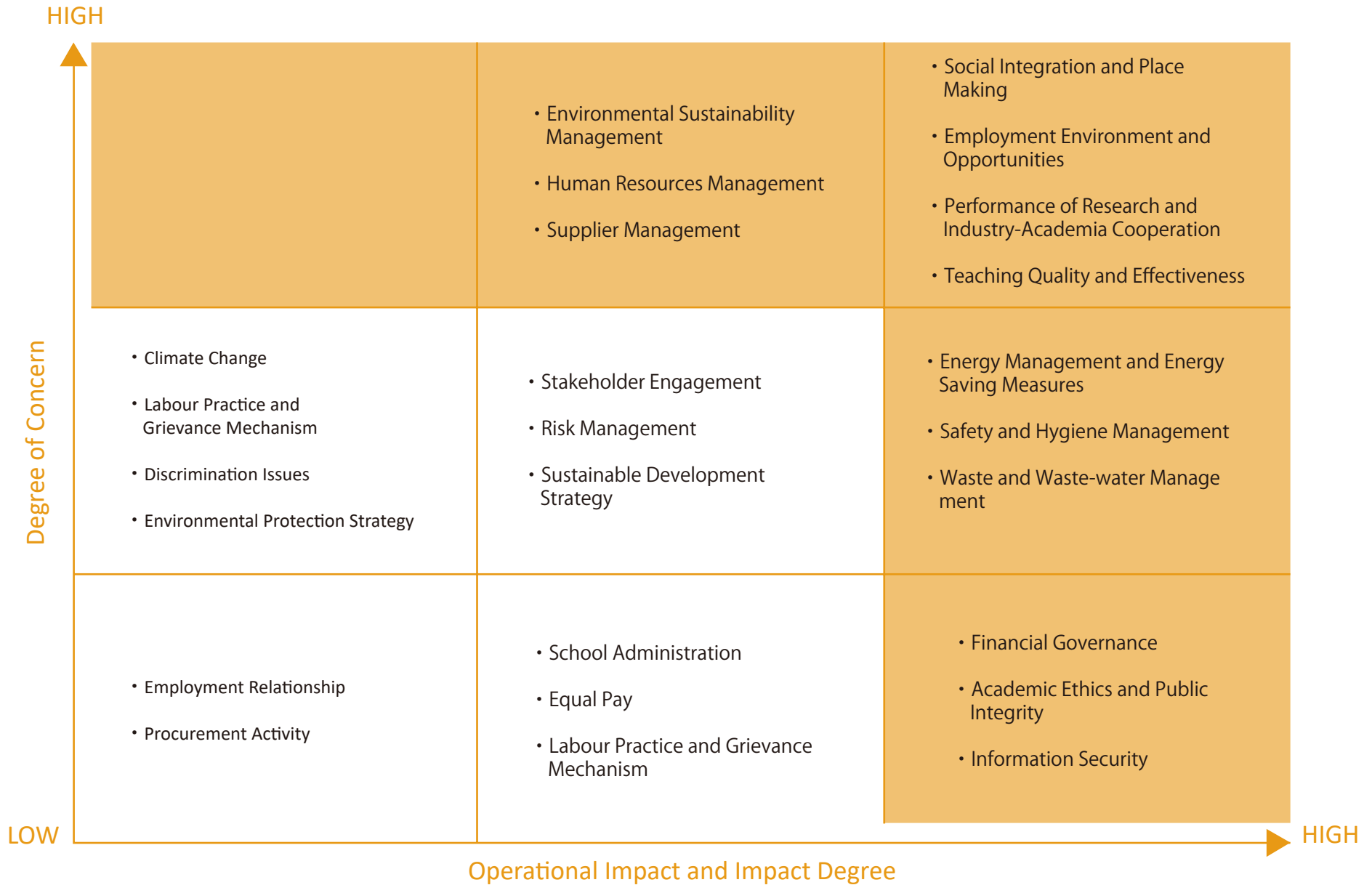
3. Validation

Through the resolution of the working group meeting of the Sustainability and Social Responsibility Committee, 13 major topics on sustainable development are identified based on the matrix of operational impact and impact degree and degree of concern, which are then mapped to special topics of GRI standards and their management policies and relevant performance information is then disclosed.

4. Review

Every year, the matrix of major issues is revised based on collecting the opinions and feedback of stakeholders and evaluating the developments in school affairs and trends in international sustainable development.

Redrawing the Matrix



Disclosure of the Management Policy for Major Issues and Their Boundary Analysis

Teaching and Administrative Input, Teaching and Administrative Activities, Research and Development Achievements, School Image and Marketing, and Community Service are the five major components of YunTech's value chain, which are also the impact boundaries that determine the disclosure of 13 major issues.

Sustainable Development Topic	Major Sustainable Development Issues for 2018	Special Topics of GRI Standards /On-campus Custom Issues	Value Key							
			Major Activities					Supporting Activities		
			Teaching and Administration Input	Teaching and Administration Activities	Research and Development Achievements	School Image and Marketing	Community Service	School Infrastructure	Human Resources Management	Procurement
Economy	Financial Governance	201 Economic Performance	★	★	★	★	▲	★	★	◎
	Social Integration and Place-Making	203 Indirect Economic Impacts				★	★			
	Employment, Environment, and Opportunities	Custom Issues		★	★	★				
	Performance of Research and Industry-Academia Cooperation	Custom Issues	★	★	★	★				
Environment	Energy Management and Energy-Saving Measures	302 Energy	★	★		★				
	Safety and Hygiene Management	403 Occupational Safety and Hygiene	★			★		★		
	Waste and Waste-water Management	303 Water, 306 Sewage and Waste	★	★						
	Sustainable Environmental Management	307 Compliance with Environmental Protection Regulations	★			★	▲			
Society	Academic Ethics and Public Integrity	205 Anti-Corruption	★	★	★	★			★	
	Human Resources Management	401 Employment Relationship, 405 Employee Diversification and Equal Opportunities	★						★	
	Information Security	418 Client Privacy	★			★			★	
	Supplier Management	414 Supplier Social Assessment								◎
	Teaching Quality and Effectiveness	Custom Issues		★	★	★				

★ : Direct impact ▲ : cause impact ◎ : business relationship impact

Management Policy for Major Issues and Their Elements

Our school has developed the following four strategies for school development :

- 1 Strategy** Build an environment for education that is adaptable to the needs of students and foster talents
- 2 Strategy** Construct a mechanism which links R&D achievements with new ventures
- 3 Strategy** Leveraging educational and R&D resources to solve local, industrial, social, and global problems
- 4 Strategy** Continuous Innovation and reform of school affairs

YunTech takes the "School Affairs Conference" as the highest decision-making unit to decide on major issues concerning school affairs and drawup guidelines for school operations. In addition, the school also has 22 committees to supervise, discuss, and make decisions based on the degree of impact caused by governance, society, economy, and the environment. They divide their work and cooperate with each other to fulfill their respective responsibilities.

The strategies and action plans corresponding to the major topics in 2018 are as follows :

Management Policy 1

Major Topics on the School's Sustainable Development	Financial Governance \ Information Security	
Reasons for Choosing Major Topics	In light of the development trend in higher education, our mission is to improve the quality of education. The planning and allocation of funds are crucial to the overall development of school affairs. To ensure the sustainable operation of the School Affairs Fund and to enhance its benefits for the development of school affairs, the School Affairs Fund should review its revenues and expenditures and set financial objectives and targets to improve managers' ability to make decisions on resource allocation and evaluate the financial status and cash flow of the main body to improve the operational performance. Due to increased awareness on personal data privacy and security, the school has taken appropriate control measures to establish a safe and reliable information environment to protect stakeholders from internal or external threats, whether intentional or accidental, and to ensure information security.	
Special Topics of GRI Standards	201 Economic Performance \ 418 Client Privacy.	
Policy	According to Strategy 4 of the medium-term plan for school development 2018-2022 : Continuous Innovation and Reform of School Affairs.	
Promises	Taiwan is increasingly childless. In the midst of economic globalization, the competition in higher education has become fierce. To survive in this complex environment, the school needs to grow steadily year by year. It is necessary to make continuous innovation and reform in school affairs, to ensure the stable and sound development of school affairs and to maintain the long-term operation of the school, so that finally achieving the goal of creating an innovative, diversified, friendly, and sustainable campus. We will help teachers and students establish the concept of information security, implement information security controlling measures, and promote information security education to continuously ensure information security and avoid security breaches.	
Objectives and Targets	<p>Short-term: Achieve the performance target of each unit and no cases of personal data leakage.</p> <p>Medium-term: In the school management side, incorporate the higher education publicity with students' learning side, implement teaching innovation, and improve teaching quality; in the social environment side, implements social responsibility.</p> <p>Long-term : Sustainable development of the school. (Strategy 4)</p>	
Responsibility and System	<p>External Responsibility : The overall plan of the Ministry of Education (Higher Education Sprout Project (HESP)), Personal Data Protection Law.</p> <p>Internal System : Measures for the Administration and Supervision of School Endowment of the National Universities, Information Security Management Policy.</p>	
Resources Invested	About 2,563.84 million yuan. (including the school budget and the overall development funds of the Ministry of Education)	
Grievance Mechanism	<ol style="list-style-type: none"> 1. System of Advice on School Affairs. 2. Endowment Management Committee. 3. Accounting and Statistics Office line and Mailbox : 05-5342601 # 2570-2577, # 2581-2589; acx@YunTech. edu.tw 4. Information Security Website Bulletin. 	
Specific Strategies / Actions	<ol style="list-style-type: none"> 1. Anaction plan for energy classification of production, research,and development. 2. Action Plan for Guidance on Innovation and Entrepreneurship 3. Action Plan for the Establishment of Chien-Chan Bachelor's Degree Program. 4. Action Plan for the Establishment of the Bachelor's Degree Program in Industrial Projects. 	<ol style="list-style-type: none"> 5. Action Plan for New-Type Exploration of the Industry. 6. Action Plan for Big Data-Driven School Affairs Development. 7. Action Plan for Improving School Publicity with Mass Media. 8. Action Plan for Attracting Famous Academic Scholars. 9. Action Plan for the Construction of a Social Practice Knowledge System. 10. Information and personal data security training and certification.
Output Performance / Evaluation Mechanism	<ol style="list-style-type: none"> 1. Present an Accountability Report. 2. Targets achievement rate of each unit. 3. Performance report on school endowment. 4. Verified by the information and communication safety management regulations : 4 pieces 	<ol style="list-style-type: none"> 5. Verified by personal data management standards : 6 6. Information security and free software education and training : 23 sessions 7. Cases of personal data leakage : 0 8. Information security protection or threat attacks : 0

Management Policy 2

Major Topics on the School's Sustainable Development	Social Integration and Place-Making.
<p>Reasons for Choosing Major Topics</p>	<p>YunTech is committed to fulfilling the social responsibility of the university. Through promoting social practices, the university aims to enhance the social responsibility of its teachers and students on issues such as community industries, cultural history, and community issues. It also encourages its stakeholders to participate in these activities and to make it their civic duty.</p> <p>It takes effort to expand its participation so it encourages that different regions have more opportunities for development due to different regional topics. By encouraging more teachers and students with expertise in different fields to participate in social practice, the school does not only expand students' horizons but also increase more professional participation in the community, re-think and solve the problems encountered, and then achieve the innovation in regional social practice to achieve social integration.</p>
<p>Special Topics of GRI Standards</p>	<p>203 Indirect Economic Impacts</p>
<p>Policy</p>	<p>According to Strategy 3 of the medium-term plan for school development 2018-2022, YunTech will leverage educational and R&D resources to solve local, industrial, social, and global problems. Considering the disadvantaged groups as the demand-side customers is a way to achieve mutual benefits for the school, communities, and students. Its business model, which considers the disadvantaged groups as the demand-side customers and its employees, producers, and business owners in the value chain as the supply-side providers, will be incorporated into the operation strategy, working together for the mutual benefit and meet the needs of enterprises and society. Creating shared values is the core objective and vision of the enterprise.</p>
<p>Promises</p>	<p>To fulfill the local social responsibility of YunTech, based on our energy and experience as model university of science and technology, we should make the future teacher and student USR team continue to walk into the local area and demonstrate the mission of coexistence and co-prosperity, and we must effectively integrate with the existing local institutions and their resources (such as NGO, local government or youth groups), so as to expand synergy. In the past, the operation of USR was mainly based on industry-academia cooperation. How to speed up the integration with formal courses, expand student participation, and evoke the mission of Yunlin county students, so as to promote the joint work of students outside the county, is YunTech's sustainable interest in promoting USR.promoting USR.</p>
<p>Objectives and Targets</p>	<p>Short-term : Continued presence in existing USR practice sites. Medium-term : Continuous call for teachers to enter USR practice sites across Taiwan.</p> <p>Long-term : fulfilling social responsibility is the main focus of the school's sustainable development and its third goal is to leverage local, industrial, social, and global influence. Highlights of the program include advancing its social practice program" and USR Social Responsibility Program. through the concerted efforts of all teachers, students, and the community, to serve the local community for the purpose of effectively promoting the development of USR to achieve the goal of social integration. (Strategy Three)</p>
<p>Responsibility and System</p>	<p>AExternal Responsibility : From the region to the whole world, carry out local practice and link up the partnership of social practice value "YunTech is Everywhere".</p> <p>An internal system : to expand teachers' participation and create more teaching energy. YunTech plans to improve its supporting system, including curriculum design, implementation planning, teaching innovation, technical cooperation, professional complementarity, and sharing platform. The value of promoting this project lies in the function of the Social Practice Center and the Social Practice Platform.</p>

Management Policy 2

Social Integration and Place-Making.

Major Topics on the School's Sustainable Development	Social Integration and Place-Making.	
Impact and Risk Assessment	<ol style="list-style-type: none"> 1. Effective construction of a systematic knowledge base of social practice. 2. Implementation of the Total Solution Model to solve problems for the industry. 	<ol style="list-style-type: none"> 3. Mutual cooperation and resource sharing among teachers, students, and stakeholders. 4. No risk events occurred from 2015 to 2018 and the existing community making, sharing, and integration measures were maintained.
Resources Invested	The social practice investment is about 9.09 million yuan. (accounting for 6.11% of the total funds for the Higher Education Sprout Project)	
Grievance Mechanism	1. A system that offers advice on school affairs. 2. Faculty Appeal Review Committee. 3. Measures for handling students' appeals.	
Specific Strategies / Actions	<ol style="list-style-type: none"> 1. Organize social practice workshops, international case presentations, and experience sharing sessions. 2. Build a systematic knowledge base of social practice. 3. Set up a research center for sustainable development and social practice. 4. Promote life aesthetics and community service in the county of Douliou, Yunlin. 5. Integrate community resources to promote the redevelopment of vacant houses in rural areas of Yunlin county. 	<ol style="list-style-type: none"> 6. Collect Yunlin community issues and find media for the cooperative community to establish a new practice site. 7. Continue to build and deepen the construction of the Wangan Huazhai Caspian Sea School in Penghu. 8. Share library resources. 9. Assign teachers to new practice sites in Taiwan. 10. Develop science experiments in primary school with the theme : Big Hands Holding Small Hands. 11. Develop the Vocational Entrepreneurship Program in senior high school. 12. Promote practical education on Green Energy Technology.
Output Performance / Evaluation Mechanism	<ol style="list-style-type: none"> 1. Professional Service Courses : 52 with a growth of rate 108% 2. Workshops, exhibitions, seminars, and lectures : 36 Sessions 3. Workshops : 6 sessions 4. USR enrollment : 2,370 5. Continued presence in four existing USR practice sites. 6. Call for teachers to enter USR practice sites in Yunlin County where the school is located and 14 USR practice sites all over Taiwan. 	

Management Policy 3

Major Topics on the School's Sustainable Development	Measures for energy management and conservation \ safety and health management \ waste and waste-water management \ environmental sustainability management	
Reasons for Choosing Major Topics	YunTech is committed to the promotion of green energy and green technology. It hopes that while increasing the production efficiency and optimizing the effect of such energy, it can improve the utilization efficiency of green resources and energy and reduce the use and waste of toxic substances. It pays attention to recycling and re-use of resources to reduce pollution and improve environmental quality. Therefore, analyzing the influence, impacts, and risks of technological development on the environment and economic production can help understand how technological innovations and procedural changes can be carried out to solve various problems and promote green technology.	
Special Topics of GRI Standards	302 Energy \ 403 Occupational Safety and Hygiene \ 303 Water \ 306 Waste-water and Waste \ 307 Compliance with Environmental Protection Laws and Regulations	
Policy	According to Strategy 3 of the medium-term plan for school development 2018-2022, the school will leverage educational and R&D resources to solve local, industrial, social, and global problems, cultivate the environmental literacy of teachers and students, promote environmental protection efforts, reduce the environmental impact, enhance the hygiene awareness of teachers and students, of and reduce the hazards caused by campus waste and teaching activities.	
Promises	Implement pollution prevention and reduction policy, promote education about and advocacy on the environment, construct sustainable green campus, be surrounding- and community-friendly, construct a safe and hygienic occupational atmosphere; deepen knowledge on occupational safety and hygiene, reduce occupational hazards and risks, and implement self-management and communication.	
Objectives and Targets	<p>Short-term : Annual waste reduction of 1%, boost green procurement expenditure to more than 36.2 million, and no increase in total electricity consumption.</p> <p>Medium-term : Zero leakage and accidents involving toxic chemicals, treatment of waste-water, comply with discharge standards, and achieve zero major accidents concerning occupational safety and hygiene and a 1% increase in sewage recovery rate.</p> <p>Long term : Build an environment in which people, animals, and plants coexist and prosper and educate citizens on environmental science to detect problems, think independently, solve problems, and take action. (Strategy Three)</p>	
Responsibility and System	<p>External Responsibilities : Air Pollution Prevention Law, Water Pollution Prevention Law, Waste Disposal Law, Measures for the Management of Toxic Chemical Substances, Noise Control Law, Greenhouse Gas Reduction and Management Law.</p> <p>Internal System : ISO 50001</p>	
Impact and Risk Assessment	<ol style="list-style-type: none"> 1. Abnormal climate and rising energy prices affect the costs of the school.(increase in prices of electricity, gas, and natural gas) 2. Air Pollution, water pollution, waste, toxic substances, noise, and other factors affect school image. 3. Random disposal of waste causes pollution of the environment. 	<ol style="list-style-type: none"> 4. Penalized for discharging water not meeting the environmental standards. 5. Occupational Safety and Hygiene Hazard. 6. No related threats occurred from 2016 to 2018 and the existing preventive measures were maintained.

Management Policy 3

Major Topics on the School's Sustainable Development	Measures for energy management and conservation \ safety and health management \ waste and waste-water management \ environmental sustainability management
Resources Invested	<p>1. Environmental protection : 7,636.2 thousand yuan</p> <p>2. Replacement of energy-consuming equipment : about 30.3 million yuan</p> <p>3. Electricity management and control system : about 6.25 million yuan</p> <p>4. Green procurement : about 36.13 million yuan</p> <p>5. Maintenance of waste-water treatment equipment : about 330,000 yuan</p> <p>6. Equipment for fire-fighting, safety, and hygiene protection : about 140,000 yuan</p> <p>7. Education and training on occupational safety and hygiene : about 30,000 yuan</p>
Grievance Mechanism	<p>1. System of Advice on School Affairs.</p> <p>2. Faculty Appeal Review Committee.</p> <p>3. Measures for handling students' appeals.</p>
Specific Strategies / Actions	<p>1. Install waste-water (sewage) treatment equipment and deploy dedicated personnel; maintain the equipment regularly; check the quality of raw waste-water, and discharge water regularly.</p> <p>2. Promote digitization of administrative tasks to reduce paper consumption; recycle used books and bicycles.</p> <p>3. Apply for the operation of toxic chemicals and participate in the joint defense training on toxic chemicals.</p> <p>4. Replace old air conditioners.</p> <p>5. Build solar photovoltaic power generation equipment.</p> <p>6. Give priority to purchasing products with energy-saving labels.</p> <p>7. Perennial training on protection regiment; emergency drilling for earthquake evacuation and compound drilling for disaster prevention and rescue; fire drill.</p> <p>8. Conduct education and training activities on safety and hygiene every semester.</p> <p>9. Inspect experimental sites every academic year.</p> <p>10. Advocate safety and hygiene.</p> <p>11. Implement disaster prevention measures.</p> <p>12. Promote general regulations on dangerous and hazardous sub-stances.</p>

Management Policy 4

Major Topics on the School's Sustainable Development	Academic Ethics and Public Integrity › Employment Environment and Opportunities › Performance of Research and Industry-Academia Cooperation › Teaching Quality and Effectiveness
Reasons for Choosing Major Topics	In order to effectively construct good and suitable teaching quality, the school applies meaningful and intelligent learning strategies for teachers to promote independent learning for students to learn independently and in the industry-academia cooperation side, it roots in the solid foundation based on excellent learning and teaching and having YunTech as a model for universities of science and technology. Our teachers have also demonstrated outstanding research and development capabilities and have made remarkable achievements in the areas of innovation, patents, and industry-academia cooperation. The university has also extended its industry-academia cooperation performance by setting up a General Centre for Industry-Academia Research and 27 PBL Research Centres to serve its stakeholders to bring out changes for both the stakeholders and the school itself. Our school encourages students to cooperate in different fields, solve practical social problems to achieve balanced development in the fields of industry-academia cooperation, research, and service, and finally fulfill the social responsibilities of our university as a science and technology university.
Special Topics of GRI Standards	205 Anti-Corruption
Policy	According to Strategy 2 of the medium-term plan for school development 2018-2022, the school will develop a mechanism that links R&D achievements with new ventures and strategies. It will leverage educational and R&D resources to solve local, industrial, social, and global problems.
Promises	The school promotes research and development programs for industrial innovation in curriculum design with key development features from each department, industry-academia cooperation, etc., and continuously maintains the teaching quality and provides employment opportunities to ensure that its graduates can use what they learned to meet the needs of the industry and get employed as soon as they graduate.
Objectives and Targets	<p>Short-term : Achieve teaching and industry-academia research performance targets.</p> <p>Medium-term : Strengthen enrollment and flexible curriculum planning; establish a high-quality R&D environment; set up inter-department R&D team.</p> <p>Long-term : Based on the School Affairs Development Plan, considering the issues concerning school affairs research and place-making, and adhering to the spirit of connecting studying at school with the industry need, we will evaluate teaching, students, courses and employment, and make plans in a comprehensive way, implementing the goal of not giving up any students to improve the overall teaching quality and enhance the employment environment and opportunities. (Strategies 2 and 3)</p>

Management Policy 4

Major Topics on the School's Sustainable Development	Academic Ethics and Public Integrity \ Employment Environment and Opportunities \ Performance of Research and Industry-Academia Cooperation \ Teaching Quality and Effectiveness	
Promises	The school promotes research and development programs for industrial innovation in curriculum design with key development features from each department, industry-academia cooperation, etc., and continuously maintains the teaching quality and provides employment opportunities to ensure that its graduates can use what they learned to meet the needs of the industry and get employed as soon as they graduate.	
Responsibility and System	<p>External Systems : the national strategic plan: place-making plan.</p> <p>Internal Systems : Award for the Publication of Academic Journal Papers, Key Points on the Flexible Wage System of the Higher Education Sprout Project, Award for Industry-Academia Cooperation, Subsidy for Patent Application, Subsidy for Promoting Patent Activation, Award for 1+4 License, Subsidy for Participation in International Competitions, Subsidy for Innovation and Entrepreneurship, and the like.</p>	
Impact and Risk Assessment	1. Effectively evaluate teaching quality, student learning, protection for teachers' patent, and the effectiveness of industry-academia technology transfer.	2. Confirm academic ethics and ensure no plagiarism.
Resources Invested	1. Higher Education Sprout Sub-Project 5 : Teacher Development, Effective Learning, and School Affairs Research Project: about 37 million yuan	2. Higher Education Sprout Sub-Project 8 : The special program for intelligent application of industry-academia research: 17 million yuan
Grievance Mechanism	1. A system that offers advice on school affairs. 2. Faculty Appeal Review Committee. 3. Measures for handling students' appeals.	
Specific Strategies / Actions	1. Action Plan for "Homogenization of Freshmen's Learning Starting Point" 2. Teachers implementing Rubrics Evaluation Mechanism 3. Set up the Degree Qualification Profile (DQP) 4. Leverage alumni feedback and foster graduates' competitiveness in the workplace 5. Hold the Achievement Exhibition and the School-wide Employment Expo	6. Promote industrial internship among students 7. Implement International Exchange and Cooperation Programs 8. Derivative patent / technology transfer 9. Micro-entrepreneurship for students and teachers or graduates 10. Introduce industry experts for collaborative teaching 11. Organize educational lectures on academic ethics
Output Performance / Evaluation Mechanism	1. Interdisciplinary courses offered : 276, with a growth rate of 43.98% 2. Number of innovation and entrepreneurship courses set up : 51 with a growth rate of 20.07% 3. Student employment rate : 95.18%	4. The number of startups : 6 5. The number of academic papers published : 480 6. Number/amount of collaboration between industry, government, and academy : 822 pieces/1,270.56 million yuan 7. Corruption cases : 0

Management Policy 5

Major Topics on the School's Sustainable Development	Human Resource Management and Supplier Management
Reasons for Choosing Major Topics	To establish a fair and high-quality personnel environment, aside from improving the management system, motivating faculty and setting up a welfare policy, we should also construct a harmonious working environment, smooth communication channels, build grievance channels, and seek feedback from employees. The school's employment system of the school upholds the principles of fairness and openness. As far as teachers are concerned, the third-level Teacher Evaluation Committee has set up clear measures to complete the minutes of each meeting; the recruitment of the faculty shall be carried out in accordance with the legal procedures. In addition, the school has formulated relevant regulations and established effective communication with stakeholders and suppliers to create a harmonious atmosphere on campus to reduce the hazards caused by its environmental facilities and teaching activities on campus.
Special Topics of GRI Standards	401 Employment Relationship \ 405 Employee Diversification and Equal Opportunities \ 414 Supplier Social Assessment
Policy	According to Strategy 1 of the medium-term plan for school development 2018-2022, the school builds a learning environment that is adaptable to the needs of students and foster talents. It will construct a mechanism which links R&D achievements with new ventures.
Promises	Through actual on-site interviews with stakeholders and suppliers, recommendations can be made to change the development direction and we can set improvement targets accordingly. The school carries out disaster and risk management, ensure safe and hygienic occupational atmosphere, deepen knowledge on occupational safety and hygiene, reduce the risks of workplace hazards, and implement independent management and communication with the belief that prevention is better than treatment. Its priority is to cultivate and retain talents, enhance the centripetal force of the faculty, and implement education, training, and further study for faculty members. Relevant norms for supplier selection, evaluation, and assessment are all set up in accordance with the government procurement law and are in line with the school's operational procedures, which are followed by each unit to ensure the effectiveness and appropriateness of the operational activities.
Objectives and Targets	<p>Short-term : Reduce student-teacher ratio, maintain the ratio between green procurement and preferential procurement.</p> <p>Medium-term : Promote diversification of teachers.</p> <p>Long-term : Build a high-quality environment to attract, develop, and retain talents. (strategy 1)</p>

Management Policy 5

Major Topics on the School's Sustainable Development	Human Resource Management and Supplier Management
Responsibility and System	<p>External System : Occupational Safety and Hygiene Law, Labor Standards Law, Labor Inspection Law, Government Procurement Law.</p> <p>Internal System : Faculty appointment, dismissal, and salary increase; personnel management; evaluation, rewards, and punishment; training and further study; key points of the procurement operation.</p>
Impact and Risk Assessment	<p>1. Effectively assess the three main sources of risk, including forced labor, workplace safety, and corruption.</p> <p>2. Requiring suppliers to sign relevant terms concerning sustainability issues and writing them into a formal contract, carry out irregular on-site inspections and offer management guidance to high-risk suppliers to urge suppliers to follow corporate ethics and fulfill corporate social responsibilities.</p>
Resources Invested	<p>1. Payroll cost : about 953.63 million yuan</p> <p>2. Green procurement : about 36.13 million yuan</p> <p>3. Equipment for fire-fighting, safety, and health protection : about 140,000 yuan</p> <p>4. Education and training on occupational safety and hygiene : about 30,000 yuan</p>
Grievance Mechanism	<p>1. System of Advice on School Affairs. 2. Faculty Appeal Review Committee.</p> <p>3. Sexual harassment complaint line and mailbox : 05-5342601#2555; gender@YunTech. edu.tw</p>
Specific Strategies / Actions	<p>1. Share inter-institutional library resources</p> <p>2. Release the annual accountability report on university operation</p> <p>3. Set up the Degree Qualification Profile (DQP)</p> <p>4. Leverage alumni feedback and foster graduates' competitiveness in the workplace</p> <p>5. Create a health care program</p> <p>6. Extend the services provided by the Environmental Incident Response Consultation Centre</p> <p>7. Implement preferential procurement and green procurement</p>
Output Performance / Evaluation Mechanism	<p>1. Full-time faculty : 411, up 4.24%</p> <p>2. Faculty appeals : 3</p> <p>3. Accountability report : 1</p> <p>4. Discrimination : 0</p> <p>5. Preferential procurement ratio : 14.95%</p> <p>6. Green procurement ratio : 99.79%</p>

3-4 / Academic Ethics and Clean Governance

YunTech has formulated the Code of Ethics for YunTech Teachers in accordance with the University Law and the Teachers Law of Taiwan to explore new knowledge, improve the academic levels, spread knowledge, cultivate talents, develop high-quality organizational culture, and serve the society.

Teaching Ethics

- ⦿ Teachers shall follow the teaching schedule requirements, avoiding being absent, being late for class, early class dismissal, and giving a lesson without permission. Teachers shall inform students in advance and the affiliated teaching administrative units of the change in the time of classes and make up missed class sessions as soon as possible.
- ⦿ Teachers shall adequately prepare the teaching contents before class, update course outlines, and improve textbooks, avoiding affecting the objectivity and integrity of the courses due to subjective positions. Teachers should also adopt the two-way communication approach to discuss students' learning interests and achievements in order to protect their rights and learning interests.
- ⦿ Teachers shall constantly extend their knowledge and participate in professional activities. To improve their teaching knowledge and abilities, teachers are advised to attach much importance to teaching evaluation and evaluation results so as to improve teaching objectives and methods.
- ⦿ Teachers shall assess students' grades fairly, respect their academic freedom, and avoid affecting their independent consciousness. To ensure teaching quality, teachers also shall pay attention to the feedback of students learning, take the initiative in spotting their learning bottlenecks and allot time for instruction or counseling after class.

⦿ Teachers shall set an example for students and contribute to the well-balanced development of students' healthy personalities. To carry out the holistic education, teachers shall give practical guidance to students on their psychology, ethics, life, words, and deeds, etc. They should teach students based on their aptitude and handle their problems impartially. Teachers can seek help from experts, scholars, and guidance and counseling units if necessary.

Academic Ethics

- ⦿ Teachers shall devote themselves to pursuing academic achievements and improving academic levels. Teachers shall stick to personal wills and refuse the temptation of personal interests to safeguard academic freedom. Teachers shall make their research results known to the public, whether through speech or writing, based on integrity and conscience and take the responsibility of them.
- ⦿ Teachers shall deal with research data and results with a rigorous work attitude. Teachers are forbidden to fabricate, alter, and improperly refer to others' data, plagiarize, or presumptuously engage in academic activities under the name of others. To show respect to others' intellectual property and personality rights, teachers shall provide the sources of works, results or data cited, and acquire legal consent or authorization in advance if necessary.
- ⦿ Teachers shall take objective and impartial attitudes toward academic review when they participate in or accept it. Teachers shall not have any contact with people concerned or those who represent their interests. They shall fulfill the confidentiality obligations imposed by laws and regulations and take the initiative in avoiding any situation that would put them in a conflict of interest.

- Teachers shall rank the authors of a publication based on their personal contributions. Teachers shall not take advantage of power, opportunities, or means from jobs and exaggerate, belittle, or ignore authors' credit and performance. To maintain consistency and integrity, teachers shall avoid deliberate cutting, redundant publication, and hiding all or part of research results.

- Teachers who plan to recruit project assistants and graduate students receiving scholarships are required to acquire a certificate of six-hour research ethics study or credit certificate (project leaders are responsible for the preparation of the certificate for future reference). Relevant project leaders shall submit the certificate to the Ministry of Science and Technology when applying for the project to comply with research ethics.

Ethics of Human Relationships

- Teachers shall strive to maintain a healthy relationship with school staff and students, respecting the power and functions of school staff and the independent personality of students. They shall establish interpersonal relationships characteristic of mutual respect and mutual assistance while frivolity, abuse, fighting, malicious attacks, or other improper words and deeds are not permitted.

- Teachers shall respect students' reasonable rights and interests, protect their privacy, offer help in solving the difficulties faced by students and colleagues, participate in university activities, and interact and communicate with students and staff. To summarize, teachers shall work on common growth and development of students and school staff and foster an outstanding team culture in a concerted effort.

- Teachers shall work tirelessly to help our university eliminate improper political, economic, and other interference factors; they shall never make profits from public resources by taking the advantage of students and administrative staff, and decline politely any offer of gifts or hospitality that does not conform to the code of ethics.

Social Ethics

- Apart from teaching and research, teachers shall participate in activities outside the campus and serve the society with the help of their expertise to promote knowledge transmission.

- To promote academic exchanges and social services, teachers shall avoid improper private interests when participating in our university's extension education and cooperative education plans.

- Teachers shall ask our university for permission in advance before carrying out industry-academia cooperation instead of exploiting university resources for personal work.

- Teachers shall verify expenses incurred by implementing industry-academia cooperation plans and get reimbursed in accordance with laws and regulations, YunTech's accounting system, and the contracts signed between YunTech and associated agencies.

- Teachers who mean to give part-time lessons or hold part-time positions concurrently shall submit written reports to YunTech for approval in advance and perform their due obligations to our university as expected.

To deal with cases concerning violation of academic ethics, YunTech has set up Academic Ethics Review Committee, and has formulated objective and fair review procedures to safeguard the reputation of YunTech and the rights of the reported. The Academic Ethics Review Committee applies to full-time teachers and researchers, project teachers paid by the university fund, as well as rare scientific and technological personnel and part-time teachers.

The research and industry-academia cooperation programs of YunTech have produced favorable outcomes. As the industry-academia research is gaining momentum, teachers and participants are required to adhere to the principle of integrity and the regulations of research ethics. When our teachers apply for research programs to the Ministry of Science and Technology, project leaders have to upload the ethics certificate to the Ministry for future reference. The candidates for project assistants should submit a certificate that shows they have studied ethics for at six hours. In 2018, a total of 361 employed project assistants were certified, which means 100% of them are qualified in this aspect. Moreover, YunTech invites the Academic Ethics Committees of the National Cheng Kung University and National Chung Cheng University or at least one of them to assist in organizing the ethics workshop each semester.

Anti-Corruption Policies

On October 31st, 2003, the United Nations Convention against Corruption (UNCAC) was approved at the General Assembly of the United Nations and came into effect since December 14, 2005. Taiwan has strived to implement anti-corruption regulations and policies of the UNCAC to integrate with the international community. The Ministry of Education has formulated ethical codes of clean governance for civil servants and teachers particularly to ensure that

its affiliated schools fulfill their duties impartially, work with honesty, exercise administration strictly in accordance with the law, and improve the image of the Taiwan's government. Civil servants and teachers shall perform their duties in accordance with the law with public interests at the core and never make use of power, methods, or opportunities that their positions provide to seek unjust benefits for themselves or a third party.

Civil Service Law requires the duty of loyalty and confidentiality and prohibits civil servants from abusing power, doing business or part-time jobs, soliciting support, accepting any offer of gifts or hospitality, and seeking mutual benefits with people concerned, and avoid conflict-of-interest situations.

The Personnel Office of YunTech provides information on personnel regulations and releases personnel e-newspaper monthly on laws and government ethics on its website. A special column for the ethics of a clean government has been set up to provide a reference for the faculty (<https://aex.yuntech.edu.tw/>). YunTech has not seen corruption since 2018.



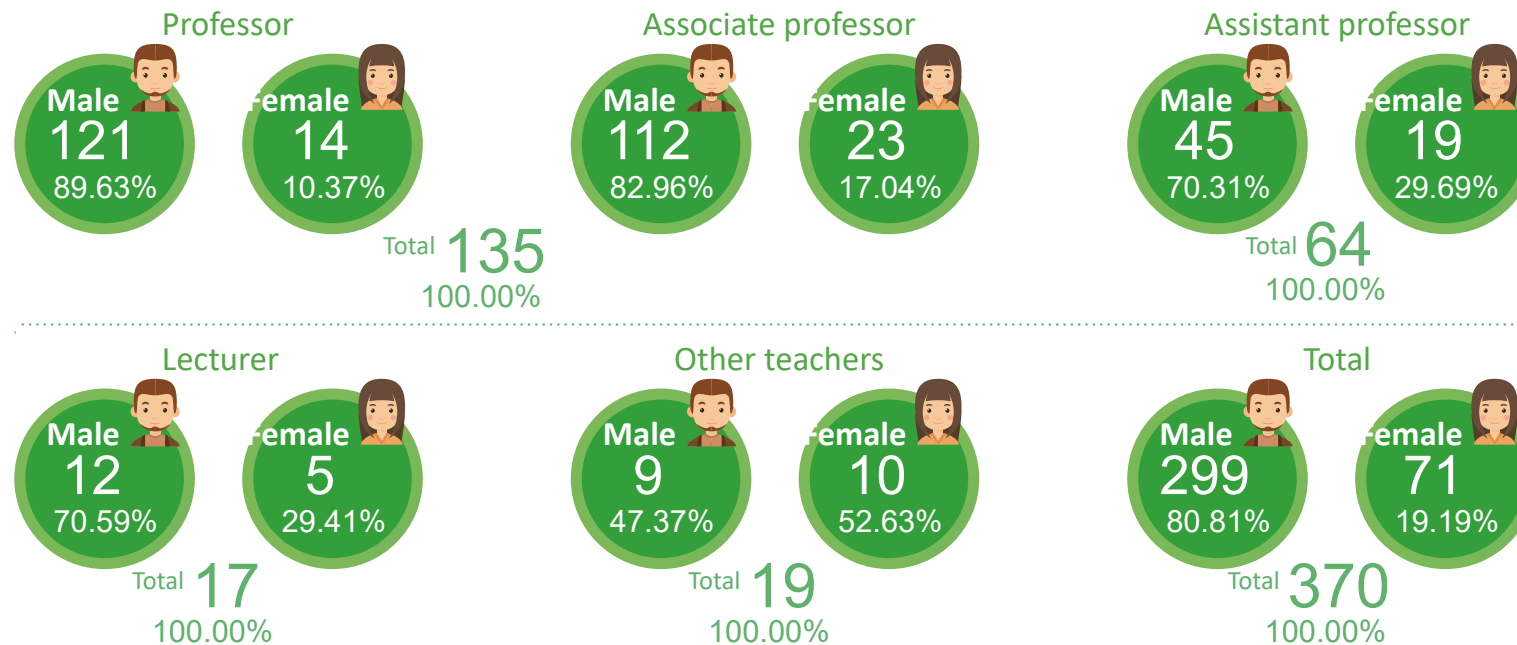
3-5 / The Development and Cultivation of Human Resources

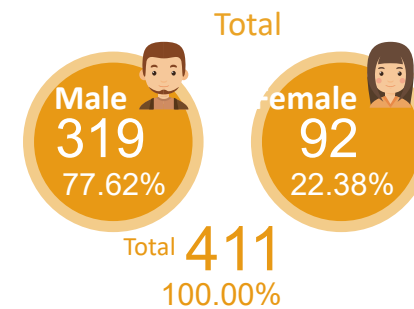
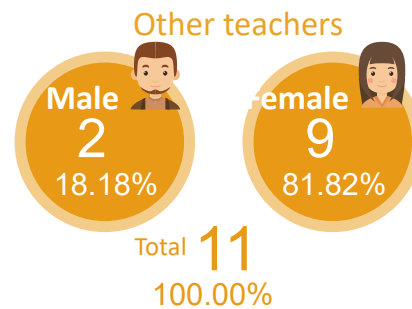
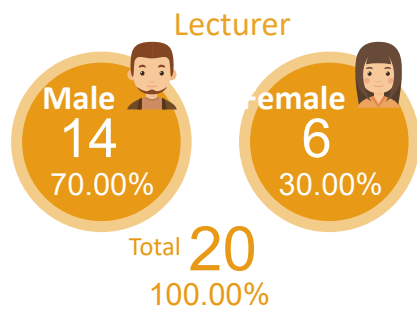
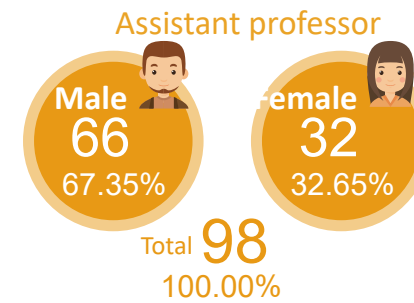
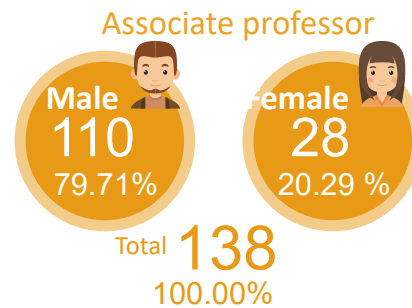
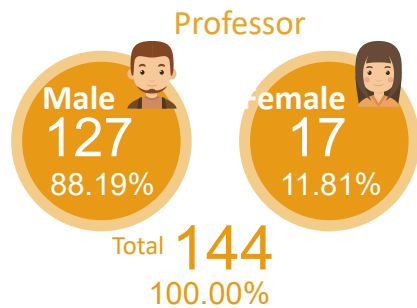
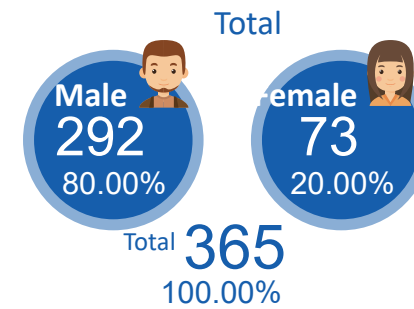
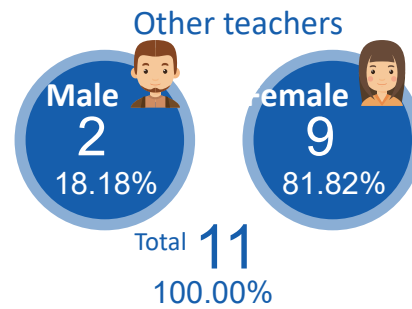
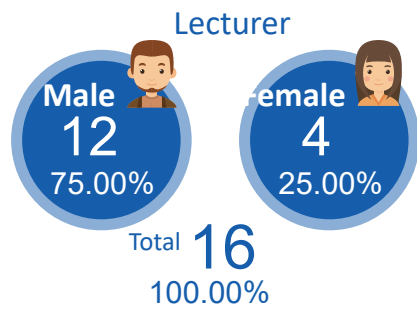
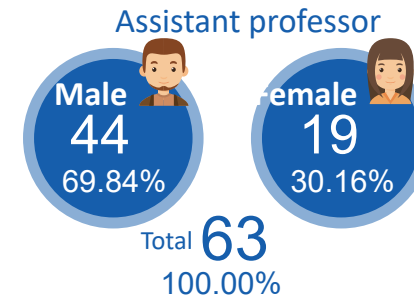
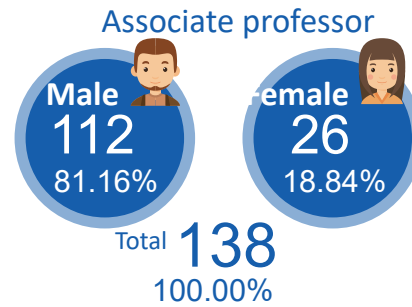
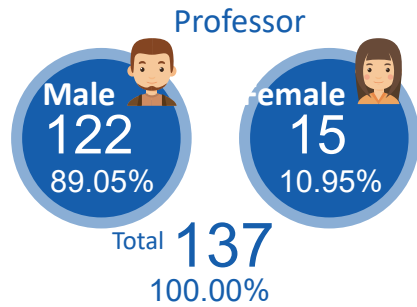
Manpower Allocation

In order to sharpen the overall competitiveness, meet the university development requirements and improve the administrative management system, all units of YunTech have been set up and operate in accordance with organizational rules and regulations. In addition, a fully functional personnel system and regulations have been established to recruit teachers with a high sense of morality and profound knowledge and administrative staff with service consciousness. On the basis of the equality of human rights, YunTech's talent recruitment policy shows no discrimination on the grounds of gender, race, age, political orientation, marriage, and family status, making the staff more diversified. The number of faculty who register in the database of technical colleges before October 15 annually is set for reference; YunTech had more full-time teachers than before in the academic year of 107 and the student-teacher ratio lowered.

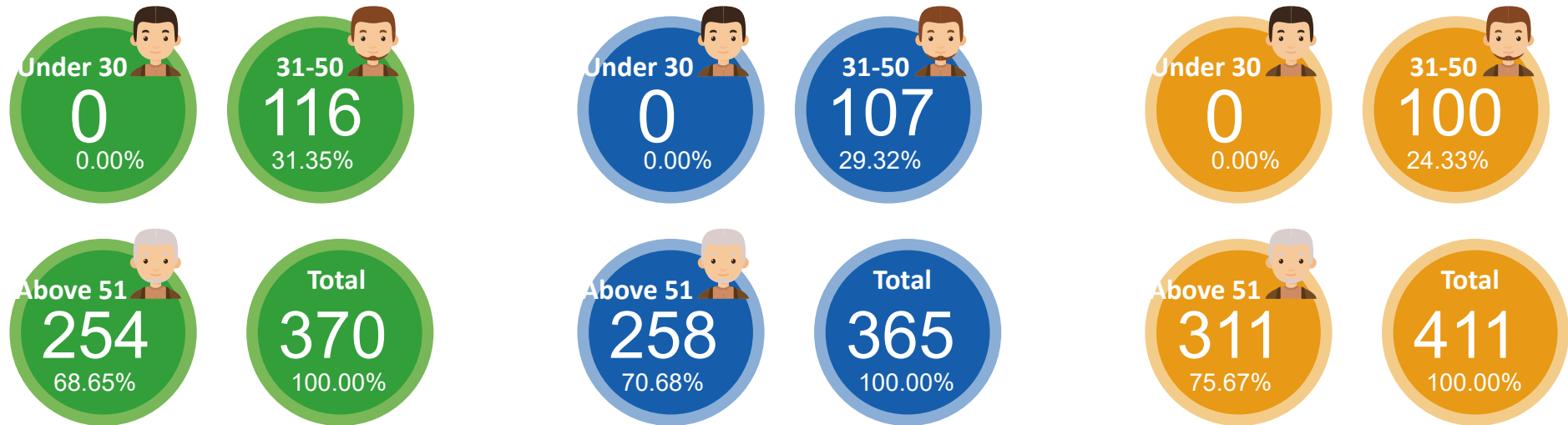
Full-time teachers / 105 ● 106 ● 107 ●

The distribution of full-time teachers from the academic year of 105 to 107

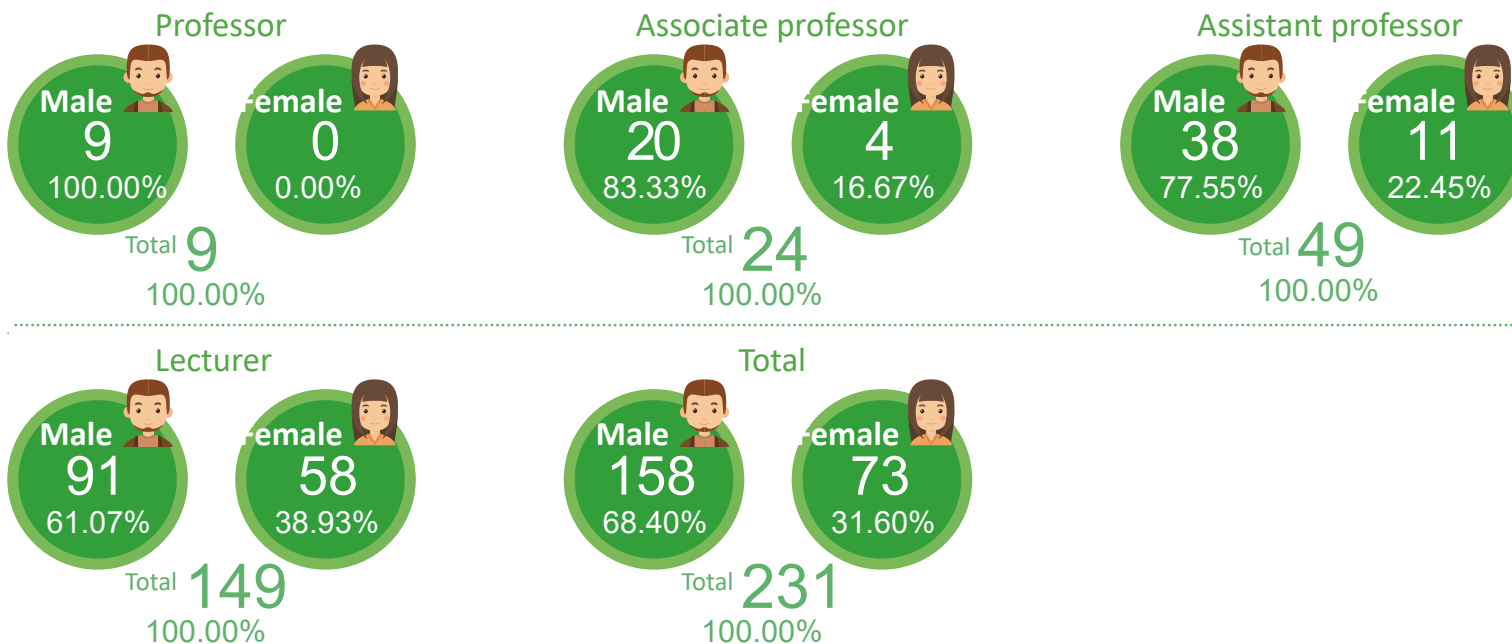


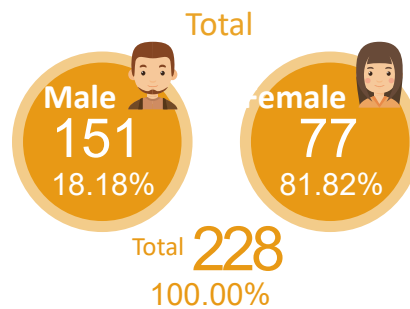
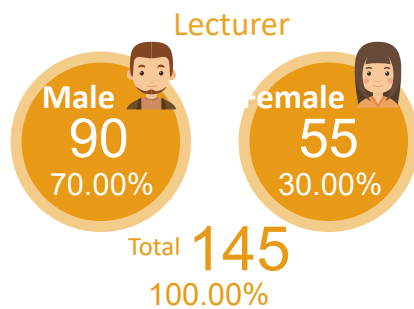
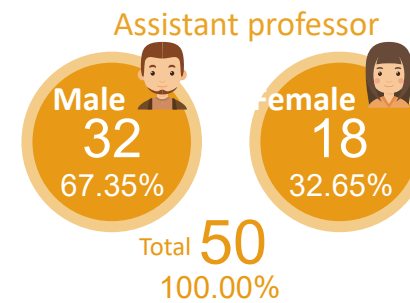
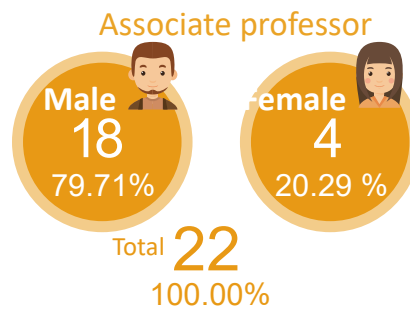
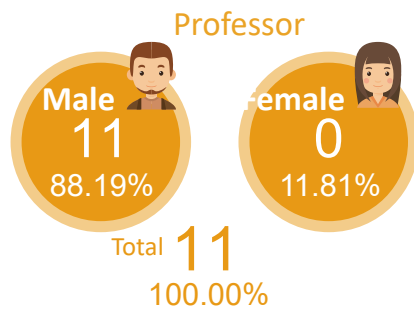
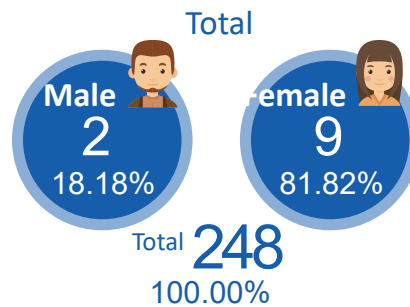
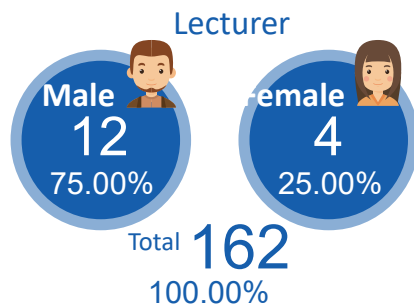
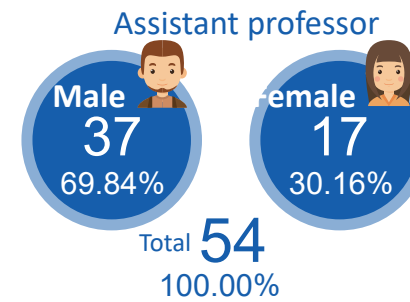
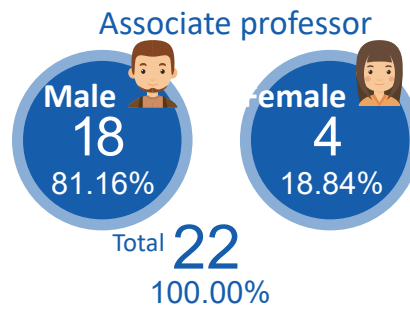
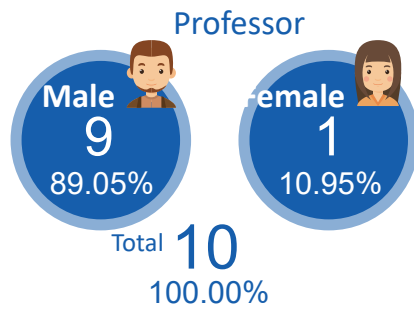


The age distributions of full-time teachers from the academic year of 105 to 107 ● ● ●

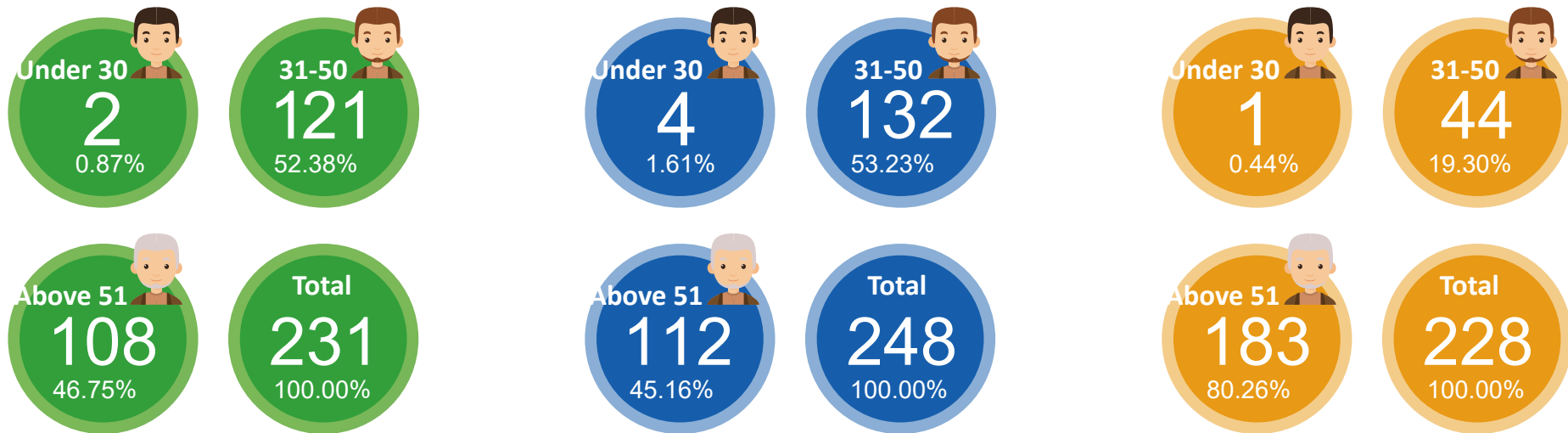


The distribution of part-time teachers from the academic year of 105 to 107 ● ● ●

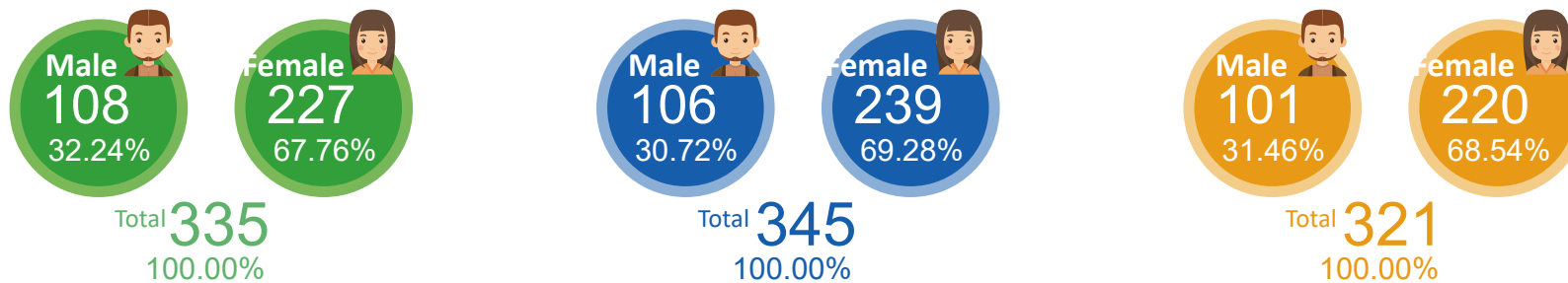




The age distributions of part-time teachers from the academic year of 105 to 107 ● 105 ● 106 ● 107

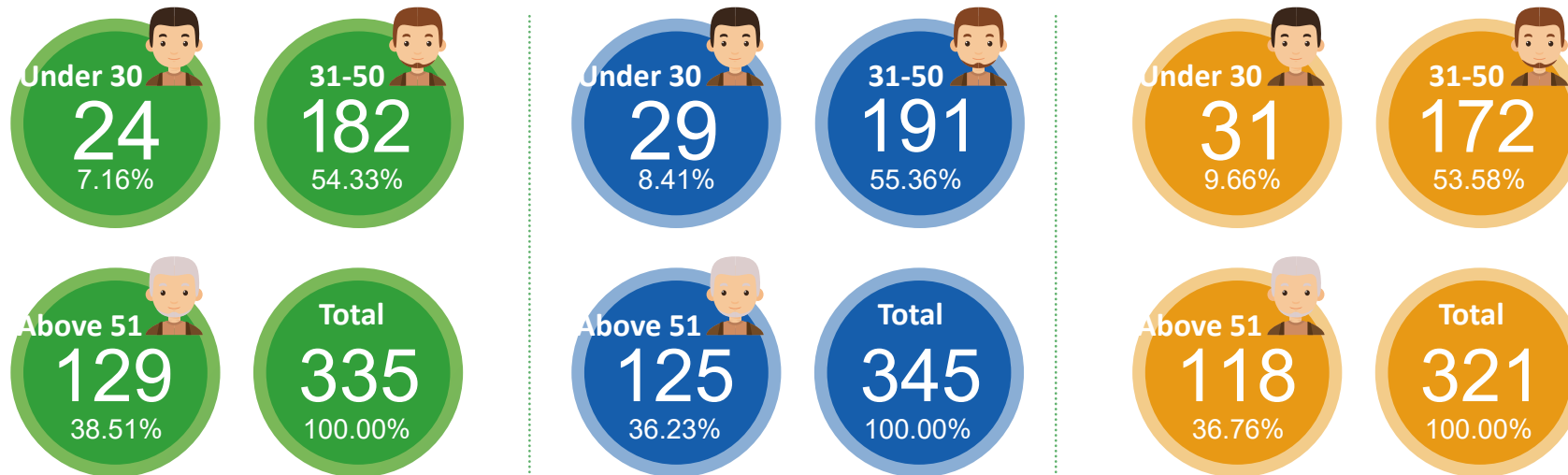


The gender distribution of staff from the academic year of 105 to 107 ● 105 ● 106 ● 107



The age distribution of staff from the academic year of 105 to 107

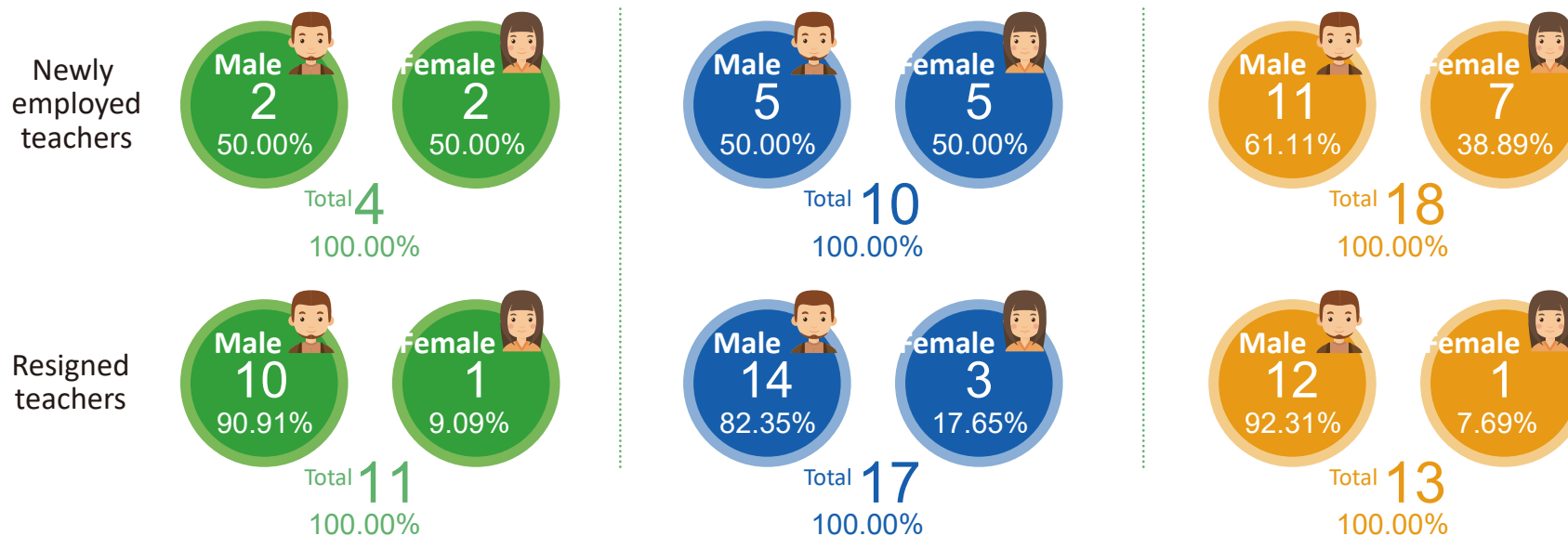
105 ● 106 ● 107 ●



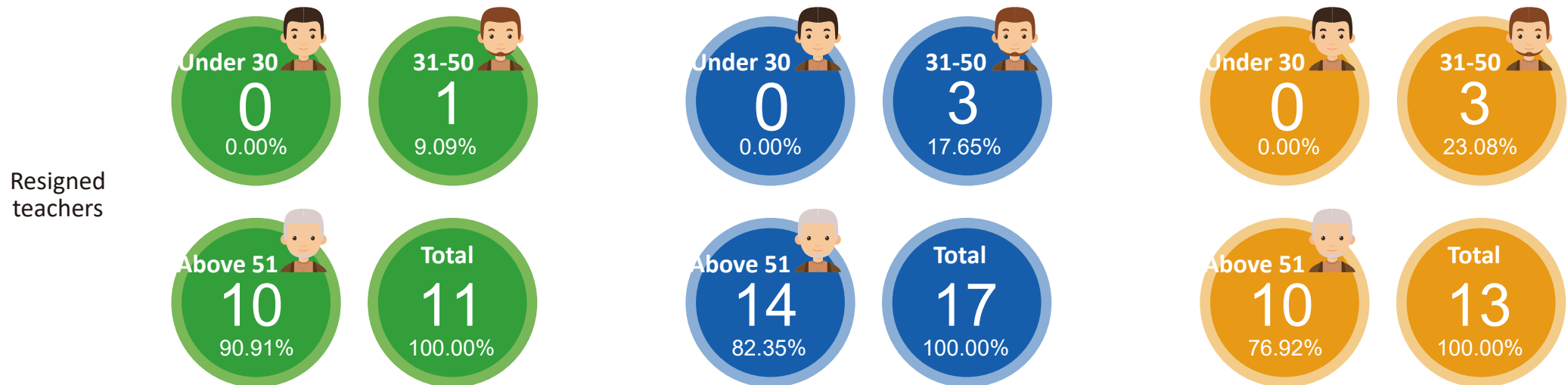
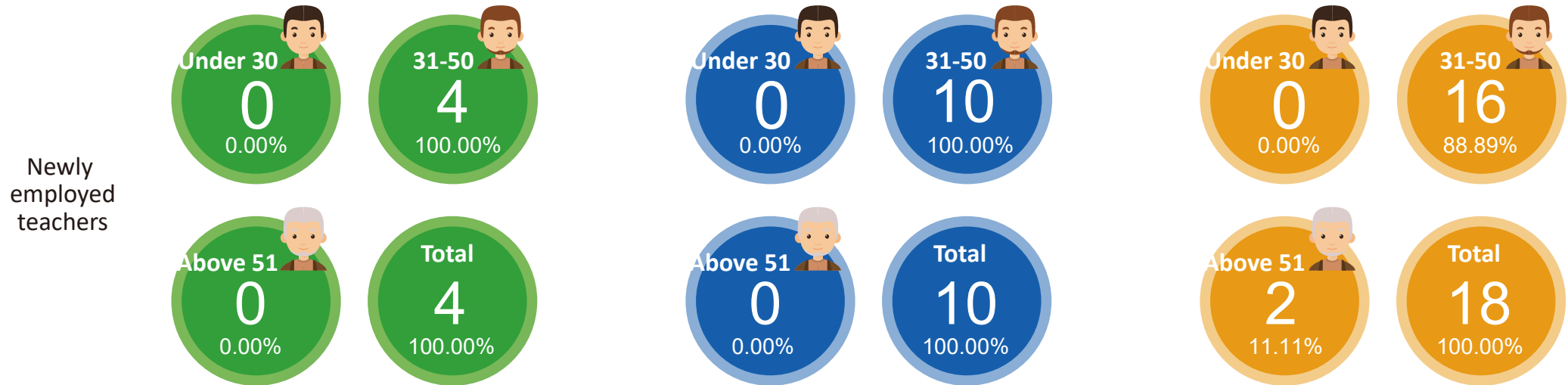
Newly employed and resigned workers /

The age distribution of staff from the academic year of 105 to 107

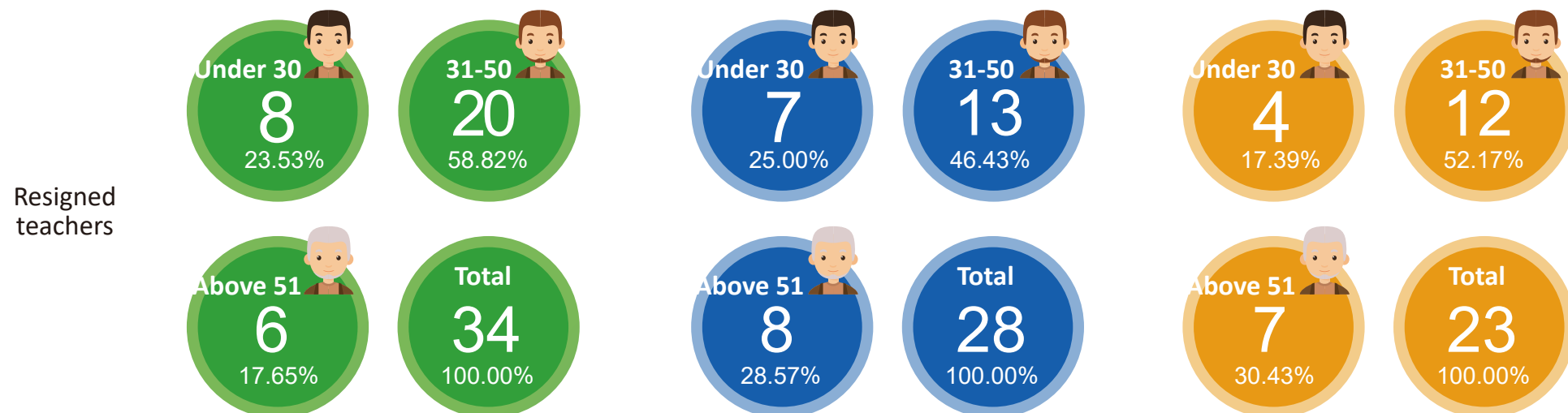
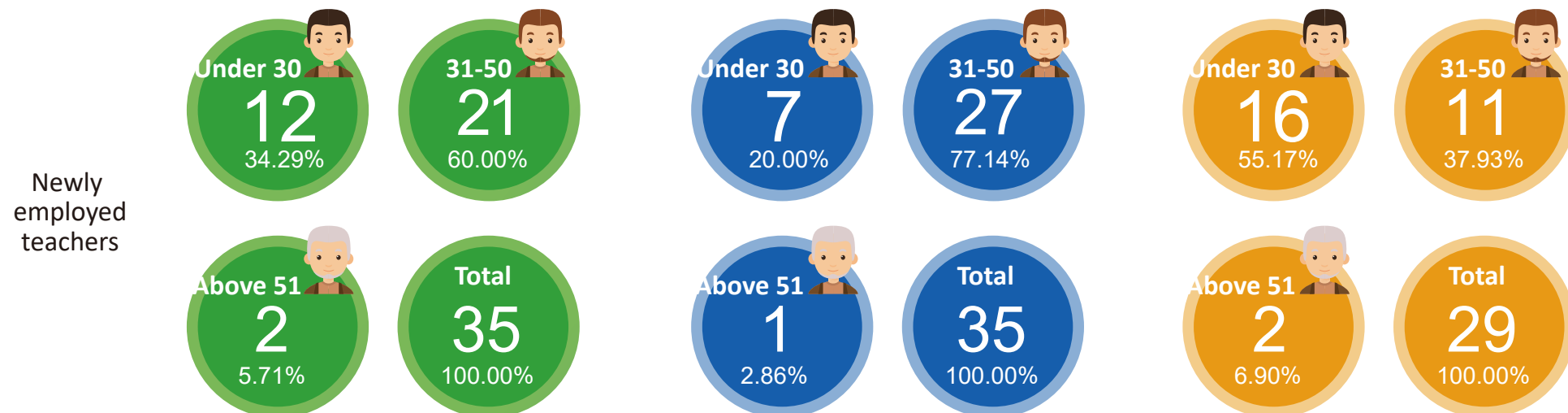
105 ● 106 ● 107 ●



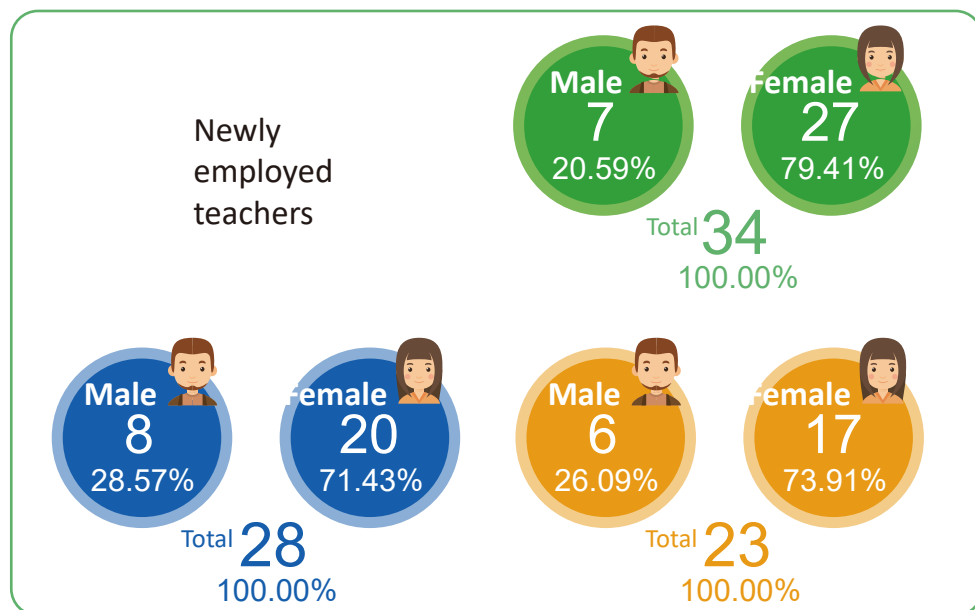
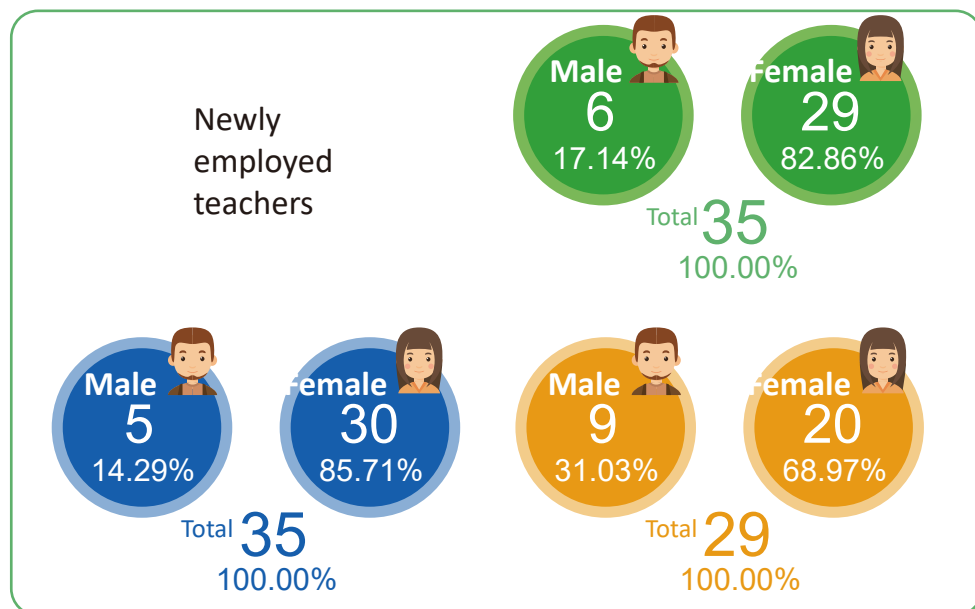
The age distributions of newly employed and resigned teachers from the academic year of 105 to 107 105 106 107



The age distributions of newly employed and resigned staff from the academic year of 105 to 107 105 ● 106 ● 107 ●



The gender distribution of staff from the academic year of 105 to 107



Human resources cultivation - Teachers

Open for observation courses : YunTech has organized 59 open for observation class sessions with 198 teachers participating in them.

The objective of the open for observation class system is to improve the teaching quality by inviting those who have been acknowledged as outstanding or excellent teachers to give open for observation class sessions to set teaching models. In this way, it is expected to make full use of the existing teaching resources of YunTech and improve its teaching quality and learning results.

Teaching knowledge and ability improvement

A total of 16 seminars on improving the teaching knowledge and ability have been held.

In order to promote teachers' growth in knowledge and abilities, YunTech actively encourages them to participate in seminars and formulates the key points to encourage teachers' professional development to promote their knowledge and learning. In this way, it hopes to improve the teaching quality. These seminars are mainly organized in form of lectures, which bear on innovation, entrepreneurship, and design thinking; they are held to trigger the thinking on the education of YunTech, break from the traditional teaching mode and give students interdisciplinary thinking and learning.

Teachers' community BOT

In order to promote teachers' growth in professional competence and knowledge and encourage them to form communities by themselves, YunTech adopts the strategy of co-learning BOT. YunTech leads in school-level co-learning activities to promote communication and break the ice among teaching staff, and encourages teachers to select

a leader and operate on their own when they get familiar with each other. The co-learning activities are carried out in each academic year. In 2018, 16 school-level teachers' communities have been set up with 123 participants, accounting for 29.93% of YunTech teaching staff. Within these communities, teachers make the acquaintance and communicate with each other.

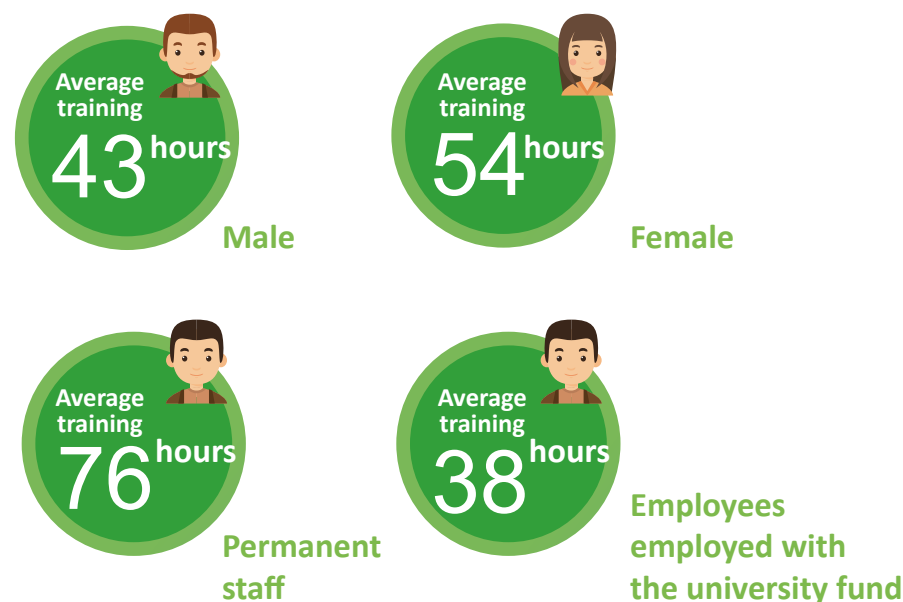
Reviewing methods for the appointment and promotion of full-time teachers

To diversify YunTech teaching faculty and give full play to their strengths rather than getting promotion only through their academic works, YunTech revised the reviewing methods for the appointment and promotion of full-time teachers under the principle of equality. Artistic achievements can also be submitted for examination; the number of examiners should be the same with that for the examination of specialized works, sports achievements, and technical reports to help teachers get promotion in different ways. In 2008, 15 teachers applied for promotion, 14 of whom got promoted for their academic research achievements, and one for technical reports. From 2016 to 2018, a total of 54 teachers applied for promotions, eight of which succeeded in promotion not because of their academic research achievements, accounting for 14.81% of the applicants.

Human Resources Cultivation - Administrative Staff

YunTech arranges education training courses for administrative staff each year, including courses of basic workplace skills, professional growth, core skills, career development, management skills, policies, regulations, democratic governance, etc. Our administrative personnel avail of the training for over 33 hours each academic year. The education training courses in 2018 are as follows :

Based on the system of professional work division, our training for teachers has adopted a diverse learning mode. It is carried out by each department; the staff can participate not only in all kinds of physical courses but in online courses voluntarily. Teachers that each department has employed all have doctoral degrees, and profound academic attainments; they dedicate to teaching and research. The statistics were collected from administrative personnel (including civil servants and staff paid with the university fund) and the data on the lifelong learning of civil servants were obtained from a website that announced education training hours in 2018 (excluding those on leave the position temporarily without being paid). In addition, [education training was organized for 29 times by the Personnel Office in 2018 with 1,881 participants / a time.](#)



3-6 / Staff Benefits and Complaints

Academic year 106 (visualization)



Staff Benefits

YunTech employees are composed of teachers, civil servants, teaching assistants, military training instructors, rare science and technology personnel, resident police officers, technicians and staff working on external school affairs funds and special projects, etc. The salaries of YunTech's regular staff are paid in accordance with the law, while non-regular employees receive remuneration, according to the complexity of their work, the degree of responsibility given to them, and the qualifications required for the job. Yun Tech as an employer offers higher salary to its employees than the national legal minimum wage subject to the following factors: specialty, performance, contribution and team spirit, and raise the relevant expenses such as labor health insurance premiums and retirement benefits in accordance with the regulations.

The university continues to provide remuneration to its staff in accordance with the current standards for the treatment of all types of personnel, which is in compliance with the statutory minimum wage requirements. Currently, 98.4% of the staff are paid more than the minimum wage, 1.6% of the staff receive minimum wage, the

minimum wage of its staff is 1:1 to Taiwan's minimum wage. With reference to the price index, economic growth, and salary level of private enterprises, the university adjusts the salary system of its staff, and ensures that each staff is paid enough to at least meet or even exceed basic living conditions.

Non-discrimination

The university adheres to the provisions of Article 5 of Taiwan's Employment Services Act that states: "in order to ensure equality of employment opportunities for nationals, employers shall not discriminate against employees on the grounds of race, class, language, thought, religion, political affiliation, place of origin, place of birth, sex, gender, age, marital status, physical appearance, physical and mental disability, blood type or previous union membership. If any other law has express provisions, such provisions shall prevail ". The school has always attached great importance to equal rights in the workplace, and to ensure that this is observed, a non-discriminatory personnel policy was established.

- ⦿ Job postings shall not contain any form of discrimination, directly or indirectly, against religion, sex, age, etc.
- ⦿ The pay system applies to all persons irrespective of sex, religion, age, etc. New employees shall be given fair remuneration in accordance with the university's pay scale.
- ⦿ All employees of the university shall enjoy equal pay, job promotion, training opportunities, and employment security.
- ⦿ All rights and benefits shall be equally granted to all employees.

Freedom of Association

The University recognizes trade unions and labour rights and allows labour conferences in accordance with the Labour Standards Act and the rules for the implementation of labour conferences, which are held with the aim of harmonizing labour relations, promoting labour cooperation and improving work efficiency. Its basic spirit is to encourage voluntary consultation and cooperation between employers and employees, to promote effective communication, reduce conflicts, and build consensus, which enhances sharing of wisdom, enriches employee potentials, and encourages both sides to work towards joint implementation of the resolution.

Staff Complaints

To protect the rights of all staff, YunTech has set-up a grievance committee and formulated personnel rules and regulations in accordance with Taiwan's labor laws to provide employees with appeal channels responsible for handling various complaints and concerns.

Appeal Channel for Teachers

YunTech values the protection of the rights and interests of its teachers to promote harmony in the campus and give full play to its educational functions. The Faculty Complaints Committee has been established in accordance with Article 22 of the University Law. Its evaluation criteria and member characteristics consisting of 10 full-time teachers, 2 administrative staff, 1 legal professional, 1 educational scholar, and 1 representative of the local teachers' organization or branch, are based on Article 12 of the organizational rules of the University. The provisions of the said article indicate that the number of teachers not holding administrative positions shall not

be less than two-thirds of the total number of members, and members of either sex shall account for more than one third of the total number of members. Moreover, the president of the committee shall be elected by the members from among themselves and will be responsible for handling the deliberation of appeal cases of teachers in the university.

Any teacher of the university whose rights and interests have been violated may lodge a complaint, which shall be evaluated by the Teacher Appeal Review Committee. In the academic year 106, the number of teachers' complaint was 3; all of which were properly evaluated by the Teacher Appeal Review Committee but had been rejected.

Appeal Channel for Workers

In accordance with the law for the protection of public servants, YunTech employees, other than teachers, who have been subjected under unfair management, poor working conditions, etc. and whose rights and interests have been violated may file a complaint, and may re-appeal when rejected, in accordance with the law. The evaluation of appeal cases shall be conducted by the Reward and Punishment Committee of the university, and the evaluation of the re-appeal case shall be reviewed and decided by the Committee for the Protection and Training of Public Servants.

In order to protect the rights and interests of its staff and workers, the university established the Staff Appeal Review Committee of YunTech in accordance with the law for the protection of public servants and the provisions of Article 12-2 of the organizational rules of the university. From this point on, the term "staff" refers to any regular

employee and non-employee of the university including those employed at the rare science and technology and the University Fund, the resident police, and skilled workers.

The Staff Appeal Review Committee who shall be responsible for handling staff complaints shall have nine members. They shall have gender consciousness and shall be composed of either sex accounting for more than one third of the total number of members. A written complaint shall be filed to the committee within 30 days after the occurrence of the violation by the staff whose rights and interests had been infringed.



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3-7 / Sustainability and Social Responsibility Committee

For an efficient sustainability and social responsibility management, and to shape a sustainable culture, YunTech integrates the spirit of sustainability into education, research and development, operations, and social services, and enhances the university's overall recognition and implementation of United Nation's concept of sustainable development. Further, the Sustainability and Social Responsibility Committee was established. Its members meet once a year but may hold ad hoc meetings whenever necessary, and reports directly to the university's highest governing body.

The Sustainability and Social Responsibility Committee is convened by the president and is comprised of :

Ex-officio members : president, vice-president, president secretary, academic affairs officer, student affairs officer, general affairs officer, research and development officer, international affairs officer, director of the Institutional Research and Planning Center, director of the Research Centre for Sustainable Development and Social Practice, director of the Centre for Environmental Safety and Technology, director of the Centre for Research on Water, Land and Resources and Disaster Prevention, director of the Industry, Education, General Education, director of the Centre for Teaching Excellence, and director of the Centre for Counseling and Consultation.

Election Committee members : two staff representatives, one teacher representative from each college and two student representatives.

Advisory Committee members : two to four experts and scholars from the university in the field of sustainable development who are invited to attend the meetings when necessary.

The responsibilities of the committee include :

- ◉ To discuss, supervise and review the formulation and implementation of the school's sustainability and social responsibility policy.
- ◉ To review and archive the school's annual report.
- ◉ Other matters relating to sustainable development and social responsibility.

The committee may set up relevant working groups, with the director of the School Affairs Development Center as the Executive Director, a secretary and an officer, who shall be the head and the staff of the School Affairs Planning Team of the School Affairs Development Center respectively. Inter-agency integration shall be ensured when discussing issues related to governance, environment, economy, society, creating annual reports, and formulating and implementing policies that promote sustainability and social responsibility. The convener of the working group mentioned in the preceding paragraph shall be a member of the committee and appointed by the president.




04 /

School Performance

Major issues of this chapter

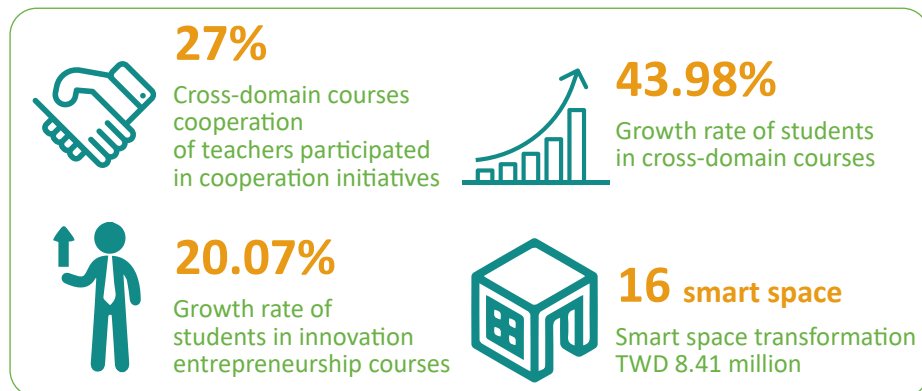
- Teaching Quality and Effectiveness
- Employment Environment and Opportunity
- Performance of Research and Industry-Academia Cooperation



- 
- Among the top 101-200 (4th in Taiwan) universities in the Times Higher Education "World University Impact 2019".
 - Ranked 97th among the top 100 universities in Shanghai Soft Science in 2018, with only three universities in science and technology from Taiwan were included.
 - Awarded first place in "stability rate" by the Ministry of Education.
 - One of the seven departments of the Faculty of Engineering acquired IEET International Certification in Engineering and Science Education.
 - The College of Management obtained the Association to Advance Collegiate Schools of Business (AACSB) International Certification and AACSB Accreditation of Chinese Collegiate School of Business Certification.
 - Obtained the "Outstanding Financial Award", "Outstanding Academic Rights Award", and first prize in the National Competition of Students Union of Colleges and Universities.
 - The Incubation Center for Industry-Academia Collaboration and Intellectual Property was awarded with the "Outstanding Innovation and Development Organization" by the Small and Medium Enterprise Administration of the Ministry of Economic Affairs in 2018.
 - The Incubation Center was awarded with the "Small and Medium Enterprises Outstanding Achievement Award" and "Innovative Institution Award: Local Creation Category" by the Ministry of Economic Affairs.
 - Founded the Innovation Incubation Alliance, Taiwan Intelligent Identification Industry Alliance, and Chemical Advanced Materials Industry Settlement.

- Awarded with the "National Outstanding Unit of Industry-Academia Cooperation" by the Chinese Academy of Engineers; gained a total of 12 awards.
- Participated 10 international competitions and contests, which are Moscow International Salon of Inventions, Taiwan Innovation and Technology Expo, Hong Kong International Invention and Design Competition (IIDC), Seoul International Invention Fair (SIIF) etc.; Yuntech won 33 gold medals, 29 silver medals, 6 bronze medals, and 11 special awards, which are 79 in total.
- German Red Dot Design Concept ranked 7th in the Asia-Pacific region.
- Incubation Center for Industry-Academia Collaboration and Intellectual Property won the "2018 Excellent Incubation Award".
- Awarded with the "Life Education Characteristic School Award".

4-1 / Innovative Teaching Performance

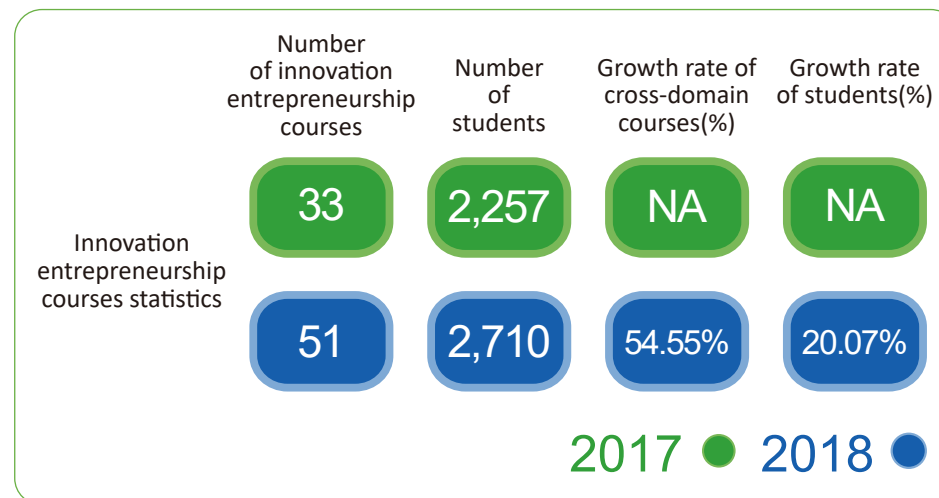
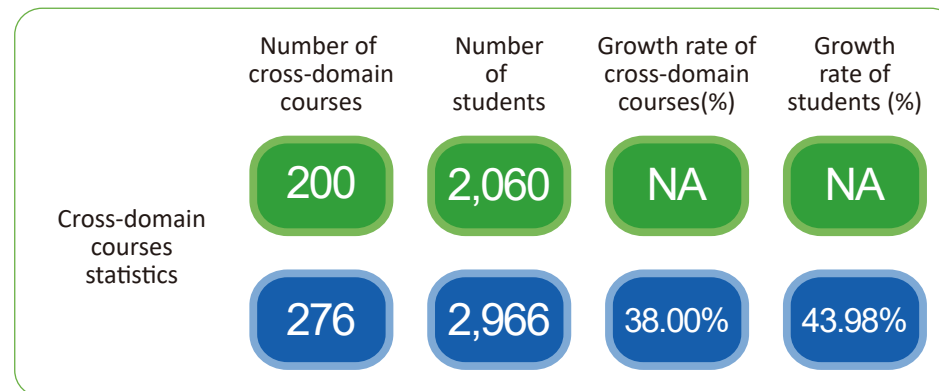


In order to develop the necessary capital for students to enter the society and adapt to the changing social and economic environment, YunTech continues to loosen the existing system and establish innovative teaching mechanisms allowing students to accurately grasp and appropriately respond and reflect on new challenges and complex situations.

Cross-domain learning to meet the trends in innovation and entrepreneurship

In order to strengthen students' ability for cross-domain cooperation and innovation and entrepreneurship, the university integrates cross-domain cooperation and innovation and entrepreneurship issues into the course. In 2017, the university offered combined courses, x + 1, singularity, cross-domain courses, 27% of the teachers were involved in inter-faculty collaboration.

In addition, the school has invested TWD 8.41 million to support the renovation of teaching space, carry out the turning-over of education, initiate the intelligent education and teaching mechanism, and start the renovation of classroom space according to the following procedures :



- Establishing the observation team for the teaching space and inventory of classroom space utility.
- Understanding the needs of teaching and learning, and space prototype design and planning.
- Building multi-functional and smart classrooms.

Construction and renovation of smart classrooms

Specifically, in 2017, YunTech invested in building a total of 12 technical teaching spaces, three cross-domain classrooms and one AR, VR and AVM laboratory to provide cross-domain courses. In 2018, four smart classrooms and two technological teaching spaces were added to enhance students' learning competitiveness through continuous upgrading of classroom equipment and integration of PBL teaching methods. The total floor area of 16 teaching space buildings is 2733.33 square meters. All constructions and renovations completed in 2018.

YunTech also created the nation's first virtual-reality integrated learning and experience demonstration base for online virtual teaching. Moreover, the Technological Pedagogical Content Knowledge Laboratory, an open teaching classroom modeled after the Open Course Ware of Harvard University, was built which provides self-made videos by teachers and students, and a subject teaching laboratory that processes big data in teaching. A simulated job interview system was also set up that allows students to practice. The laboratories provide space for discussion and interaction, self-directed learning, use of multimedia resources, and space for rest, quiet reading, and self-study. The system was officially launched in December 2015, designed to make learning easy and enjoyable for students.

IR Big Data Analysis to support / initiate Freshman Summer Homogenization Program

The 12-year compulsory education in Taiwan provided students with multiple admission channels, various higher education programs, and adaptive talent promotion policies, allowing technical colleges to recruit outstanding students from ordinary high schools and higher vocational colleges. Students begin with basic education during their freshman year which gradually becomes differentiated as they

progress through school. They will be asked to choose from the four major courses namely Calculus, Physics, Economics, and Chromatics, through a decision tree. For the first time in 2018, students received the basic ability test in the homogenized course (including basic capability testing) free of charge before they entered the university. The completion rate was higher than 90%. The test was done during summer vacation; however, because summer is the usual time for most students to go abroad or do job-hunting, the success rate was less than 100%. Another reason for this was the cumbersome procedures for overseas students' registration. Therefore, a supplementary test was done during the freshman year to ensure that all new students have completed the test.

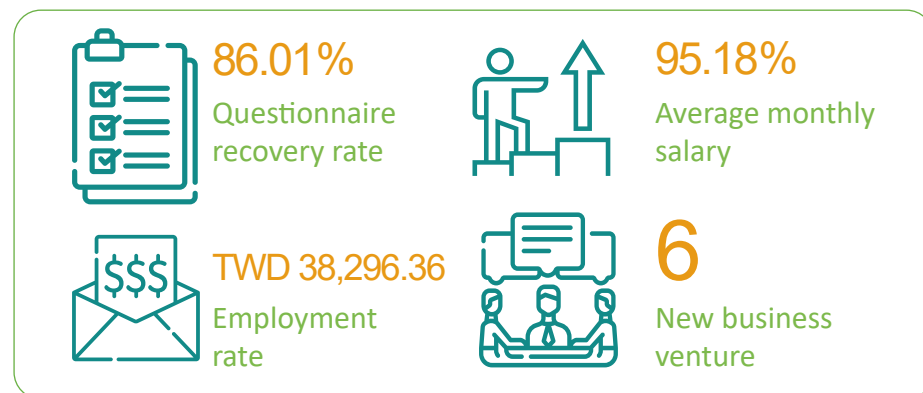
Based on the analysis of summer pre-curriculum for freshmen, it was estimated that the matching initiative can reduce the risk of placing students under a course that is not appropriate to their capability and skills by 67%, and can save about TWD 100,000 for employing TA as a supplementary course. This strategy is indeed effective in smoothening out the results of the differences in freshmen's learning behaviors.

The completion rate for the first freshmen ability testing in Academic Year 107 Completion rate for the freshmen ability test.

	Homogenized course				Basic capability testing	
	Calculus	Physics	Chromatics	Economics	Chinese	English
Completion rate	93%	92%	90%	93%	92%	97%

4-2 Results of Student Employment

Results of the 2018 survey on alumni turnover one year after graduation in Academic Year 105



Career Pathways of Graduates

Alumni resources are one of the important assets of the university. The opinions of the alumni can help the university reflect on the appropriateness of its operation and curriculum planning. In collaboration with the Ministry of Education's "Track the Career Pathways of College Students", YunTech uses the "cloud alumni service platform" as a system for alumni career care and tracing. Moreover, the Alumni Career Development Survey was used to track the status of alumni career development and obtain feedback from them. The data from the survey was used to examine the school objectives, curriculum planning implementation, and teaching adjustment.

The survey of career pathways of graduates one year after graduation was implemented from 2016 to 2018; 80% of the questionnaires were collected from graduates of the Academic Year 103-105. The results of the analysis showed that 90% of the graduates were employed.

2016-2018 survey on the employment situation of graduates of Academic Year 103-105 one year after graduation



Employer satisfaction

What happens when students graduate and enter the workforce is also a concern for schools. YunTech commissioned the 1111 Job Bank to conduct an annual survey of employer satisfaction, based on three aspects :

- The work performance of graduates such as: professional knowledge and skills, ability to apply online information, verbal ability, communication and coordination ability, ability to work with a team, and problem solving ability.

- Adaptability at work such as positive attitude toward active learning and ability to complete tasks smoothly and on schedule.
- Work ethics such as observing company regulations and business ethics, etc. A score of 5 indicates that the employer is highly satisfied with the employee.

YunTech graduates has maintained stable employer satisfaction in the past three years, with 3.9 on work performance, 4.0 on adaptability at work and 4.0 on work ethics.

Employers' satisfaction survey results (2016-2018)



Start-ups

YunTech invests a lot of resources in research and development. It has been actively promoting the commercialization of research and development results to help teachers and students realize their dreams of starting their own businesses. Through enterprise competition, innovative teachers and students can be assisted in setting up an enterprise team, and later, a campus innovative company, forming a campus culture of YunTech innovation and entrepreneurship. This helps nurture more teachers and students to invest in future innovative and entrepreneurial resources. In the past three years, 16 start-ups have been established.

YunTech is committed in shaping an innovative and entrepreneurial atmosphere inside the campus and creating a friendly environment for campus entrepreneurship. To facilitate the commercialization of research and development results and encourage the development of spin-off start-ups, industry experts are invited annually to select work teams that have a potential for commercialization and to advise on the establishment of campus start-ups. The selected teams will enjoy free business start-up courses and advisory services, business fee subsidies, and priority placement in the students' micro-business development classroom.



4-3 / Effects of life education



13

Number of international volunteer students in the academic year of 107



99%

The pass rate of CPR + AED in 2018



207

times/numbers of people of special education and life education activities in the academic year of 107

The connotation of life education is integrated into the current general education curriculum

The main task of general education is to strengthen students' basic subject ability and humanistic quality, to cultivate students to have correct outlook on life and professional ethics, and to carry out the spirit of whole-person education. Planning and operation mechanism of YunTech general education includes implementing the diversification of general education curriculum, building core competence, [integrating the connotation of life education into the existing general education curriculum](#), strengthening the general education teachers' learning community, promoting the general cross-domain learning curriculum (micro-credit curriculum).

Active communication with the general education curriculum teachers should be ensured every semester to make sure that the connotation of life education can be integrated into the curriculum, so that students can learn from the class and embrace a positive attitude toward life. Most of the general education courses offered by YunTech enable students to reflect on the meaning of life. For example, the course "Stories : Narration and Growth" requires the production of a life story book. Through the homework process, students can reflect on their past experiences again; the weekly thematic sharing session led students to reflect on different values and mutual respect through listening to each other's stories. Besides, there is also a course named "A Rare and Impressive Course" for students to show their feedback.

Under the concept of "All teachers in the school are general education teachers", YunTech has required all schools and departments to recommend teachers with high teaching enthusiasm and rich teaching experience to participate in life education courses. A "seed teachers for life education" team has also been set up. The team meets every month to exchange views and invite leading professors in the field of liberal studies outside the school to give lectures and interact with the seed teachers. The syllabus of the course is adopted by "adoption" method, which combines teachers' personal expertise and interests, and serves as teaching materials. In order to enable new students to feel the teachers' care and encouragement at all times, the seed teachers will be responsible for leading the new students of the college and enabling them to establish a good learning environment and relationship in the atmosphere of learning with others.

International Volunteer Service team

Starting from the academic year of 105, the service and learning section of the school's Academic Affairs Office will form its own international volunteer service team. Students with rich experience in international volunteer service will be invited to act as team leaders to guide the students. The team will jointly decide on the service targets, service items and itinerary planning. On the one hand, they show concern for the economic and social development of the disadvantaged. On the other hand, they train students' humanistic qualities and international mobile capabilities. Through the process, students are able to develop the ability to work as a team, learn to organize, plan, practice, lead, solve problems and seek support.

Health education activities

The health education section of the YunTech academic affairs office values health and establishes a safety first-aid network in accordance with the school health law and the occupational safety and health law. It provides a comprehensive life education mechanism and organizes health education activities to improve or enhance health and well-being, including encouraging teachers and students to roll up their sleeves and donate blood to save lives, promoting freshmen to learn CPR + AED basic lifesaving skills, training teaching staff, laboratory and community leaders to obtain certificates issued by Red Cross Society of R.O.C, assisting and guiding the Yunxin rescue club students to promote emergency teaching and life education in the rural primary school emergency rescue team. Moreover, YunTech conducts CPR + AED study for freshmen, 4 rounds of blood donation, 4 rounds of first-aid study, and 1 round of small-country first -aid team in winter and summer vacation every year.

Academic year of 105	Academic year of 106	Academic year of 107
<p>Share Yan Tai: Love Wonderland 2017/08/02-2017/08/14</p> <p>Project name/ Service period</p>	<p>Love Yun Thai 2018/07/27-2018/08/13</p> <p>Project name/ Service period</p>	<p>Fearless of far distance in Thai, but seeing starry Yun's sky 2019/7/23~2019/8/10 (tentative)</p> <p>Project name/ Service period</p>
<p>Star Home Nursery at Ban Hin Taek, Thailand</p> <p>Service location</p>	<p>Star Home Nursery at Ban Hin Taek, Thailand, Huilong Chinese School (Chiang Rai, Thailand)</p> <p>Service location</p>	<p>Star Home Nursery at Ban Hin Taek, Thailand, Huilong Chinese School (Chiang Rai, Thailand)</p> <p>Service location</p>
<p>9</p> <p>Number of volunteers</p>	<p>11</p> <p>Number of volunteers</p>	<p>13</p> <p>Number of volunteers</p>
<p>24</p> <p>Number of people served</p>	<p>724</p> <p>Number of people served</p>	<p>728</p> <p>Number of people served</p>

Effects of health education activities in 2018

- 01 1,471 freshmen attended CPR+AED, with a pass rate of 99%.
- 02 A total of 289 students and teachers took part in the 4-step first-aid training camp. 266 students obtained the first-aid certificate and the qualified rate reached 92%
- 03 A total of 261 teachers and students joined two times' blood donation campaign activities, donating 338 bags of blood.
- 04 During the winter vacation, volunteers went to Guizhuang elementary school in Dabi township, Yunlin County, to apply for the first aid team and 41 elementary school students have learned the basic knowledge of safety first-aid. During the summer vacation, they went to Shiliu elementary school, Yunlin County, to apply for the first aid team, and 40 elementary school students were taught the general knowledge of safety and first-aid.

In collaboration with the special education, the department has contacted various social welfare organizations for the disabled to co-organize the event. Through the design of the event, all staff, parents, students and even the community will be able to understand the nature of special education, avoid special marks, and be receptive and caring. In addition, the department assists special education students from their own point of view to realize their dreams bravely. Through the implementation of the plan, the dreamer can find his connection with the society, develop his vision of observing the society, and realize that he has the power to influence the society, which shows YunTech's ongoing efforts from the campus to encourage more disabled students to join the ranks of courageous dream-building and to build a disability-friendly campus and social environment.

Number of participants and events of special educational speeches or experiential activities which were held in the academic year of 105 to 107

Special Education and Life Education

YunTech counselling center has been conducting a school-wide special education and life education programme since the academic year of 102 to implement the concept of a friendly school environment and to ensure that education is inclusive, fair and of high quality. It helps disabled students adapt to and build up a friendly school environment so that they can accept special education. Besides, it will continue to encourage disabled students to join in the process of realizing their dreams so as to enhance their self-confidence and make continuous efforts to build a barrier-free and friendly campus environment.





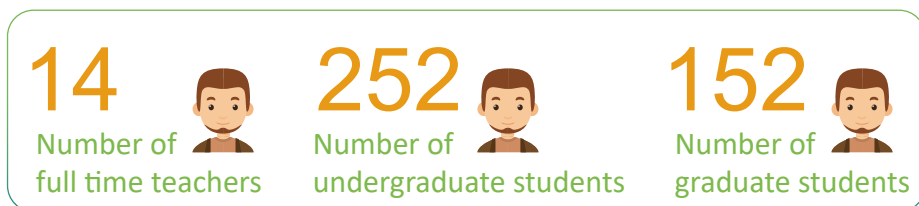
4-4 / Effects of Environmental Sustainability Education

The performance of the environmental sustainability education effects in the following four first-class and second-class units :



YunTech's environmental sustainability education units include Department of Environmental, Safety and Health Engineering, Water and Soil Resources and Disaster Prevention Research Center, Research Center of Industrial Pollution Prevention, Research Center for Sustainable Development and Social Practice, etc. Which are responsible for professional development, environmental sustainability education, and assisting the government and the community in soil and water conservation, disaster and pollution related teaching, testing, prevention and control services.

Department of environmental, safety and health engineering



The Department of Safety Health and Environmental Engineering was established in 1992. At present, there are university department, master's class, master's in-service class and doctor's class. Besides, the department now has 14 full-time teachers, all of whom have many years of practical experience and enthusiasm for work. There are also 4 full-time teachers with rich practical experience to develop its diverse and international characteristics.

The Department of Safety Health and Environmental Engineering aims to equip students with basic mathematical and engineering skills to meet the needs of the industry, and to cultivate a caring environment and a spirit of continuous life-long learning. In 2005 and 2009, the department received the first-class evaluation awarded by the Ministry of Education in the contest of the national universities of Science and technology. In 2006, 2009, 2011, 2014 and 2017 respectively, it got the International IEET Department of Engineering and science and technology education accreditation and won the recognition of the international engineering education sector. The department's courses focus on both theoretical and practical training including core courses like fundamental science, engineering design, management, social sciences and other professional elective courses. At the same time, in order to help students obtain professional certification through practical training, regular professional certification training courses such as environmental or safety training are offered to enhance students' employability through theoretical and practical training.

The Department of Safety Health and Environmental Engineering focuses on the development of students' practical abilities, with emphasis on training students' practical projects and practical design abilities. It provides different types of laboratories, including four

teaching laboratories and 15 professional research laboratories. The school also has the Environmental Incident Response Advisory Centre, the Water and Land Resources and Disaster Prevention Technology Research Centre, Center for Process Safety and Industrial Disaster Prevention, Sustainable Development and Green Technology Research Center, Support Center for Air Quality Model and Clean Green Sustainable Innovation Practice Center. Teachers from the Department of Environmental Safety are the main members of the center. They actively strive for the cooperation of production, government and education. In the future, the school will continue to develop internationalization and cooperate with government and industry policies to train students to become the advanced technical talents in the fields of environmental engineering, safety and health, disaster prevention and green environmental resources.

Research Center for Soil & Water Resources and Natural Disaster Prevention

Research Center for Soil & Water Resources and Natural Disaster Prevention plays an important role in environmental sustainability in which there is a director, an executive secretary and a deputy executive secretary and four departments including secretary department, administration department, technology R&D department, education and promotion department. Each department has a team leader and 1-2 deputy team leader, and a number of researchers. The research center is set up to :

I. Local Goals :

- Assist local government in planning, investigation, analysis and conservation of land and water resources.
- Assist local governments in the establishment of natural and man-made disaster prevention systems.

- Assist local government to solve problems related to water and land resources, disaster prevention and disaster relief.

II. Central Goals :

- Assist the central government in promoting policies related to water and land resources.
- Assist the central government in the establishment of the Zhuoshui alluvial fan water and soil resources management system.
- Assist the central government in promoting the establishment of mechanisms and systems related to water and land resources, disaster prevention and disaster relief throughout the country.

III. International Goals :

- Take the initiative to provide and promote international research and development on water resources and disaster prevention and disaster relief.
- Actively assist in the establishment of international water resources, disaster prevention and disaster relief related mechanisms and systems.
- Actively involved in transnational soil and water resources conservation, natural and man-made disasters prevention and control work.

Area of expertise

- Prevention of strata subsidence
- Regional water resources allocation
- Taking aerial photo and motion picture
- Water resources survey planning
- Emerging water resources development
- Environmental monitoring
- Pollution investigation and prevention
- Handling of public dispute cases and popularization of assessment techniques

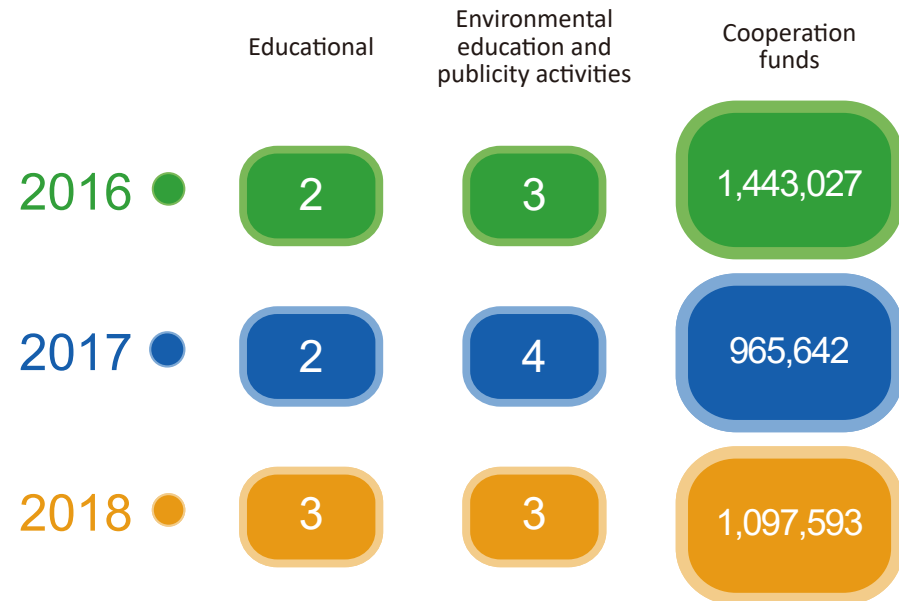
Research Center of Industrial Pollution Prevention

The Research Center of Industrial Pollution Prevention plays an important role in environmental sustainability. In line with the state's policy of giving equal attention to both economic development and environmental protection, YunTech has actively promoted educational co-operation, industrial testing and personnel training in industrial pollution prevention, and finally established the Research Center of Industrial Pollution Prevention on 1 August 1996. The purpose of the center is to integrate the teaching staff and equipment into the fields of environmental protection and pollution prevention, etc., and to engage in research and development in water resources issues, waste water pollution and prevention, air pollution and prevention, noise and vibration, technical consultation on toxic substances, waste pollution and prevention and prevention of industrial pollution. Through the cooperation between industry and university, the research projects and technical exchanges with public and private pollution prevention research institutions at home and abroad can be expanded. At the same time, the software and hardware resources, such as teachers, equipment, etc., should be made full use of to upgrade domestic pollution prevention technology and expand R & D achievements and to advance the goal of pollution prevention with the consideration of industrial development and environmental protection.

In recent years, The Research Center of Industrial Pollution Prevention has carried out at least 4 cooperation projects in government and industrial environmental protection and pollution prevention projects and researches. Under the guidance and research of teachers' professional competence, the average annual output is 1,168,754.

To assist in the promotion of Environmental Education, the center plans to organize educational training, study and publicity activities to educate students and the public about the importance of environmental protection.

Cooperation Funds and Activities that the Research Center of Industrial Pollution Prevention Industrial Pollution received and help from 2016 to 2018 respectively



Research Center for Sustainable Development and Social Practice

University social responsibility is a symbol of concern and assistance in solving social problems. At the beginning, the original intention of setting up the social practice center was actually very simple. **We should make more people realize what we are capable of, where we can help the society and assist in the resolution of social issues through fieldwork, design training, social design, experience design, service design and other ways.** In addition, the center teaches students not only to master emerging technologies but also to focus on social issues in a university-based and problem-oriented manner. Students are expected to be able to solve problems in the face of new challenges and complex situations with rapid changes in the future.

YunTech has been working on the ground for a long time. It has helped many communities throughout Taiwan to rediscover themselves and to implement guidance in the areas of community culture, environment and community industries. We hope that through long-term companionship and community trust building, the community can grow on its own. We also assist declining industries in industrial counseling and value added to help industries out of the doldrums and develop their own industrial characteristics.

Advocacy	"experiential curriculum", "localized curriculum", "community-centered curriculum" and "maker education curriculum" should be used to construct the systematization of social practice.
Task	To create more connections for social practice between teachers, students and local communities.
Vision	A model for establishing a love and care strongholds for life.

4-5 / Academic Achievements

477	Total number of publications	63	SSCI	12	Number of publications based on industry-academia cooperation
252	SCIE	105	Number of publications based on international cooperation	1	Award for Outstanding Research of Ministry of Science and Technology

Knowledge is the most powerful force to change the world, and academic research is the foundation upon which knowledge is generated. YunTech hopes to enhance sustainable development through the power of knowledge. YunTech encourages teachers to participate in academic research and publish their achievements. It sets out the key points of the "Award for Publication of Articles in Academic Journals" to encourage teachers to actively publish papers in high-quality academic journals for the purpose of enhancing the atmosphere of academic research. YunTech formulates the "Key Points on the Flexible Wage System of the Higher Education Sprout Project", sets up Academic Research Merit Award, and invites distinguished professor of Feng Tay, part-time professor and distinguished professor of YunTech to attract and retain talents with outstanding academic research achievements.

Number of academic publications and its growth rate from 2016 to 2018

Publication year	Total number of publications	Growth rate%	Number of publications (SCIE)	Growth rate%	Number of publications (SSCI)	Growth rate%	Number of publications based on international cooperation	Growth rate%
2016 ●	443	NA	203	NA	43	NA	50	NA
2017 ●	414	-6.55	200	-1.48	39	-9.30	76	52.00
2018 ●	477	15.22	252	26.00	63	61.54	105	38.16

Number and ratio of papers published in the top 25% of journals in 2018 *Data source: From the Scopus Database

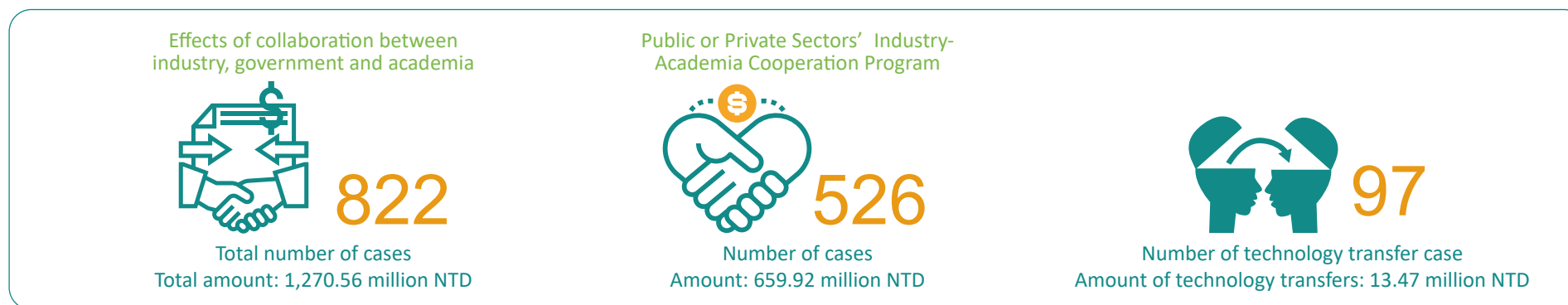
Periodical quality	Quantity of publication	Ratio%
Top 1%	6	1.6
Top 5%	47	12.4
Top 10%	98	25.9
Top 25%	212	46.7

In the past two years, the impact of YunTech papers published in seven fields of study was higher than the world average(FWCI>1). The FWCI refers to Field Weighted Citation Impact. If the FWCI is greater than 1, the papers' citations were higher than the world average. Most importantly, the school has excelled in academic fields related to sustainability, such as Earth and Planetary Sciences, Energy, Nursing and Medicine.

Fields of study in which YunTech papers published have a higher impact than the world average *Data source: From the Scopus Database

Field of study	Number of publications	Ratio%
Arts and Humanities	10	1.37
Business, Management and Accounting	32	1.13
Earth and Planetary Sciences	19	1.24
Energy	63	1.07
Nursing	4	1.34
Medicine	21	1.11
Neuroscience	3	1.39

4-6 / Effects of Industry-Academia Cooperation



Effects of Collaboration among Industry, Government and Academy

In order to fulfill its vision, goal and strategy of harnessing the energy of YunTech's application-oriented research, leveraging local, industrial, social and global influence, and constructing a mechanism which links R&D achievements with new ventures to address local, industrial, social and global issues with the application of educational and R & D resources, the university has formulated the "Key Points on the Flexible Wage System of the Higher Education Sprout Project", and uses methods such as setting up the Award for Industry-academia Cooperation, the Merit Award for Industry-Academia Cooperation, Subsidy for Patent Application, Subsidy for Promoting Patent Activation to attract and retain talents with outstanding academic research achievements and to expand the effectiveness of knowledge application with the purpose of addressing local, industrial, social and global issues with the application of educational and R & D resources and making contributions to the sustainability of economy, environment and society.

The term "industry-academia cooperation" refers to the fact that the school can obtain relevant income and benefits from the use of existing teaching staff, manpower and equipment by various units of the university in offering services, such as project research, industrial services and educational training, entrusted by government agencies, public institutions run by public or private sectors' , non-governmental organization and academic research institutions. In the past three years, the number and amount of the cooperation between industry, government and academy in YunTech have been increasing year by year. Among the national universities of science and technology, YunTech ranks second in terms of the performance of industry-academia cooperation. About 80 per cent of the teachers in YunTech are engaged in industry-academia cooperation, who can provide students with the opportunity to learn from practice and enhance their employability. That can assist the industry, the government and the community in solving problems and provide employment opportunities for new businesses. In addition, in 2018, YunTech was successively awarded the national " Industry-Academia Cooperation Merit Unit" by the Chinese Institute of Engineers and the "Innovation and Education Merit Institution" by the Small and Medium Enterprise Administration, Ministry of Economic Affairs.

Statistics on collaboration among industry, government and academy from 2016 to 2018

Year of 2016	Year of 2017	Year of 2018
Ministry of Science and Technology		
158 Number of cases	158 Number of cases	152 Number of cases
11,534 Amount (10,000 NTD)	11,364 Amount (10,000 NTD)	11,650 Amount (10,000 NTD)
Subsidy cases		
154 Number of cases	144 Number of cases	144 Number of cases
46,769 Amount (10,000 NTD)	43,900 Amount (10,000 NTD)	49,414 Amount (10,000 NTD)
Public or private sectors' industry-academia cooperation		
419 Number of cases	461 Number of cases	526 Number of cases
36,131 Amount (10,000 NTD)	46,313 Amount (10,000 NTD)	65,992 Amount (10,000 NTD)
Total amount		
731 Number of cases	763 Number of cases	822 Number of cases
94,424 Amount (10,000 NTD)	101,577 Amount (10,000 NTD)	127,056 Amount (10,000 NTD)

Effects of Technology Transfer

By regularly handling technical energy(patents), reviewing technical personnel inventory, cooperating with research service centers, strategic alliance partners and local industry resources, YunTech assists the industry to overcome the technology gap and enhance the added value through specific methods such as offering legal and marketing related services like expert consultation, technical training, functional upgrading or coaching on business operation. It also promotes innovative management mechanism for transfer and diffusion of technology and assist teachers and students to carry out innovative research and technology transfer with the aim to making contributions to employment and economic growth through promoting knowledge circulation and appreciation and serving the society.

Due to geographical factors, most of the neighboring manufacturers of YunTech are small and medium-sized enterprises (SMEs) with small operation scale and low demand for technology transfer. In order to effectively enhance the performance of "technology transfer", YunTech actively seeks the opportunity for industry-academia cooperation through enterprise visits and participation in various industrial park associations. In addition, it will enhance the commercialization of technology, improve the quality and quantity of research, win the favor of more manufacturers and provide valuable technology, so as to enhance our contribution to industry and economic development.

Number and Amount of Technology Transfer Contracts Signed during 2016 and 2018

Year	Number of cases	Amount (10,000 NTD)
2016	100	1,736
2017	87	1,068
2018	97	1,347

4-7 / Chain Counseling System



Awarded as the Merit School for Implementing Counseling in 2018



197 people in total

Students received schoolwork counseling in the academic year of 107-1



The first utilization of UCAN (The University Career Alumni Network) for freshmen in the academic year of 107.

Life Counseling

YunTech has set up a counseling center with the main objectives of maintaining and improving the mental health of students and faculty, helping students to understand themselves, solving psychological problems arising from life, study and career development so as to develop their personal potential and pursue self-fulfillment. The counseling center has a total of 23 personnel and provides mental health counseling services, such as developmental counseling, intervention counseling, and treatment counseling.

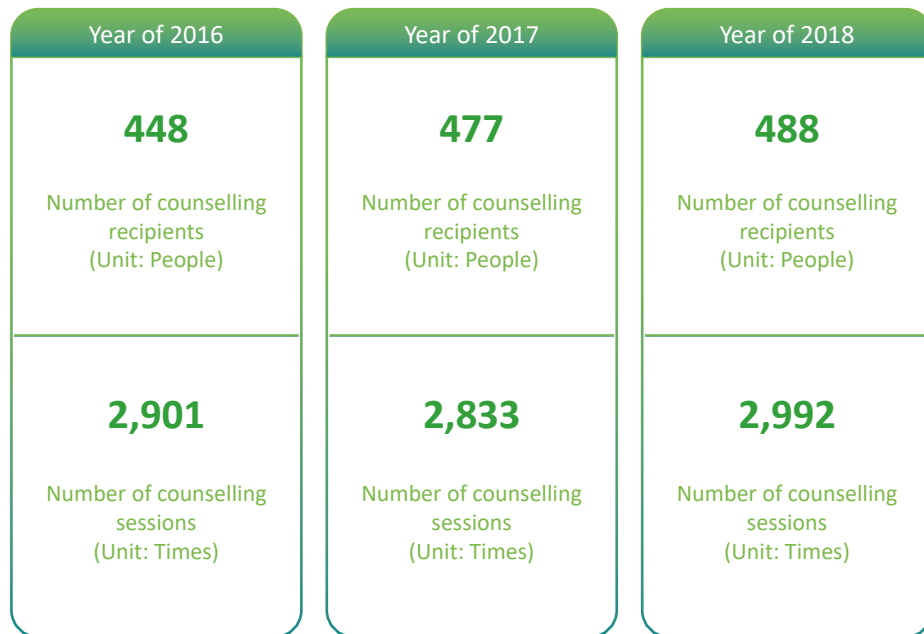
Procedures for Individual Counseling Service

YunTech offers a full-time computer-based (E-Service) for counseling case management and psychological counseling appointment. Faculty and students in Yuntech can access the counseling booking system through the internet. And they can make an appointment for

consultation and search related counseling information at any time and in any place. Leveraging the convenience provided by the World Wide Web and the data storage function provided by the database system, Yuntech set up the online consultation appointment and case management system cooperated with services such as face-to-face interview, telephone and E-mail, to make our school's consultation service more complete and comprehensive.

A positive psychology-oriented screening program for freshmen and junior students who need highly caring (Mood Monitoring Program)

In order to establish an early warning system for high-care cases, YunTech has implemented the screening program of high-care group for new students (Mood Monitoring Program) since 2006. At the beginning of each school year, full-time and part-time psychologists and intern psychologists will carry out this program in the form of class-by-class discussion within one month after the new students enter the school. In addition to psychological tests, psychological health education will be conducted. Tests will be carried out on the premise of obtaining the students consent. Psychologists from various departments will build the data of screened cases in the counseling system of the school and provide care through telephone contact. Students will be invited to participate in such activities as individual consultation or group counseling, attending K workshops with the purpose of enhancing their psychological growth. At the same time, Yuntech also cooperate with tutors to keep track of and care for the cases, expecting to help students to develop effective environmental adaptability through cohesive counseling network.



Learning Counseling

Most YunTech students come from vocational or technical schools, and some of them obtain lower academic achievements in secondary school, due to their lack of basic learning ability, low learning motivation and initiative and failure in mastering the key learning strategies and skills. However, this does not mean that technical students are less qualified. Given guidance and assistance, they still have the opportunity to realize their potential. In addition, in light of the increasingly changing social situation, disadvantaged students need stronger support from schools to help them settle down and get on with their pursuit in society. Noun of the students should be given up, and Yuntech hope to provide students with better support with the learning counseling network.

Counseling for Students Screened out in the Early Warning System

The Center for Excellence in Learning and Teaching will send the information of students screened out in the early warning system to the class tutor every semester. The tutor will conduct learning counseling interview with the student in person. After the recovery of the record of the counseling interview from the tutor, the Center for Excellence in Learning and Teaching will send the list of students who need to receive counseling service to the Counseling Center. Then, the psychologists will contact the students to give them care through understanding their performance in academic study and their adaptation in various aspects and providing counseling service via telephone and letter or offering counseling assistance according to the needs of students.

Measures for Schoolwork Counseling

YunTech has screened out compulsory courses, courses with more than 40 students and a failure rate of more than 20% through IR analysis. In order to help students, improve their academic performance, a preventive learning early warning mechanism has been established. The tutors will conduct learning counseling interviews with the warned students. And after the recovery of the record of the counseling interview from the tutor, the tutors and teaching assistants will be matched to help the students. For instance, in the first semester of the academic year 107, a total of 272 students were put on the list of early-warning, among which a total of 197 students received learning counseling, making the ratio of assisted students reaching 72%. From the 2016 to the first semester of the academic year of 107, the total number of courses offered by the school is 4,292, and the number of teaching assistant courses is 2,758, accounting for 64.2% of the total number of courses offered, which has successfully improved students' learning efficiency.

Counseling for International Student

In view of the caring for international students (including students from the Strait Special Class), the Office of International Affairs invites the tutors of international students to arrange interviews with international students before and after the mid-term examination. The tutors are requested to care for international students in a timely manner in order to find out if international students have any difficulties or maladjustment in their study or life, and to give assistance and advice to them in time. In addition, Yuntech match students from our school with Chinese nationality every semester as international students' study partners and conduct training courses for becoming the international students' study partners in order to guarantee that all international students will have, at least, one study partner with Chinese nationality of our school, with the aim of reducing cultural impact so as to create a friendly campus environment and enhance cross-cultural exchange among students. The Counseling Center will introduce its resources to international students during the the orientation session from the beginning of each semester. The Counseling Center will also provide individual counseling, group counseling and class discussion during the semester, to help international students adapt to study and live in Taiwan as soon as possible.

Counseling for Students Who Suspend or Quit their Studies

The Counseling Centre provides care to students when they come to apply for suspending or quitting their studies. Through caring and counseling, Yuntech can have a clear clue of their decision to suspend or quit their studies, therefore, adopting a sympathetic attitude to

accompany them through the course of their retirement decisions. In this process, besides sorting out students' mood in making the decision to suspend or quit their studies, Yuntech also provide relevant resources both inside and outside the school based on the reasons behind their decision. For example, Yuntech provide emergency relief, apply for course assistance resources for the students, protect the education rights of pregnant students, and inform retired students of the counseling service and other related rights and interests. Yuntech hope that through a two-pronged approach by applying both psychological and material resources, Yuntech can provide better resources so as to help students effectively. At the same time, Yuntech hope that through counseling students who suspend or quit their studies, Yuntech can understand the reason why students make this decision and that can be taken into consideration in future counseling measures

Remedial Teaching of English

Since 1999, remedial English teaching has been conducted in small classes by the Department of Applied Foreign Languages and language center to help students with poor English regain confidence in learning English and catch up with other students. The English remedial course conducts a diagnostic test for the students who participate in the course with the purpose of knowing their level as to design and open the remedial course. After the course, a post-test will be conducted to assess the students' progress, and those who meet the progress standards will be arranged to participate in the self-study program, while the non-achievers have to continue the English remedial courses.

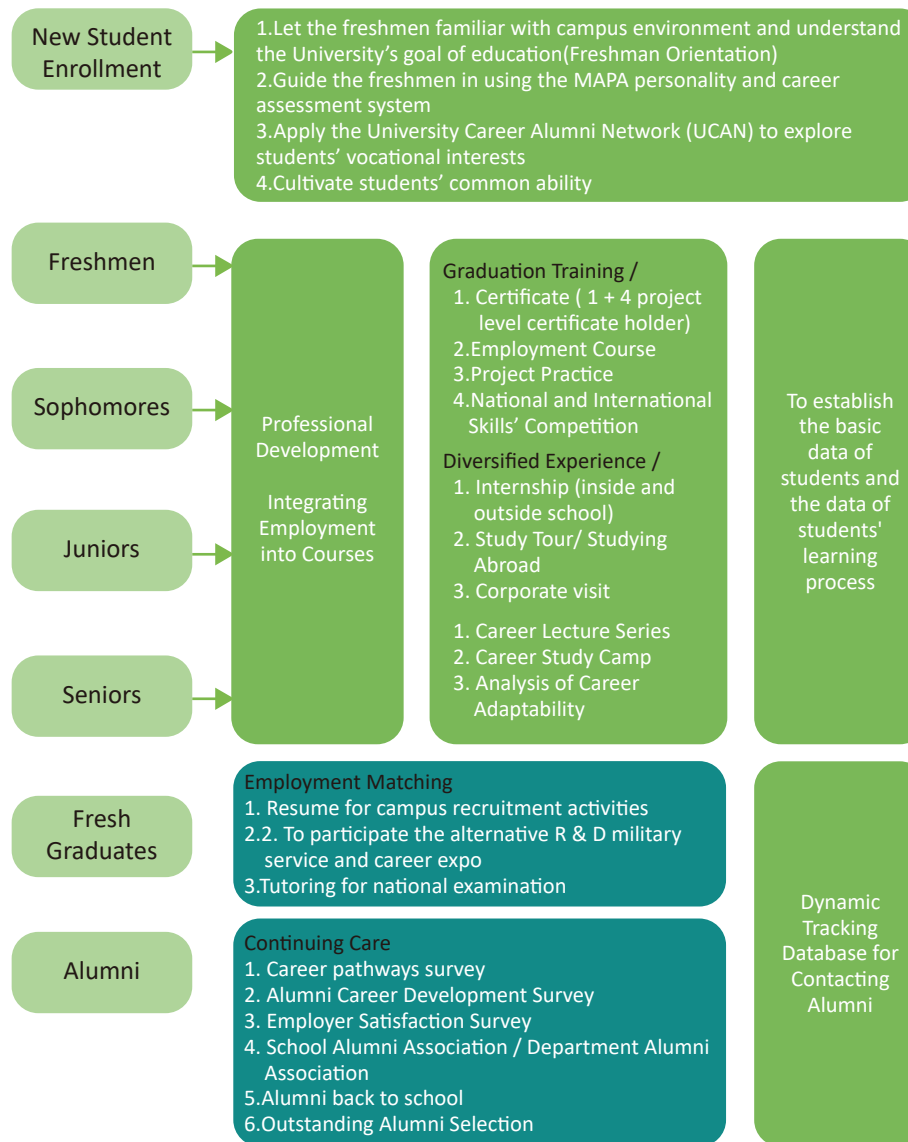
Career Counseling

YunTech students career counseling is mainly about enhancing students' employability, improving their creative thinking ability and cross-domain knowledge. With the application of the MAPA personality and career assessment system, Yuntech aim to help students understand their career interests and make them as a reference for their career choice. Yuntech also promote the career interest exploration and aptitude diagnostic test on the University Career Alumni Network (UCAN). In 2018, the response rate of UCAN was 73% and relevant seminars and activities have also been organized to help students understand the job market as early as possible and enhance their career advantages.

In order to improve the employment counseling mechanism for graduates, there are different counseling measures for students from their entrance to the school till graduation.

Flow Chart of Employment Counselling

Academic Year	Number of companies participating in campus recruitment	Number of activities related to employment counselling
105	109	33
106	101	38
107	115	60



Student internship



In order to cultivate students' ability to combine theory with practice, help them understand the corporate culture via practical courses, and build up their cognition of professional ethics, YunTech sets up regulations that university students complete at least 320 hours of practical work before graduation, and makes that requirement a threshold for graduation.

Pre-Internship :

students will be able to understand the job content of various internship vacancies through participating in the job assessment conducted by the internship organization, the internship vacancy briefing, the pre-internship briefing and the related lecture activities. At the same time, through the promotion of the Matching Information Platform for Students' Internship, the internship matching process has been optimized. And the work of posting internship vacancies and submitting resumes have been conducted online, which then shortens the working time of the manual labour.

During-Internship :

Yuntech will ensure the achievement of the internship objectives and the performance of the internship students through internship counseling visits and internship report review.

After-Internship :

Yuntech use such means as publicizing the internship results,

conducting internship assessment to assess student performance. And their internship performance will serve as the basis for the follow-up performance assessment. In addition, through the questionnaire survey on internship satisfaction, Yuntech can find out the satisfaction degree of students and institutions on the internship program, which can be used as the basis for the following process improvement.

Counseling and Guidance Services

According to the results of statistical analysis of problems or issues being counseled in the past three years, problems related to self-understanding rank the 3rd place and issues related to career-development rank the 5th place. And further analysis reveals that students who receive the counseling and guidance services are at a loss about their self-concept and self-identity, and they have no idea about their career choice or vocational choice and cannot establish their own career direction. Besides, in the first semester of the academic year of 106, a survey was conducted on the condition of freshmen's physical and mental adaptation. The results showed the dimensions that freshmen felt most troubling, among which career troubles ranked the fourth. Further study was conducted on students' troubles concerning career development, and Yuntech found that most of troubles lie in the fact that the students do not have a clear career goal and do not know how to arrange the college life, how to make a career choice without regret and how to explore themselves.

For many years, the Counseling Center has been devoted to the promotion of the three-level counseling service. Students' career exploration and planning belongs to the first-level developmental counseling. Yuntech constantly bring forth new ideas in promoting career themes with the purpose of inspiring students to enhance

self-understanding, to determine career orientation, to develop career blueprint and to understand the trend of the workplace. Yuntech plan various career-related activities with the focus on strengthening the career counseling ability of our counsellors, and Yuntech assist students and career counsellors to achieve the following objectives :

- To help students clarify their values, understand their career interests and find out the obstacles which block their career development.
- To help students set learning goals, adjust their career direction and plan their life blueprints.
- To improve the knowledge and ability of relevant counsellors and strengthen their career counseling ability.

In collaboration with the Office of Student Affairs, Teachers Training Center and Research and Development Department, Yuntech put forth effort to meet students' demand for life and career counseling and guidance. In addition, Yuntech link up the counseling service in the aspects of learning, life and career with the aim of providing systematic and cooperative services. In 2018, Yuntech held 51 career counseling sessions.

To assist students in planning their career, understanding study pathways or the job market, YunTech organizes seminars every academic year to help students get to know themselves so as to make preparation for further studies or early entry into the job market. In addition, Yuntech have been actively applying for projects from unites outside to promote various activities with the purpose of assist students to build their career models.

From 2016 to 2018, a total of 70 lectures related to career and employment were held in Yuntech, which invited experienced professionals from the industry to share relevant experience and information with the students. In addition, officials from the Ministry of Examination and Selection were invited to introduce the latest information of the national examination. By leveraging the industrial, governmental and academia resources, Yuntech introduce possible future career choices to students and help them know the job market, so as to let them grasp the dynamic trend of the job market in time and prepare themselves for personal career development as early as possible.

Student Grievance Mechanism

The Grievance Mechanism is formulated in accordance with Article 33, paragraph 4, of the University Act, the "principles for handling grievance of University and Vocational School Students" of the Ministry of Education and the provisions of Article 12, Paragraph 5, of the organizational regulations of our university.

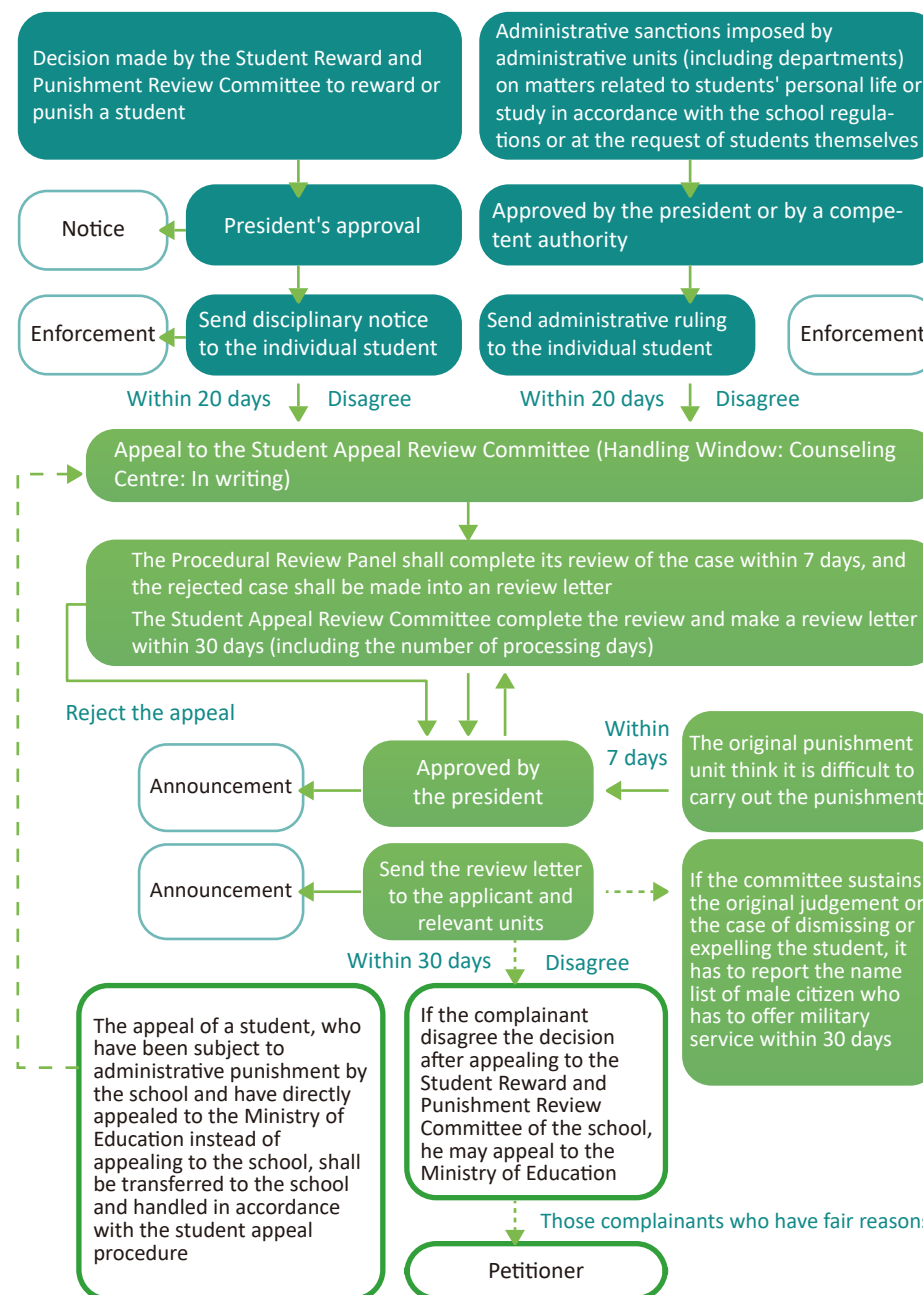
In order to protect the legitimate rights and interests of students, strengthen communication between teachers and students, establish campus ethics, and promote a harmonious atmosphere, YunTech has set up a "Student Appeal Review Committee" to handle complaints from students, student unions and other student self-governing organizations. Those who believe that the school's punishment measures, measures or resolutions concerning other issues, which result in harm to their rights and interests, are illegal or improper, may appeal to the Student Appeal Review Committee in accordance with the Measures for Student Appeal.

The Student Appeal Review Committee shall have 11 to 15 members, with 5 to 8 representatives of teachers chosen by the president, 3 to 4 representatives of professionals in the fields such as law, education and psychology, and three student representatives. More than one third of the members shall be of either sex. The term of office of the members is one academic year and they shall be eligible for re-election.

A total of 3 appeal cases in the academic year of 106 were handled in accordance with the measures for appeal and other related procedures. Among them, 2 cases were closed, and 1 case was brought to administrative litigation according to the relevant relief channels because the students did not accept the appeal result.

The flow chart of handling student appeals is as follows :

The flow chart of handling student appeals of the National Yunlin University of Science and Technology



System of Advice on School Affairs

The System of Advice on School Affairs is built according to the resolution of School Affairs Conference in the first semester of the academic year of 106. It was established by the Information Center and was implemented in the second semester of the 106 academic year. People who want to give advice to our school should be faculty, students and alumni of our university. The unit responsible for this business should process the reply within 5 working days. After the reply, the advice will be uploaded to the platform, and the monthly information will be compiled and submitted to the headmaster.

The system was put into operation on February 26th, 2018. A total of 60 pieces of advice were received, of which the safety and health of the campus environment was the largest.

Nature and Number of Faculty and Students' Advices in 2018

Field of study	Ratio%	Ratio%
International Cooperation and Academic Exchange	1	1.67
Overall Marketing of the University	1	1.67
Book Information	2	3.33
Scholarships and Emergency Aid	2	3.33
Student Affairs	2	3.33
General Affairs	2	3.33
Other Issues	4	6.67
Curriculum and Academic Affairs	5	8.33
Teaching and Student Learning	17	28.33
Safety and Health of Campus Environment	24	40.00
Total Amount	60	100.00



05 /

Financial Performance

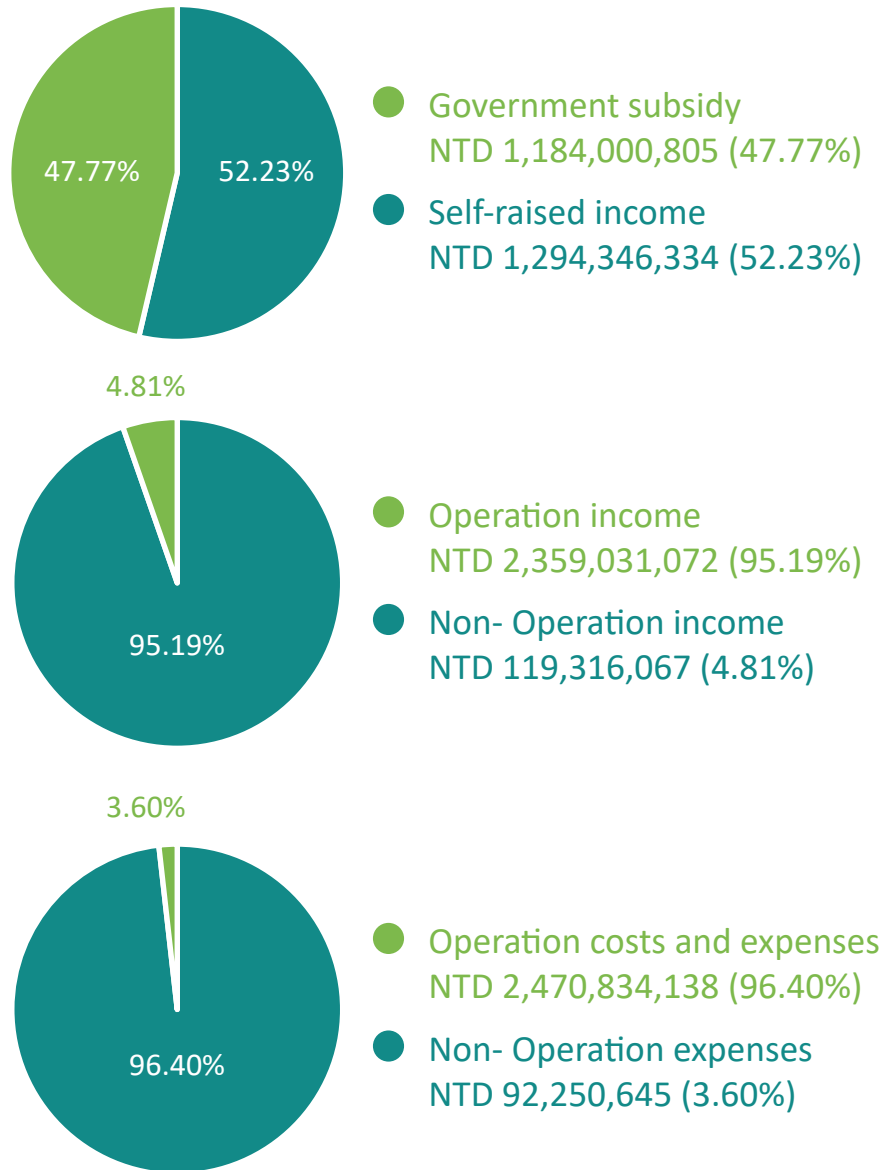
Major issues of this chapter

- Financial Governance



5-1 / Financial Performance

Financial Report of 2018



Effective fund planning and distribution are closely related to the development of the whole school affairs. In line with YunTech's self-positioning and development, each of its unit develops various fund plans which are measured using basic indicators and expected benefits. In order to effectively manage the university's fund and accomplish various school development plans, the Fund Management Committee of the National Yunlin University of Science and Technology was established, in accordance with Article 5 of the Regulations on the Establishment of the National University School Fund and the Measures for the Administration and Supervision of the National University School Fund promulgated by the Ministry of Education. In addition to reviewing the university's annual budget, the Fund Management Committee of YunTech is responsible for assessing its income and financial performance, and for evaluating the overall planning of its financial strategy in accordance with the development goals of all school affairs. YunTech's annual financial statement is compiled by its main accounting office, which is then submitted to the Ministry of Education and published on the university's website.

YunTech takes pride in having excellent industry-academia performance. The industry-academia cooperation income has increased by 22.93% in 2018, which reflects the school's vision and effective strategy in solving local, industrial, social, and global problems. Because of this, the university was granted some of the best government subsidy programs, such as Higher Education Intensive Cultivation Program, Teaching Excellence Plan, Plan for the Development of a Model University of Science and Technology, etc. In 2018, the amount of government subsidy it received has increased by 19.97%. The university actively handles the promotion of education, invites experts of various fields to give lectures, and provides lifelong learning opportunities for local residents and workers. The university works hard and exerts great effort in helping its students and the community as whole, gaining the trust and confidence of many

organizations including enterprises, alumni, parents of students, and other stakeholders. In 2018, monetary donations from private entities have increased by 46.96%. In terms of its expenditures, students' public fees and rewards has increased the most (35.89%), which shows that YunTech cares for its disadvantaged students.

Items, amount and growth rate of YunTech' s revenues from 2016 to 2018

	Year	Project Amount (NTD)	Income from Tuition and Miscellaneous Fees	Income from Industry-academia Cooperation	Income from Extension Education	Rental and Royalty Income	Subsidies income	Financial Income	Donations	Other Income	Total
Income	2016	Project: Amount (NTD)	494,606,000	430,185,000	13,701,000	4,030,000	976,839,000	26,000,000	6,116,000	64,880,000	2,016,357,000
		Growth Rate Compared with Last Year	-3.32%	0.84%	-29.12%	-63.04%	-2.52%	93.74%	-9.25%	-12.29%	-2.34%
	2017	Project: Amount (NTD)	520,109,256	507,790,582	18,062,425	7,910,720	986,516,785	25,057,325	15,149,784	64,567,212	2,145,164,089
		Growth Rate Compared with Last Year	5.16%	18.04%	31.83%	96.30%	0.99%	-3.63%	147.71%	-0.48%	6.39%
	2018	Project: Amount (NTD)	516,305,827	624,228,064	20,395,311	8,393,047	1,183,571,150	24,960,478	22,263,917	78,229,345	2,478,347,139
		Growth Rate Compared with Last Year	-0.73%	22.93%	12.92%	6.10%	19.97%	-0.39%	46.96%	21.16%	15.53%

Items, Amount, and Growth Rate of YunTech' s Expenditures from 2016 to 2018

	Year	Items	Research and Training and Guidance Costs	Industry-academia Cooperation Costs	Extension Education Costs	General and Administrative Expenses	Research Development and Training Expenses	Expenses of students under government sponsorship and Rewards	Other Expenses	Non-Operation Expenses	Total
Cost	2016	Project: Amount (NTD)	1,295,002,314	480,452,432	17,172,395	266,620,318	3,783,187	112,124,745	5,544,851	106,197,855	2,286,898,097
		Growth Rate Compared with Last Year	2.73%	14.94%	0.35%	15.86%	-83.54%	-4.68%	2.16%	51.87%	6.77%
	2017	Project: Amount (NTD)	1,300,275,823	503,955,173	14,740,312	233,292,614	1,344,831	84,895,881	5,377,647	82,359,040	2,226,241,321
		Growth Rate Compared with Last Year	0.41%	4.89%	-14.16%	-12.50%	-64.45%	-24.28%	-3.02%	-22.45%	-2.65%
	2018	Project: Amount (NTD)	1,485,450,025	603,711,329	16,016,738	244,743,455	0	115,366,273	5,546,318	92,250,645	2,563,084,783
		Growth Rate Compared with Last Year	14.24%	19.79%	8.66%	4.91%	-100.00%	35.89%	3.14%	12.01%	15.13%

YunTech provides its students with aids through the subsidies from the Ministry of Education and from its self-raised income. In the academic year of 106, the total number of aid beneficiaries was 4,086, and the total amount of aid given was NTD 59,307,890. The university prepared certain criteria to be followed to ensure that the assistance will be given to deserving students.

Distribution of Student Aid in the academic year of 106

Type of Student Aid	Number of Beneficiaries (person-time)		Total	Rate	Amount Granted (NTD)		Total (NTD)	Rate
	Male	Female			Male	Female		
Student Aid for Disadvantaged Students in Colleges and Universities	267	232	499	12.21%	3,880,532	3,175,750	7,056,282	11.90%
Student Aid for Life	11	9	20	0.49%	528,000	432,000	960,000	1.62%
Financial Aid for theWork-Study Students	747	904	1,651	40.41%	10,328,021	12,790,016	23,118,037	38.98%
Financial Aid for Graduate Students	1,208	579	1,787	43.73%	17,371,137	9,285,589	26,656,726	44.95%
Emergency Financial Aid	23	18	41	1.00%	412,000	332,000	744,000	1.25%
Accommodation Discount	45	43	88	2.15%	393,515	379,330	772,845	1.30%
Total	2,301	1,785	4,086	100.00%	32,913,205	26,394,685	59,307,890	100.00%

In addition to setting an annual budget for books and equipment, YunTech allots funds to optimize and benefits the ratio of students to teachers in a classroom. A budget is also set for programs intended for the improvement of teachers including, Program for Improving and Innovating Teaching, Strengthening the Foundation of Teaching and Researching, Deepening the Industry-academia Link, and the Deep Cultivation Plan of Higher Education. Yuntech also provide the necessary books and equipment to its students and teachers in order to cultivate talents and promote industry-academia cooperation.

Growth rate and books and equipment expenditures from 2016 to 2018

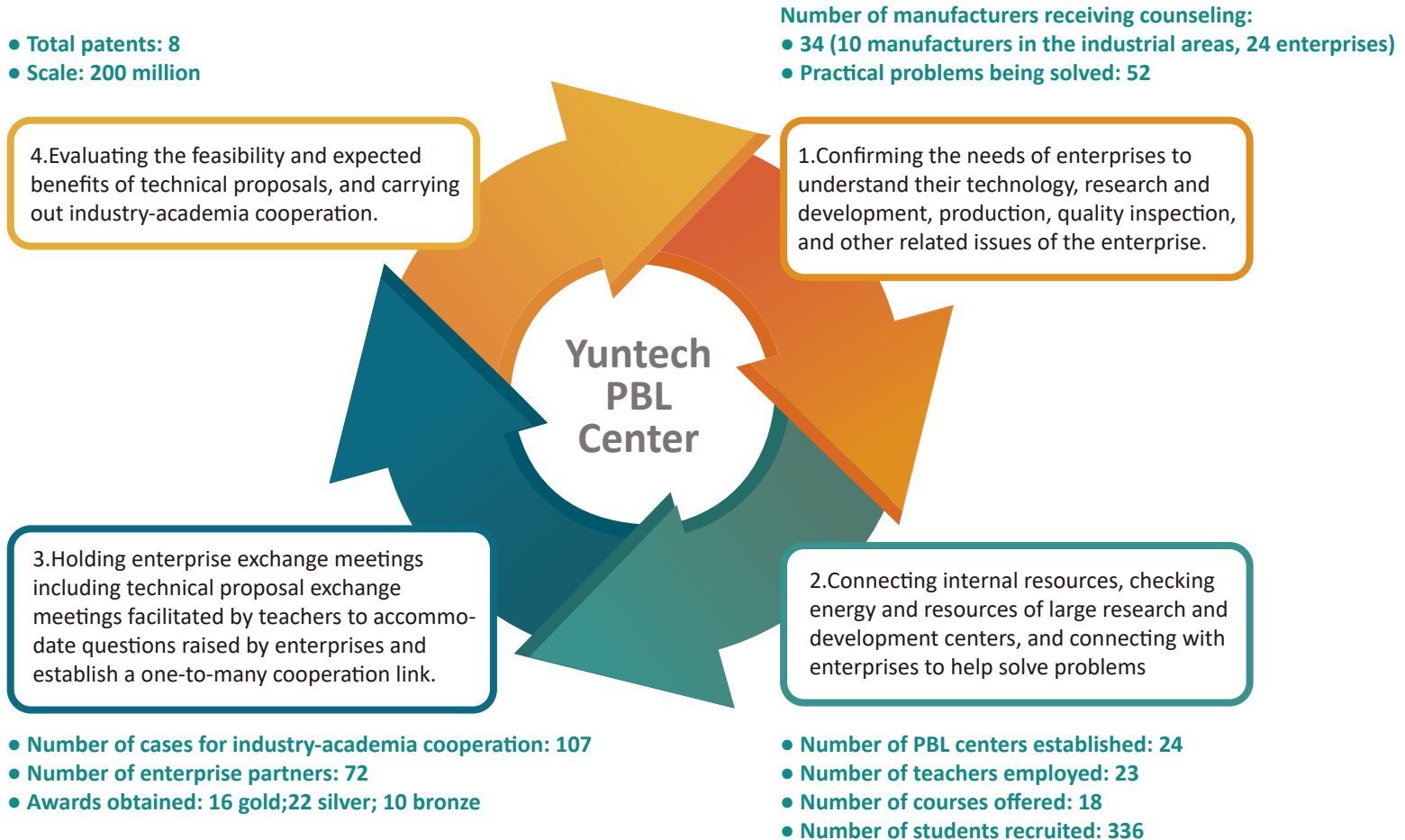
Year	Books and Equipment Expenses (NTD)	Growth Rate
2016	198,515,435	NA
2017	200,646,619	1.07%
2018	267,001,370	33.07%



5-2 /

The Relationship Between Financial Performance and R & D Innovation

YunTech was selected as the Research Center for the Top Ten Special Fields of Global Taiwan by the Ministry of Education's Higher Education Program including :



PBL Center gained NTD 200 million of revenues for Industry-academia Cooperation in 2018

YunTech aspires to achieve its vision of becoming the New University of Science and Technology in 2025, which emphasizes the cultivation of future employment function that aims to provide highly competitive education, pioneer theoretical learning in practice, and establish various professional field centers through numerous mechanisms, such as energy classification of industry-academia research, project family operation, new-type human resource cultivation, and innovation and entrepreneurship guidance. The university has invested more than 31.47 million NTD to ensure the attainment of this goal. At present, 27 PBL research centers have been set up for practical applications, 15 industrial colleges have been formed for industry-academia cooperation, and 34 manufacturers have been partnered with the university's technology centers for education and training of students, development of new technological courses, research and development, increase the demand for industrial talents in the region, contribute to economic development, and promote employment.

Characteristics of PBL Center and New Teaching System of Future College :

- There will be no maladjusted students.
- All teachers shall integrate research into their teaching.
- All business owners or human resource departments are able to find talents suitable to their needs.

YunTech has the technical ability to cultivate and strengthen students' professional knowledge and skills to lead and perform practical and technical researches in the academic circle. Each PBL research center has employed 23 industry-academic project teachers. Through problem-oriented, interest-oriented, and team-oriented courses, students can set up project-based PBL Industry Practice Courses to solve practical industry problems. Among the courses, the Intelligent Identification Industry Service Research Center was selected as the Research Center for the Top Ten Special Fields of Global Taiwan by the Ministry of Education's Higher Education Program. With the aim of developing key technologies for intelligent identification and intelligent medical image-aided diagnosis, YunTech cooperates with various institutions including, Industrial Technology Research Institute, Capital Policy Committee, China Steel Corporation, Cheng Shin Tyre, Unicharm, National Taiwan University Hospital, National Cheng Kung University Hospital, Taichung Veterans General Hospital, and Taipei Tzu Chi Hospital.

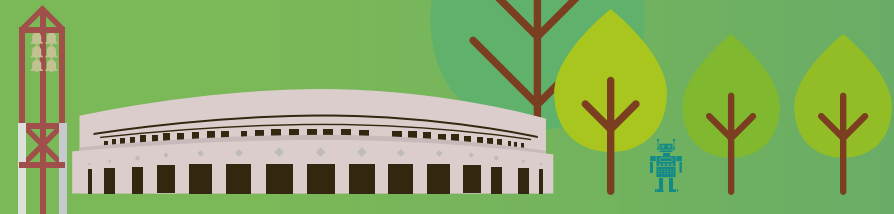


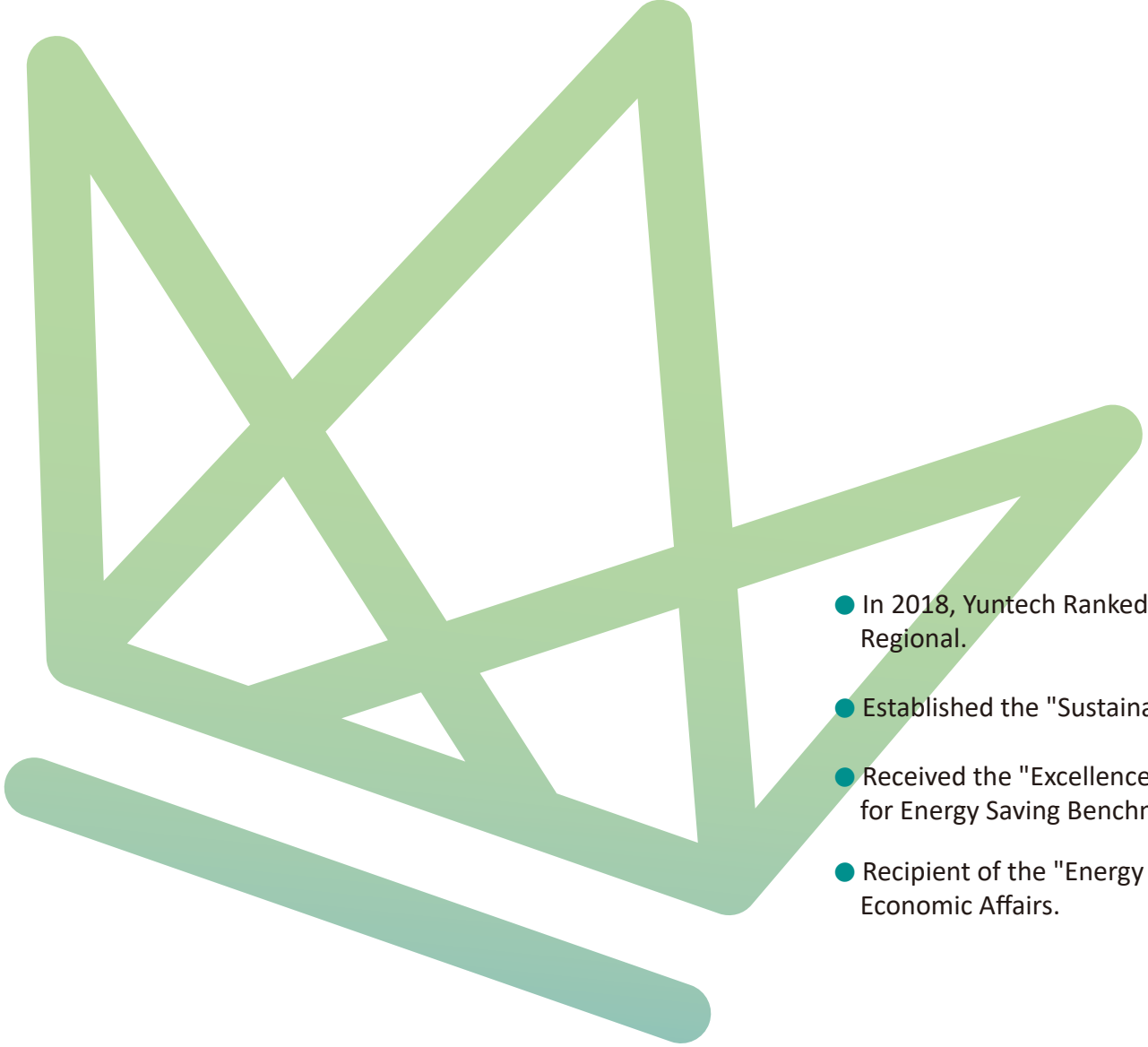
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Environmental Protection Performance

Major issues of this chapter

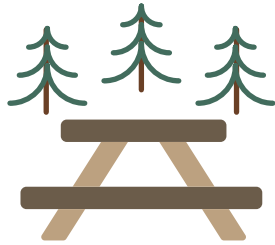
- Energy Management and Energy-Saving Measures
- Environmental Sustainability Management
- Waste and Sewage Management
- Safety and Health Management
- Information Security





- In 2018, Yuntech Ranked 102nd in Greenmetric World University and 31st in Asian Regional.
- Established the "Sustainable Environmental Alliance".
- Received the "Excellence in Energy-Saving Innovation Award" and a "Gold Award" for Energy Saving Benchmark.
- Recipient of the "Energy Saving Star Award" by the Bureau of Energy, Ministry of Economic Affairs.

6-1 / Responses to Climate Change



Assisted Changhua County, Yunlin County, Chiayi County, and Chiayi City in regional disaster control and education in 2018.



Disaster prevention and rescue efforts



Number of education and training courses for disaster prevention and rescue



Number of disaster prevention and rescue exercises



Number of participants who attended in disaster prevention

Built General Education Center in 2018 (107th Academic Year) :

Total Environment Courses : 37

Total Climate Course : 1

Climate crisis characterized by intense climate change and global warming being felt worldwide as melting glaciers, increased flood and drought disasters, rising sea level, and fatal heat wave, pose risks and dangers to human survival. In addition to providing general and professional courses for students to understand climate change issues, the university performs its social responsibility by researching and analyzing disaster potentials from a professional perspective. At present, it assists the local governments and the administrative office of Changhua County, Yunlin County, Chiayi County, and Chiayi City in the compilation of disaster prevention and rescue plans in the county and township level. Moreover, it participates in the disaster prevention and rescue exercises being handled by the government.

1. Remarkable Performance in Assisting Neighboring County and City Governments

Year	Region	Types of Disaster Prevention and Rescue Plan	Number of Disaster Prevention and Rescue Exercise	Number of Education and Training Courses on Disaster Prevention and Rescue	Number of Participants
2016	Changhua County	27	1	5	539
	Yunlin County	0	1	7	100
	Chiayi County	0	0	0	0
	Chiayi City	3	1	6	40
2017	Changhua County	27	1	5	669
	Yunlin County	21	1	5	105
	Chiayi County	0	0	0	0
	Chiayi City	0	1	6	40
2018	Changhua County	27	1	2	682
	Yunlin County	0	1	4	635
	Chiayi County	14	1	5	609
	Chiayi City	1	1	2	1,357
Total		120	10	47	4,776

2. Mechanism and Procedure

The university proactively formulates and assists local governments to sign memorandum of understanding with folk practitioners or groups via methods like extensive survey, in-depth visit, and conference invitation. When dealing with a disaster, the university helps governments to start a memorandum of understanding. In 2017, Research Center for Soil and Water Resources and Natural Disaster Prevention signed 10 memorandums of understanding in total.

3. Disaster Integration with the Government or Organizations, and Disaster Decision-making and Preparations

The Research Center for Soil and Water Resources and Natural Disaster Prevention established the "Disaster Warning Networks" on the official websites of Changhua County, Yunlin County, Chiayi County, and Chiayi City offering typhoon and torrential rain analyses, enabling citizens to be informed immediately at the onset of the typhoon and accelerating emergency work.

4. Five-dimensional General Education Course to Promote Student's Awareness of Sustainability

The university reformed its general education course to target five dimensions namely : humanity, society, aesthetics, industry, and science and technology. Apart from the opening of AI courses focusing on global information evolution and community interaction mode, environmental education and green sustainability such as environment

economy, life exploration, and environmental concerns are integrated into the general education course. All of these promote students' understanding of issues on green industry, sustainability, global climate change and others, and lay their awareness and concept of sustainable development and green economy.

5. International Exchange of Disaster Prevention and Control

In 2017, the university participated in the "Workshop for Scientific Consultation Capacity Strengthening of Disaster Risk Reduction" launched by the International Council of Science (ICSU) and others. The objective of the workshop was to involve institutions in establishing scientific and technological plans for disaster prevention of each country, and to discuss the scientific and technological plans under the Sendai platform for developing climate change adjustment methods for a broader range of stakeholders. The university's scientific and technological efforts for disaster prevention into recent years were summarized in a briefing report and its relevant experiences were shared with the participating countries in the aforementioned workshop. Relevant achievements including establishment of disaster prevention information networks, education and training of early warning technology and warning value judgment, and quantitative analysis of the vulnerable were also shared. The knowledge gained from the workshop was echoed to the local governments to serve as reference in promoting practical disaster prevention work.



6-2 / Energy and Resource Management and Energy-Saving Measures



YunTech's EUI value is better than the government average for 10 consecutive years

YunTech takes pride in upholding environmental protection and sustainable development, using them as indicators of progress. Since 2012, the university has been consistently included in the Greenmetric World University Rankings; the evaluation factors of which cover six major categories including setting and infrastructure, energy and climate change management, waste management, water management, and transportation and education, and 54 minor categories.

Year	Region	Number of Participating Universities	YunTech's Percentile Rank
2016	182	516	35.27
2017	100	619	16.16
2018	102	719	14.19

As one of the eight domestic universities being sponsored by the Green University Union, YunTech continues to make efforts in fulfilling its vision of becoming a sustainable green university, and actively invests in technologies and systems that save energy and reduce carbon footprint. It promotes diversified energy-saving practices and improves the effect of energy saving by constructing high-technology, eco-friendly buildings to develop a green, low-carbon, smart, innovative, and aesthetically pleasing campus with an earth-friendly and sustainable environment.

Through the subsidy provided by the Construction Institute of the Ministry of Interior for three consecutive years and the financial income of the university, YunTech was able to integrate the four aspects namely, energy saving, carbon reduction, safety monitoring, intelligent transportation, and health and comfort, into establishing and managing a safe, comfortable, earth-friendly, and energy-saving campus.

Energy and Resource Management

In response to the government's renewable energy plan, YunTech has comprehensively built a sustainable, green, and clean campus, and formulated energy-saving management plan to create an earth-friendly, energy-saving, and low-carbon environment. It improved its energy-saving infrastructure and facilities and built complete campus electricity monitoring and energy-saving management system. Through strong cooperation with the civil society in promoting energy-saving industries, the university actively uses the idle roof space of its buildings and other building properties for efficient heat insulation and temperature reduction for the top floors. Further, the roof platform of North Campus is being rented by manufacturers of solar photovoltaic power generation system with installed capacity of 495.88kWp. From 2013 to 2018, the total intensity reached 3.2 million kilowatt-hours with an average annual solar power capacity of about 520, 199 kilowatt-hours. The solar photovoltaic system installed on the roof effectively uses the idle space, provides the university with extra income, and allows heat insulation and temperature reduction on the top floor, which reduced energy consumption of indoor air-conditioning and saved energy and electricity expenses to fulfill the vision of energy security, green economy and environmental sustainability.



Year	Solar Power Intensity
2016	426,240
2017	491,120
2018	472,480



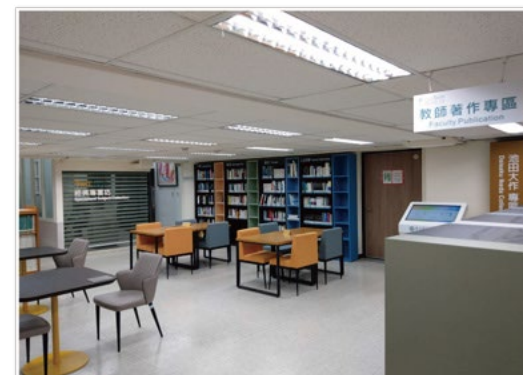
YunTech' s Energy Use Intensity (EUI) from 2016 to 2018

Year	Energy Use Intensity (kilowatt-hour)	Comparison with Previous Year		EUI Value
		Energy Saving Intensity	Energy Saving Rate%	
2016	18,384,800	NA	NA	68.00
2017	18,280,800	104,000	0.57	67.43
2018	17,989,600	291,200	1.59	62.71

The university used 17,989,600 kilowatt-hours of energy in 2018, which was 291,200 kilowatt-hours lower than the previous year. Moreover, its growth-rate of energy saving was 1.59%. YunTech's energy use intensity (EUI) has been decreasing annually in the past three years, and it is assumed that it will continue to drop in the years to come.

Initially, the south facade of the Third Building of College of Engineering does not have any cover to protect it from the sun; thus, the air inside the building was sultry resulting in increased energy consumption of the air conditioning. To solve this, YunTech installed continuous belt horizontal blinds from the third to the tenth floors of the south façade, providing shade and potentially decreasing air temperature inside the building. The maximum temperature difference reached 5.7 degrees when the blinds were installed, which would annually save 95,000 kilowatt-hours of energy and 285,000 RMB of energy cost, and would reduce carbon dioxide (CO₂) emission by 50.6 metric tons.

For adequate lighting, the university library uses a large number of lamps, which has a weekly opening time of 98 hours. To further improve the lighting quality and induce more energy-saving benefits, the 2,347 T8 traditional lamps with 40W and 20W used in the library and Office of Physical Education were replaced by T5 high-efficiency energy-saving lamps of 14W and 28W. This resulted in an annual energy saving of approximately 280,000 kilowatt-hours, annual energy cost reduction of approximately 80,000 RMB, and annual CO₂ emission reduction of about 149 metric tons.



To solve the problem with glare without endangering the environment, the 96 streetlights inside the university utilizing 250W outdoor mercury lamps were changed and replaced by 150W metal halide street lamp, which reduced the total energy consumption from 24,000w to 14,400w. Based on the 12-hour lighting per day, the monthly energy intensity was reduced from 8,640 kilowatt-hours to 5,184 kilowatt-hours with an effective energy saving of 40%. It was estimated that annually, the university would save 42,000 kilowatt-hours of energy and 126,000 RMB of energy cost, and would reduce its CO₂ emission by 22.4 metric tons.

YunTech's university-wide energy consumption in 2018 was 66,539.28 GJ. In the past three years, the total energy consumption has decreased tremendously which indicates that the university is successful in its efforts to improve energy management and energy saving, and reduce CO2 emissions.

Energy Saving within the Organization from 2016 to 2018

Year	Primary Energy		Secondary Energy		Renewable Energy		Total Energy Intensity	
	Energy Intensity (GJ)	Rate %	Energy Intensity (GJ)	Rate %	Energy Intensity (GJ)	Rate %	Energy Intensity (GJ)	Rate %
2016	1,924.60	2.83	66,185.28	97.17	0.00	0.00	68,109.88	100.00
2017	1,706.20	2.53	65,810.88	97.47	0.00	0.00	67,517.08	100.00
2018	1,776.72	2.67	64,762.56	97.33	0.00	0.00	66,539.28	100.00

Primary Energy; gasoline, diesel, gas; secondary energy: electricity; renewable energy: solar energy

Gasoline, diesel: calculation mode: Liter (L) * caloric value kca/L* 4186

Electricity: 1 Kwh= 3,600,600 KJ

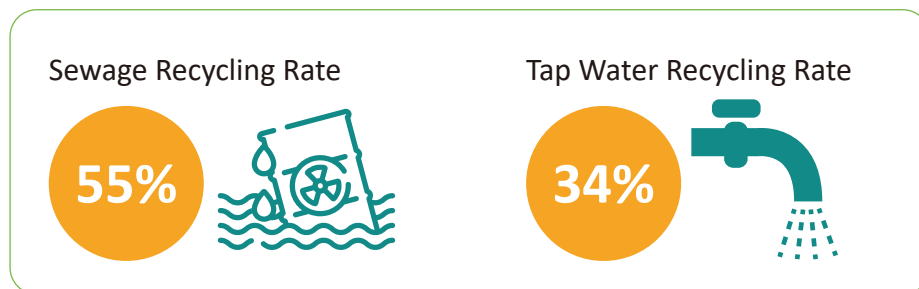
Energy Control and Management

YunTech's original energy contractual capacity was 5,300kw, and its optimal capacity was 4,488kw after evaluation. To retain loading and increase elasticity, it was reduced to 4,600 kw. Also, after carrying-out check and repair to the existing electricity monitoring system, the contracted capacity was further reduced. The unloading function of the central air-conditioning of the library, administrative building, and auditorium, which have the highest energy demand, were controlled. Currently, the university is constantly strengthening its electricity monitoring system and energy management.

Construction of Safe Energy Environment

Since the existing high-voltage substation equipment is old, consumes a large amount of energy, does not meet the actual unit energy demand, the university found it necessary to adjust the energy configuration and improve the supply voltage from 11.4kv to 22.8kv for ensure energy safety. The voltage changes in the substations were carried out to avoid load loss of layered transformation and old transformers, which greatly reduced the loss to one quarter of the original. Also, high-efficiency oil immersed transformer was adopted to fit into the annual energy demand of each building. Improved efficiency of the high-voltage substation had an energy saving of 550,000 kwh and prevented 500,000 kilowatt hours of copper loss. It was estimated that it would reduce the university's annual energy cost by 1.65 million RMB and CO2 emissions by 293 metric tons.

6-3 / Environment Management Performance



Campus Environment Policy

With limited global resource and the demand for sustainable development, YunTech upholds its motto of "sincerity, honor, perseverance, and originality". Based on its educational objective and national environmental protection policy, and the principles of humanity and science and technology, all teaching and administrative staff and students are expected to work together and comply with all environmental protection laws and regulations. All individuals are expected to protect the environment, reduce pollution, save energy, and reduce carbon footprint. The university makes full use of its research resources to promote environmental protection techniques and green technology, so as to achieve a sustainable campus with "blue sky, green land, and clean water" while performing ecological conservation and efficient use of resources. The campus environmental policy is as follows :

I. Environmental Life Education

The university promotes and popularizes environmental life education, improves university members' understanding of relevant environmental policies such as "environmental protection" and "sustainable operation", and strengthens environmental awareness and sense of mission for environmental protection.

II. Energy-saving and Carbon Reduction for a Cooler Earth

In line with the policies of the Environmental Protection Administration, the university advocates the concept of energy conservation and carbon reduction. By integrating environmental protection into the daily life of its stakeholders through purchase of green products and equipment, the university improves its energy use and imparts measures of energy conservation and carbon reduction to collectively achieve a "Cool Earth".

III. Resource Recycling

Adhering to the concept of "sustainability", the university carry-out reduction from the source, makes good use of all recyclable resources to reduce waste, and utilizes social resources with incentives based on laws and regulations, so that centralized cleaning process of recyclable resources is more convenient.

IV. Pollution Control Implementation

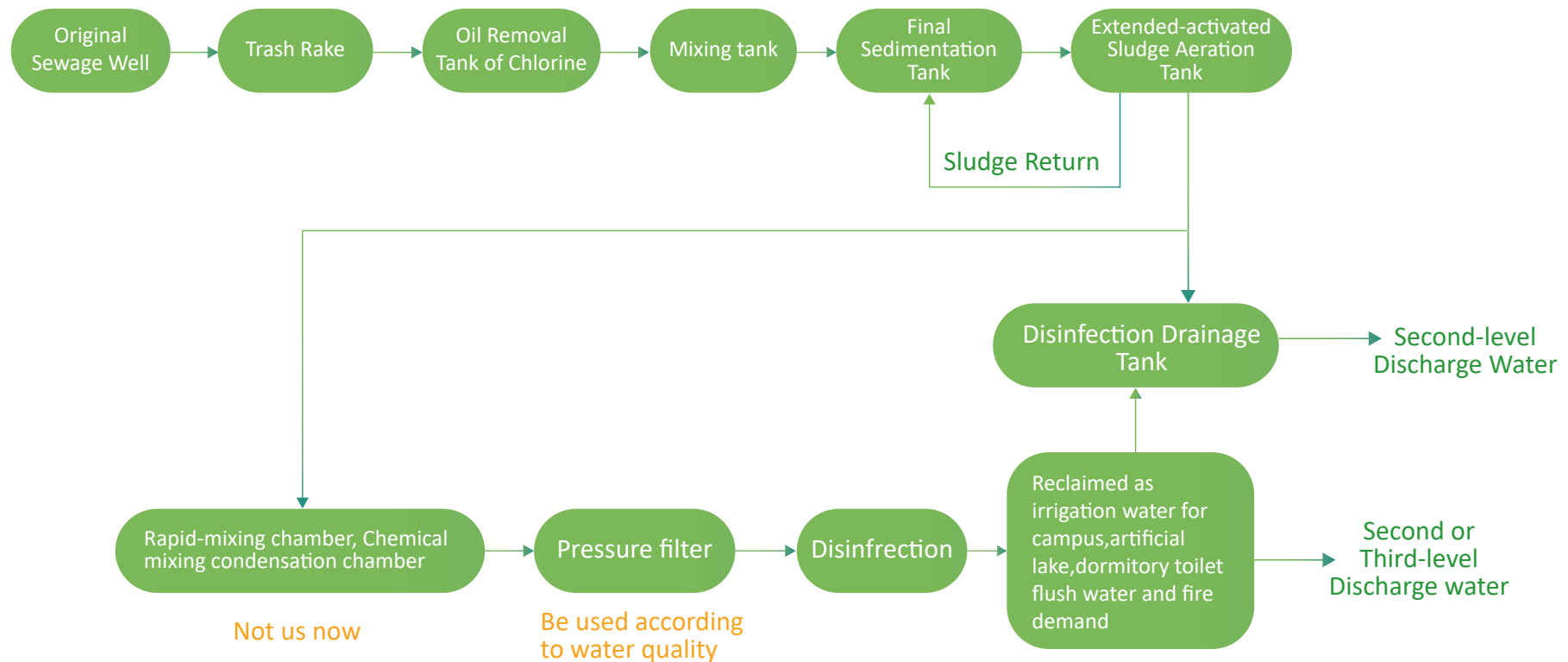
To prevent the harmful impact of vectors, chemical substances, and waste on water and air inside the campus and prevent possible accidental social epidemics, in addition to notification and prevention and control measures during weekdays, the university has established its first line of defense to reduce environmental impact, and offer appropriate response control and follow-up treatment for a healthy and secure environment for all university members.

V. Sustainable Self-criticism and Improvement

The university encourages all its stakeholders to participate in their efforts to protect the environment and welcomes suggestions of all parties which are all integrated and reviewed during relevant self-assessment. Consultation channels are established for environmental policies and related technology exchanges, and meetings are held regularly for efficient communication between faculty and students, allowing proper evaluation of the university's performance in terms of its environmental management system.

Treatment of Sewage and Recycling Water

Since the establishment of YunTech, the university has effectively planned its sewage collection pipeline system and set a sewage treatment plant, making itself the first campus to implement water recycling throughout Taiwan. Its maximum daily treatment capacity is approximately 1,500 tons. Biological extended aeration is used to treat domestic sewage produced by teachers and students to ensure that the water quality to be drained into the Bajiao River Basin meets the discharge water standard. In addition, the water recycling system is being used for campus' landscape, spray pool, fire-fighting, road moisturizing, hydrophilic facilities, and watering plants and trees within the campus.



Total Volume of Sewage and Recycled Sewage from 2016 to 2018

Year	Total Sewage Volum (m3)	Recycled Sewage Volume (m3)	Discharge Sewage Volume (m3)	Sewage Recycling Rate %
2016	128,129	72,367	55,762	56.48
2017	210,037	111,630	98,407	53.15
2018	196,397	108,749	87,648	55.33

Total Volume of Tap Water and Recycled Tap Water from 2016 to 2018

Year	Total Tap Water Volume (m3)	Recycled Tap Water Volume (m3)	Recycling Rate %
2016	293,987	72,367	24.62
2017	339,940	111,630	32.84
2018	318,601	108,749	34.13

Discharge Water Quality Inspection from 2016 to 2018

Inspection Date	COD(mg/L)	BOD(mg/L)	SS(mg/L)
20161212	34.7	8.6	9.8
20170612	29.7	9.3	8.6
20171212	33.1	8.8	8.9
20180612	30.5	18.1	8.9
20181212	28.3	9.3	9.7

*Discharge Water Standard COD<100mg/L、BOD<30mg/L、SS<30mg/L

Waste Disposal

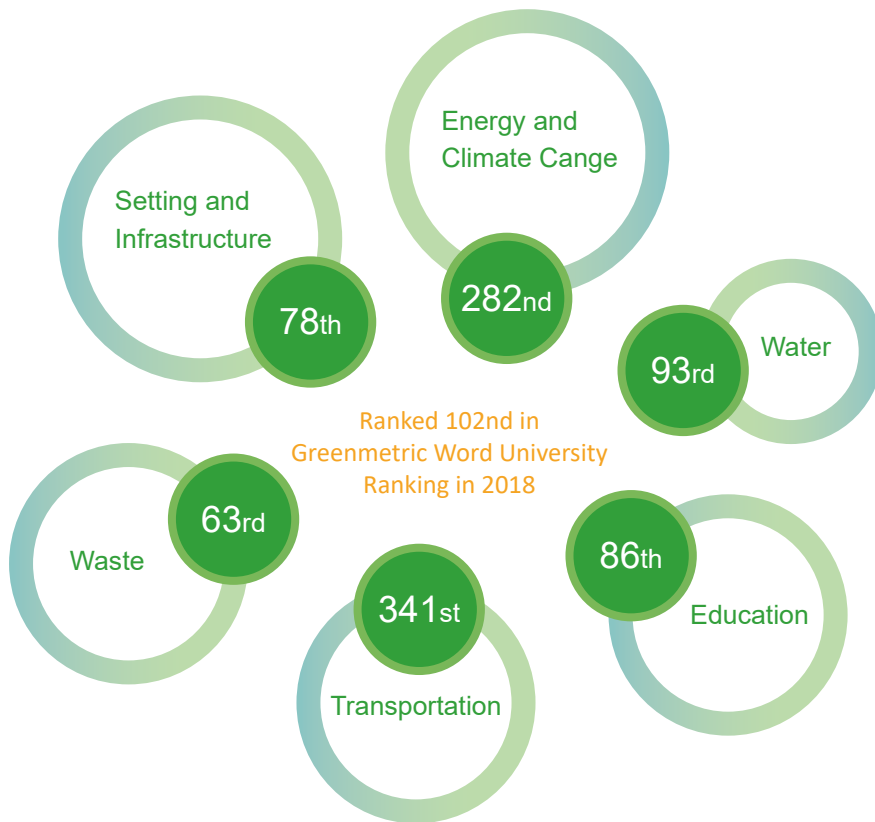
To manage toxic chemicals and hazardous wastes and prevent environmental pollution for the safety of university members, YunTech follows the "Key Points on Toxic Chemicals and Harmful Wastes Management" to properly classify, store, and remove waste materials based on "Methods and Facilities for Storage and Removal of Business Wastes" to prevent environmental pollution limiting the possible health risks it may bring to teachers and students. The treatment of university laboratory waste is classified and stored in accordance with the "Temporary Classification Standard for Laboratory Waste Liquid" issued by the Ministry of Education, which is then entrusted to legal public/private waste treatment agencies.



Total Weight of Waste from 2016 to 2018 (Unit: ton)

Year	Harmful	Harmless	Resource Recycling
2016	2.40	404.87	137.97
2017	7.32	402.43	129.26
2018	4.67	413.64	139.58
Way of Treatment	Chemical treatment or incineration	Incineration	Recycling

6-4 / Green Campus



With close interaction with urban growth, the university drives and changes the surrounding environment, interacts with the local population, and promotes the role of social culture in protecting the environment. Campus community is an inevitable part of development because the campus is open to the public and bears the responsibility of social education and urban infrastructure.

YunTech has comprehensively built a sustainable, green, and clean campus, and spares no effort in promoting energy conservation and carbon reduction. Currently, it is transitioning towards its vision of sustainable green university. Through the university's earth-friendly characteristics, it integrates the concept of clean and green sustainability using scientific and technological innovation. It is constantly developing itself to become a model school that conserves water and energy, values the earth, and reduces carbon emission.



Green Building

Four of the campus buildings namely, Third Building of College of Management, Third Building of College of Design, Fifth Building of College of Engineering, and College of Production, Research and Development Building have obtained the seal of green building. These buildings have adopted an envelope structure, have efficient heating and air conditioning system, and have established an air cooling system following wind direction for natural ventilation to reduce the amount of energy being used.

The College of Production, **Research and Development Building has been honored with a "diamond-level candidate green building" and "smart building" certificate.** "Green" buildings use intelligent high-tech technology, materials, and products to make it safer, healthier, more convenient, and comfortable for its users while saving energy,

reducing carbon emission, and adhering to environmental friendly measures. These buildings also provide space for internship and physical training for field courses like "Green Technology" and "Clean Green Sustainability Technology".



The Library and School History Museum occupy more than 5000 square meters. It is a green building with nine floors above the ground and one floor below the ground. It covers 1,500 seats for reading and discussion, with a total collection of more than 1.33 million Chinese and foreign books, periodicals, e-books, electronic journals, databases, and multimedia digital resources. In response to the development trend of digital information and AI technology, it is committed to promoting intelligent campus construction, and building a multi-digital service platform that integrates electronic resources. It plans to build the YunTech reading website, which shall be a joint sharing platform for book resources, digital exhibition area, digital reading area, real-time information service system, wireless charging area, e-book reading and learning area offering free lending services for reading vehicles like iPads and tablets, interactive digital teaching room, 3D multi-media teaching room, and model YouTube browsing platform.



Green planting on the outer wall of the library

Reduction of Disposable Tableware

For waste reduction, energy conservation, carbon reduction, environmental protection, and promotion of health of its staff, students and visiting guests, YunTech promotes the reduction of disposable tableware in the catering sector. Disposable tableware is prohibited and reduced as much as possible when providing catering services. Restaurants renting inside the university are likewise prohibited to use disposable plates, glasses, cutleries and the likes as stated in their contract. At present, there are three outsourced restaurants, all of which use reusable tableware for their services.

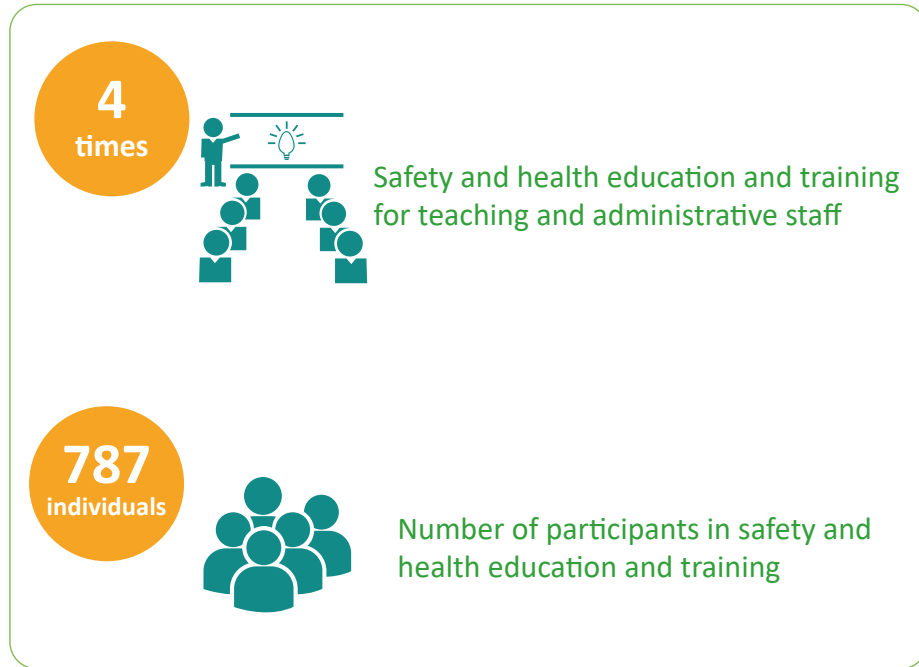


Garbage Reduction

To prevent environmental pollution and promote garbage reduction and resource recycling, the university formulated the "Key Points on Waste Reduction and Recycling Management" and "Key Points on Toxic Chemicals and Harmful Wastes Management" of the National Yunlin University of Science and Technology (YunTech). It adopted the non-landing garbage policy to strengthen garbage classification and recycling, and entrusted qualified environmental protection company to clean up and dispose trash properly.

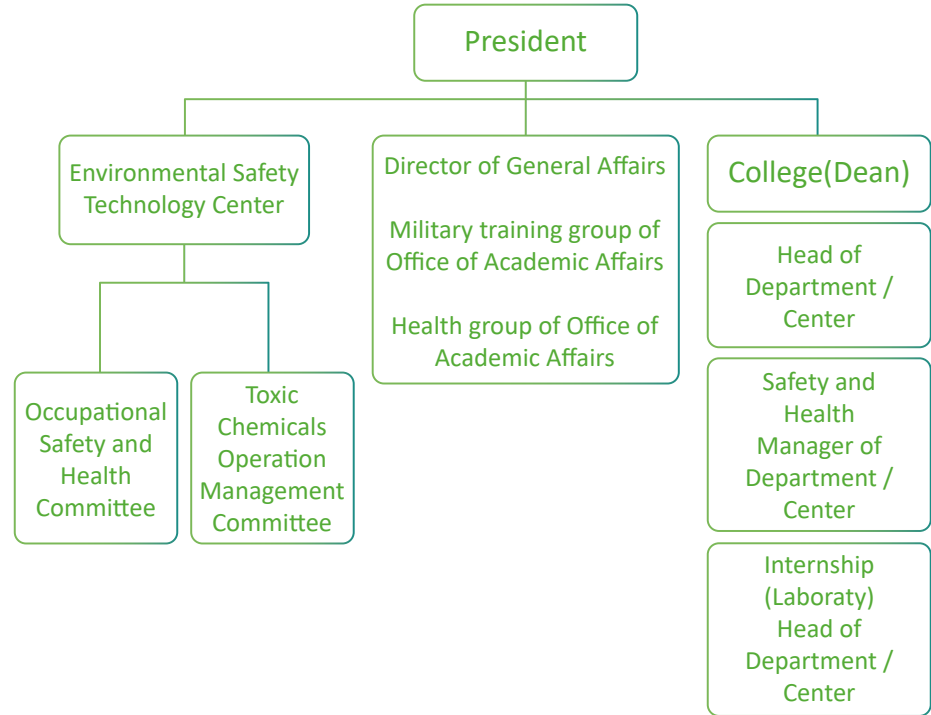


6-5 / Campus Safety and Health



For the safety and health of the university's teaching and administrative staff working in laboratories, research rooms, internship factories, and potentially hazardous areas, and to prevent occupation-related accidents, in accordance with Article 12-1, Regulations for Occupational Safety and Health, the university established the "Regulations for Occupational Safety and Health of the National Yunlin University of Science and Technology", and set-up the Occupational Safety and Health Committee and Environmental Safety Technology Center based on Article 23 of the Occupational Safety and Health Law.

Environmental Safety Management System of YunTech



YunTech's Occupational Safety and Health Committee consists of 19 members, including the university President, Dean of College of Engineering, Dean of College of Design, Director of General Affairs, head of the Research Department, Director of Environment, Safety and Health, Director of Chemical and Materials Engineering, Director of Accounting and Statistics Office, Director of the Personnel Office, Leader of Health Education Group, Director of Environmental Safety Technology Center, Leader of Safety and Health Group, and 7 labor representatives with a proportion of 36.84%.

The second Wednesday of each semester has been set as the "Education and Training Day for Safety and Health" for new and on-the-job university members. The number of training sessions

depends on the actual situation. By advocating education, a culture of safety and health is created, and relevant concepts and skills of members are improved, which would help enhance the university's disaster prevention and response. The Environment Safety Technology Center has conducted irregular patrol inspection for laboratories affiliated to each department, and required audited units to improve the results of the university's safety and health performance. This ensures the safety and health of teachers and students and reduces pollution within the campus.

Energy Saving within the Organization from 2016 to 2018

Year	Frequency	Number of Participants
2016	3	581
2017	3	564
2018	4	787



Responsibilities and Obligations of Teaching and Administrative staff and Students :

- Abide by the safety and health work rules in the workplace and by the laws of Environment, Safety and Health Department.
- Establish standard operation procedures for equipment, and regularly inspect and check equipment or facilities.
- Accept general and special physical examination and health examination, and follow the recommendations of examination results.
- Accept on-site health services for medical staff.
- Participate in safety and health education and training, as well as in general hazards education and training.
- Assist new staff in understanding operation procedures and in using safety and health equipment and facilities.
- In case of casualties, properly handle the scene and assist in the investigation of occupation-related accidents.
- Inspect the work environment and equipment before operation and in case of any abnormality, make adjustments immediately and report to teachers or person in charge of the site.
- Regularly check, maintain and replace personal protective equipment, and keep the workplace clean and organized.

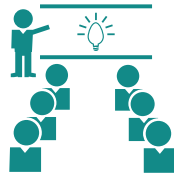
6-6 / Information Security



Units that Passed the Verification of Safety Management Standard of Capital Communication

Unit that Passed the Verification of Personal Data Management Standard

23 times



Number of Personnel Conducting Information Security and Free Software Education and Training

0 case



Number of Personal Data Leakage Case

621 people



Number of Participants in Education and Training

0 case



Number of Capital Security Protection or Threat Attack Event (Core System)

Units that Passed the Verification Scope of the Safety Management Standard of Capital Communication	Units that Passed the Verification Scope of Personal Data Management Standard
Information Maintenance and Operation Unit of the Information Technology Services Center	Personnel Office Unit
Student Learning Process System	Counseling Center
Electronic Document System	Information Technology Services Center
School Global Information Network Maintenance Operation	Institutional Research and Planning Center
	Life Counseling Group
	Integrated Business Group

Information Security Policy

In order to establish a secure and reliable information environment, guarantee confidentiality, availability, and integrity of assets, and ensure proper placement of information and performance of feasible and effective information security practices, the information technology services center shall take appropriate control measures to prevent internal and external intentional or accidental threats. Also, the information technology services center shall remain regularly updated with information security laws and regulations and continue to hold course training to effectively carry out accurate classification of information security events and possible impact range and loss assessment, which will enable them to notify the security administration in the event of an attack and improve the campus' information security. Based on previously performed emergency control measures, corrective and preventive actions have been shown to effectively avoid information security incidents.

In order to conform to the information security management standard, the contact person of capital security and personal asset protection assigned by all units of the school shall participate in the audit standard education and training, understand the concept and implementation method of the information security management system, assist in assigning internal personnel for the implementation of the rules and regulations of the capital security standards and records, cooperate with on-site inspection and audit, and help reduce information risk to an acceptable level. Other personnel in the units shall receive information security education and training, implement information security protection measures, and carry out self-inspection for information security at regular intervals. Each semester, the information security audit team of the information technology services center shall formulate and execute an audit plan

for conducting on-the-spot visits to monitor each unit's adherence to the rules and regulations of information security standard, in order to improve any security deficiencies and establish a safer and more reliable information security environment.

Purpose :

- To implement the safety management policy of capital communication.
- To import information security management system (ISMS).
- To train the information personnel for professional skills in capital communication.
- To strengthen the security environment and the capacity of information security emergency response of capital communication.
- To achieve the information security management policy measurement indicators.

Target :

The information security policy aims to maintain confidentiality, integrity, and availability of the information assets of the information technology services center, and protect the privacy of users' data.

- To protect the security of the business services of the center and ensure that only the authorized personnel will have access to information to guarantee its confidentiality.
- To protect the security of the business services of the center and avoid unauthorized modification of information to ensure its correctness and integrity.

- To establish a sustainable operation plan for the business services of the center to ensure its continuous operation.

- To ensure that the implementation of all business services of the school will meet the requirements of relevant laws and regulations.

Scope of Information Security Management :

- Personal Computer Information Security Rules
- Server Information Security Management
- Asset (Personal Asset) Inventory and Business Process
- Personal Data Protection Management
- Communication and Operation Management
- Entity and Environmental Safety Management
- Outsourcing Manufacturer Management
- Information Security Incident Handling
- Regulatory Compliance

Handling Process of Abnormal Network Events / Intellectual Property Rights Infringement :

- After receiving a notification of information security incident from the Ministry of Education, district network center, or other organization, the information technology services center will immediately control the abnormal network connection of hosts.

- In accordance with the regulations of Notification and Emergency Operation Process of the National Capital Communication Safety Meeting, the processing schedule of the event based on its level of impact is follows :

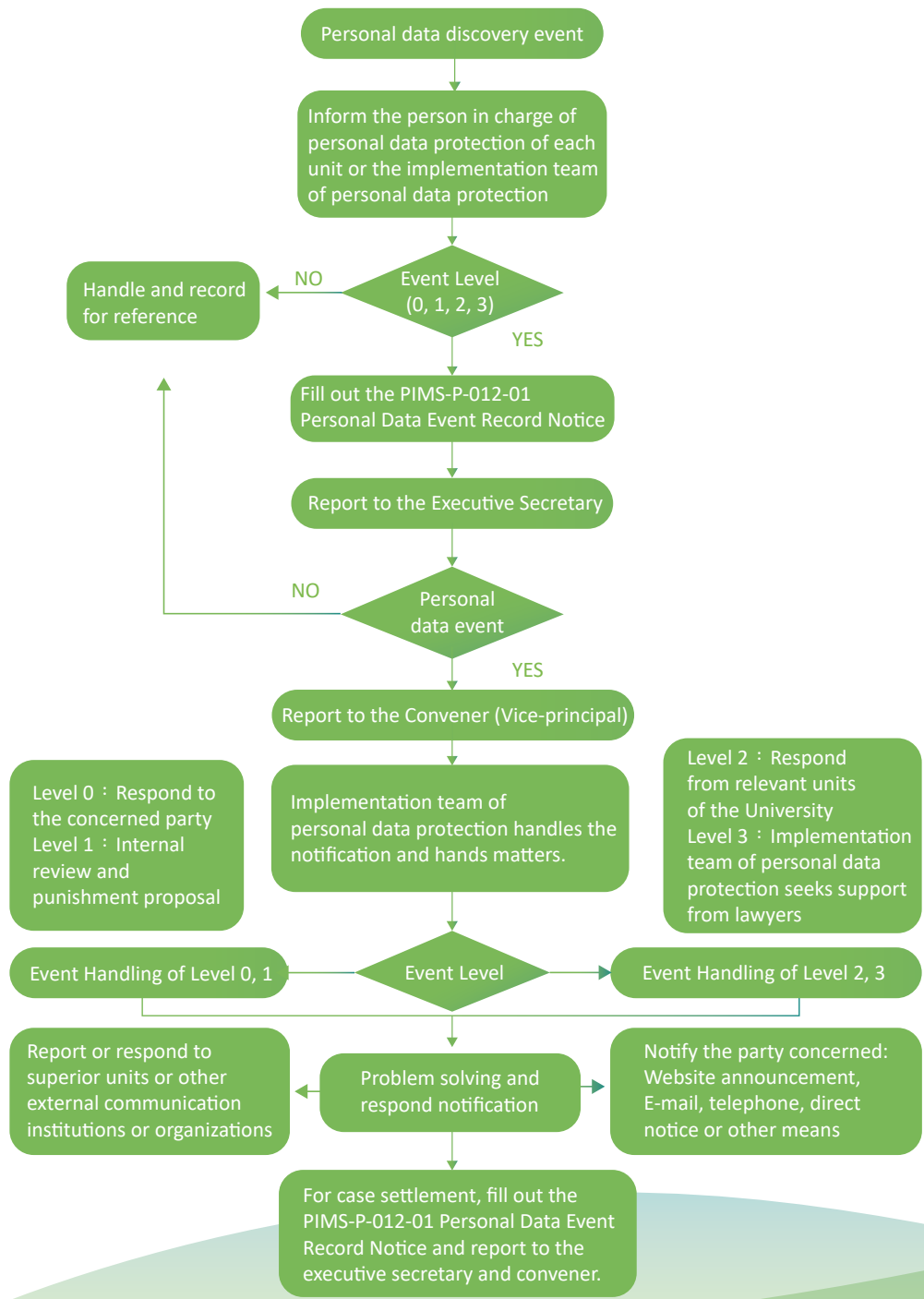
- i. For Level 4 and Level 3 events : the information technology services center shall recover or complete the damage control within 36 hours after the event is found.

- ii. For Level 2 and Level 1 events : the information technology services center shall recover or complete the damage control within 72 hours after the event is found.

- Handling Methods of All Sources of Reports :

- i. For those reported via the Internet, the abuse information security website (<http://abuse.yuntech.edu.tw>) shall be provided.

- ii. For those reported via E-mail, they shall reply to the abuse account of our school through E-mail.



教育機構資安驗證中心
教育體系資通安全暨個人資料管理規範驗證證書



證書編號：IIS00016

茲證明
國立雲林科技大學資訊中心
地址：雲林縣斗六市大學路三段 123 號

經評鑑結果為符合教育體系資通安全暨個人資料管理規範(2016年版)，通過資通安全管理規範驗證，予以認可登錄範圍如下：國立雲林科技大學資訊中心資訊機房維護、學生學習歷程系統、電子公文系統、學校全球資訊網維護作業。

並與適用性聲明書(文件編號：YUNTECH-ISMS-A-002，版次：2.0)相符合。

原始登錄日期：中華民國 098 年 11 月 16 日
發證日期：中華民國 107 年 10 月 24 日
有效日期：中華民國 110 年 10 月 24 日
第一次追查稽核：中華民國 108 年 10 月 14 日
第二次追查稽核：中華民國 109 年 10 月 14 日
重新驗證：中華民國 110 年 10 月 14 日



教育機構資安驗證中心
教育體系資通安全暨個人資料管理規範驗證證書



證書編號：PI800003

茲證明
國立雲林科技大學
地址：雲林縣斗六市大學路三段 123 號

經評鑑結果為符合教育體系資通安全暨個人資料管理規範(2016年版)，通過個人資料管理規範驗證，予以認可登錄範圍如下：國立雲林科技大學人事室、諮商輔導中心、資訊中心、校務發展中心、生活輔導組、綜合業務組。

原始登錄日期：中華民國 107 年 10 月 31 日
發證日期：中華民國 107 年 10 月 31 日
有效日期：中華民國 110 年 10 月 31 日
第一次追查稽核：中華民國 108 年 10 月 21 日
第二次追查稽核：中華民國 109 年 10 月 21 日
重新驗證：中華民國 110 年 10 月 21 日





6-7 / Reuse of Scrapped Assets

As the recipient of the "Excellent Award" for being the top "green university" from Taiwan Green University Alliance and the "Excellent Energy-Saving Innovation Award" from the Energy Bureau of the Ministry of Economy in 2017, the university promises to continue to improve its efforts in maintaining a sustainable campus by upholding the principles of energy conservation, carbon reduction, and resource reuse, and by efficiently utilizing all resources to the best of their value. We adhere to established procedures and relevant mechanisms to facilitate the reuse of scrapped assets to still give them innovation value in accordance with the provisions of Item 4, Paragraph 1 of Article 66 of the State Owned Public Property Management Manual and Item 3, Paragraph 1 of Article 23 of the Property Management Measures of the University.

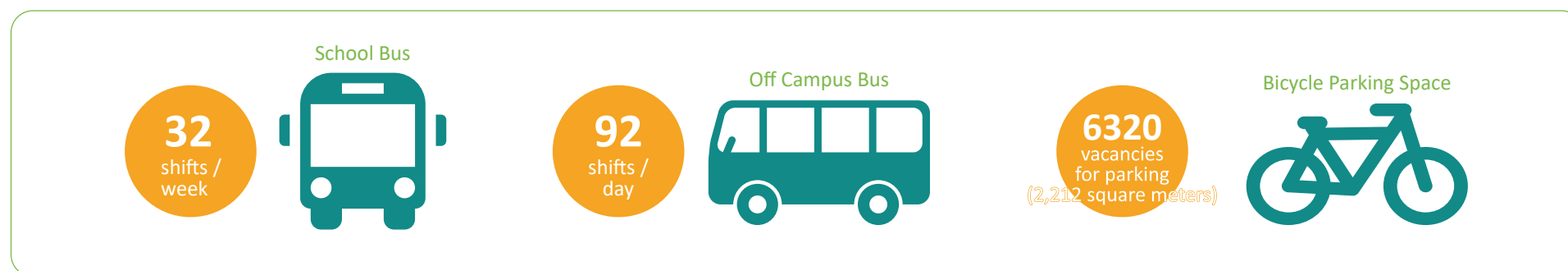
YunTech's scrapped properties are handled through selling, reusing, donating, exchanging, destroying or discarding. If the scrapped equipment still has "use value", they are categorized and donated as "priceless gifts" in order to avoid usable materials from going to waste. This is far more meaningful in achieving the goal of protecting the environment than discarding, selling wastes, and cleaning up.

Items Donated as Priceless Gift in 2018

Equipment	Quantity	Handling Method
Separated Air Conditioner	34	<ul style="list-style-type: none"> The air conditioner was donated to elementary schools in rural areas of Yunlin county to continue to be used as an air conditioning system for students' activity space which facilitates the promotion of various activities and increase learning efficiency. Furniture and teaching equipment were donated to the junior high schools within the jurisdiction of Yunlin county for their perusal to help enrich students' learning and improve teachers' office equipment for cultivating and enriching students' education.
Office Table	1	
Table Side Cabinet	8	
Swivel Chair	23	
Fixed Chair	3	
Drawing Cabinet	2	
Drinking Fountain	1	
Computer Desk	16	
Cupboard	10	
Projector	1	



6-8 / Transportation



The annual carbon dioxide emissions of land transportation vehicles account for about 16% of the global carbon dioxide emissions. However, the fuel cost of electric vehicles accounts for 11.11% of gasoline vehicles and 14.29% of hybrid vehicles, and the fuel cost of electric buses accounts for 7.69% of diesel vehicles. Because of this trend, the automobile industry is gradually moving toward the development of electric vehicles. With the establishment of energy security and sustainable development, countries around the world pay more and more attention to energy conservation and carbon reduction. **To continue its mission of being a sustainable campus, YunTech responds to environmental problems such as global warming, that has seriously caused changes in the earth's environment, by adhering to the concept of cross domain cooperation between engineering and design.** We have completed a prototype of an electric vehicle and have started to participate in green energy design, energy conservation, and carbon reduction. At present, 1 hybrid vehicle is being used as a business vehicle inside the school premises. The number of business vehicles will be increased in the future according to the situation. The responsibility of environmental protection will be well accounted for.

The creativity of YunTech teachers and students played a huge role in the development of a solar electric garden car and a solar electric bicycle that are now being utilized within the premises of the school to reduce fuel use. The solar electric bicycle has already been applied for patent.

The overall planning of YunTech campus is near perfect. In order to create a sustainable, green, energy-saving and low-carbon environment, and promote the use of bicycles and pedestrian trails, a complete bicycle and pedestrian system has been built. In addition, with the layout of the main roads and buildings in the school, a large number of public transport vehicles such as school buses and off campus buses have been provided for the good use of teachers and students at school. In order to improve the sustainable green transportation environment for faculty and students and increase the percentage of permanent commuting, transport vehicles were provided for teachers and students in 2018. Bicycle lanes and pedestrian trails were also set up for public use. In addition, the university will coordinate with local government and bus operators to set up bus service stations around the campus to improve the utilization rate of sustainable green transportation.



6-9 / Compliance with Regulations



No violation of environmental regulation in our school in 2018

In order to establish a high-quality campus environment, support the development of the school, effectively integrate resources, and establish a sustainable development mechanism, YunTech has set up the Campus Planning Committee. **Its main tasks are as follows :**

- Participate in the overall campus environment planning.
- Formulate and implement campus environment design standard and overall campus land use.
- Participate in the planning of campus space.
- Provide guidance for campus space development demand, construction concept, additional construction and reconstruction, sustainable development and overall business plan.
- Discuss and make suggestions during the review of major project plans in the campus and related problems in the construction process.
- Oversee the overall image and landscape planning of campus environment.

- Provide guidance for the overall environment development of campus community and the overall construction of nearby community.

- Provide guidance on the participation mechanism of campus environment construction.

Composition of Campus Planning Committee :

- The President shall concurrently act as the Convener. Another seven to thirteen members shall be appointed by the convener. The members shall be individuals with relevant expertise in campus construction or construction outside the campus.

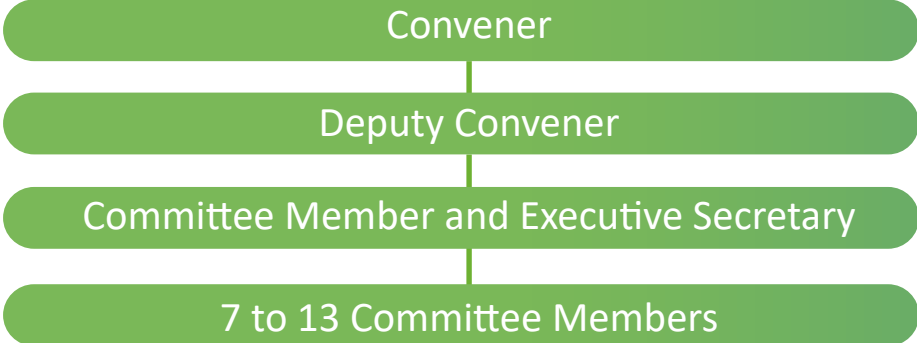
- A Deputy Convener shall be selected by the president among the members.

- The Convener shall appoint a Member and an Executive Secretary who shall have relevant experience and expertise in school administrative work. They shall be responsible for administrative coordination, and work-plan formulation and implementation.

To achieve its goal of protecting the environment, YunTech's Environmental Safety Technology Center and other related organizations have jointly set up a number of environmental protection and public security police regulations. The regulations aim to effectively improve the environmental quality of the campus and ensure the planning, management, investigation, research and development, and consultation services for occupational safety and health and environmental protection. In addition, the Office of the General Affairs also formulated relevant laws and regulations for the sustainable development of the campus, such as key regulations for setting up the Campus Disaster Prevention and Rescue Committee and the Campus Planning Committee, and operation procedures for flood and typhoon prevention measures.

In view of the importance of sustainable development, our school has established the Sustainability and Social Practice Research Center in 2019 in order to expand its efforts in achieving the 17 sustainable development goals of the United Nations.

Organization Chart of Campus Planning Committee







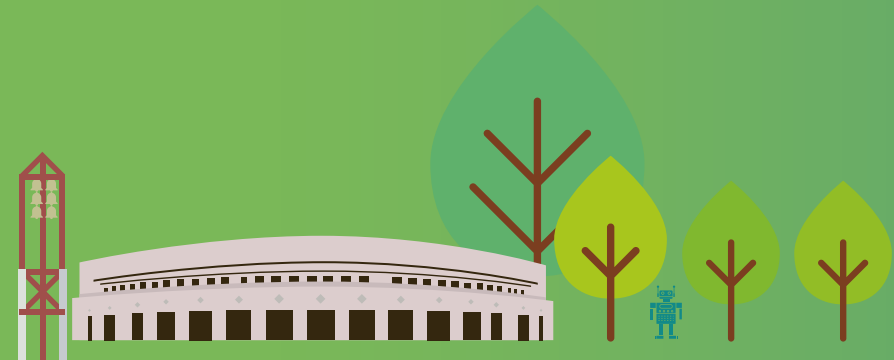


07 /

Social Integration and Placemaking

Major issues of this chapter

- Social Integration & Placemaking





YunTech was granted a total of NTD 20.9 million subsidy, the highest in Taiwan, from the Ministry of Interior for Innovative Demonstration Projects of Sustainable Intelligent Communities.



University Social Responsibility Subsidy Schemes :

- **The Restoration of Rural Vitality and Establishment of Cultural Confidence Scheme.**
- **The Social Practice Scheme with the Tsou Indigenous People of the Laiji Tribe :**

Giving Full Play to the Inner Cultural Resources and Their Spirits.

7-1 / Social Integration Strategies and Goals

For social integration, YunTech aims to foster humanistic care, help its students acquire application-oriented abilities, expand its social and global influence and build a harmonious, diverse, and sustainable campus in order to build a society that values cultural diversity, educational care, creative vitality, and environmental sustainability. To turn the vision into reality, YunTech has carried out the following strategies :



1. Innovating YunTech's general education courses to equip students with multi-cultural humanistic quality



62% of the teaching staff participated in running the faculty community

Innovation in YunTech's general education course, which began in 2017, encourages its teaching staff to revolutionize their teaching. Its primary goal is to construct a mature curriculum framework. The teaching staff guide freshman students on their Freshman Project, sophomores and juniors on their Middle Project, and seniors on their Capstone Courses; these projects are arranged to facilitate the acquisition of the industrial knowledge and skills as students' progress through the course. The operation of the teacher community via problem-based learning (PBL) courses, X + 1 courses, singularity module courses, and comprehensive teaching, promotes teaching knowledge and brings consensus about teaching. In this way, students not only develop industrial design thinking inside the classroom, but also gradually master the skills that they need for their future career through practice.

2. Promoting service-learning courses that equip students with educational care and facilitate lifelong learning



Approximately 1,400 freshmen participate in diverse service-learning programs every academic year.

YunTech's regular students and transfer students enrolled in any bachelor degree program are required to take a one-year compulsory service learning course. The course includes 36 hours of service learning per semester; its curriculum planning includes the four stages of service learning, namely preparation, service, reflection, and celebration. In the academic year of 105, volunteer orientation and training activities were incorporated into the service learning course; the activities were expanded from campus cleaning to diverse activities such as environmental services, activity assistance, transactional activities, and club activities that provide service to others. These service activities are designed to enable students to carry forward the spirit of punctuality, attitude, responsibility, empathy, and teamwork.

3. Offering moral education courses which has achieved favorable outcomes



Number of participants in moral education activities: 83,567

YunTech integrates moral education, life education, and living education into its curriculum to deepen and enhance students' moral principles and obligations. With holistic education as its vision, YunTech encourages its teachers to combine philosophical knowledge and ideas, and experiences with their education. In the most recent three years, the effectiveness of moral education activities has increased continuously.

Participants in Moral Education Activities during the academic year of 105 to 107 and its Growth Rate

Academic year	Number of participants	Growth rate
105	63,559	NA
106	76,627	20.56%
107	83,567	9.06%

4. Cultivating cross-domain talents with theoretical knowledge and practical experience on well-being medical care, sustainability, and AI



YunTech was granted NTD 35 million subsidy from the Ministry of Education's Program of Promoting the Training of International Technical Talents

In the near future, talents in industrial development, innovation, and management for the aging population will be in great demand. In order to develop terotechnology, a cross-domain emerging technology that integrates intelligent robotics and responds to the actual demand of the consumer market, YunTech established the bachelor's degree in Intelligent Robotics in September 2019. The program aims to develop talents in robotics and to promote the well-being of the elderly in Taiwan with intelligent technology.

5. Promoting social integration and placemaking



Number of social practice bases: 4

YunTech launched the "Social Practice Promotion Scheme" in 2018. Its main purpose was to build a social practice knowledge system based on Yunlin County and Taiwan, promoting maker education and maker spirit and building a regional service platform. The scheme deepened YunTech's collaboration with the four existing practice bases, including one at Kabuasua, and established 14 new ones. It also set up a school-level social practice center to implement various measures that fulfill its social responsibilities and to build a platform that will boost the circulation of resources, people, and knowledge.

6. Promoting industrial exchanges



Number of PBL
Research Centers: 27

YunTech established the General Research Center for Industry–University Collaboration (GRCIUC) in 2018, and other practical PBL research centers for different technological areas to facilitate national industrial development. The GRCIUC, serving as a platform that facilitates cooperation between YunTech and related industries, is responsible for the development of YunTech's PBL research centers. It uses technical elements and business transformation capabilities to attract enterprises to establish joint development or trial production centers on campus, creating a

university-industry cooperation base for YunTech and businesses that allows them to jointly cultivate talents. In line with GRCIUC's objectives of "laying a solid foundation for teaching and research", "innovating scientific research and development", and "deepening industrial services", YunTech provides diversified services, such as talent cultivation, technical guidance, problem-solving and industrial upgrading. In addition, YunTech cultivates talents by equipping them with both theoretical knowledge and practical experience, allowing them to provide customized services, including problem diagnosis and solutions, to meet different industrial needs and assists the industry in the transformation and upgrading of technology.

7. Promoting international exchanges



Number of international students: 722

In response to the trend of internationalization of higher education and academic exchanges, the Office of International Affairs assists YunTech's efforts for internationalization, which include promoting its academic research and learning outcomes, improving its academic status and reputation, and broadening students' horizon and helping them in formulating their career plan. In this way, the cultivated talents contribute and will contribute to the future development of Taiwan.

8. Promoting education for all

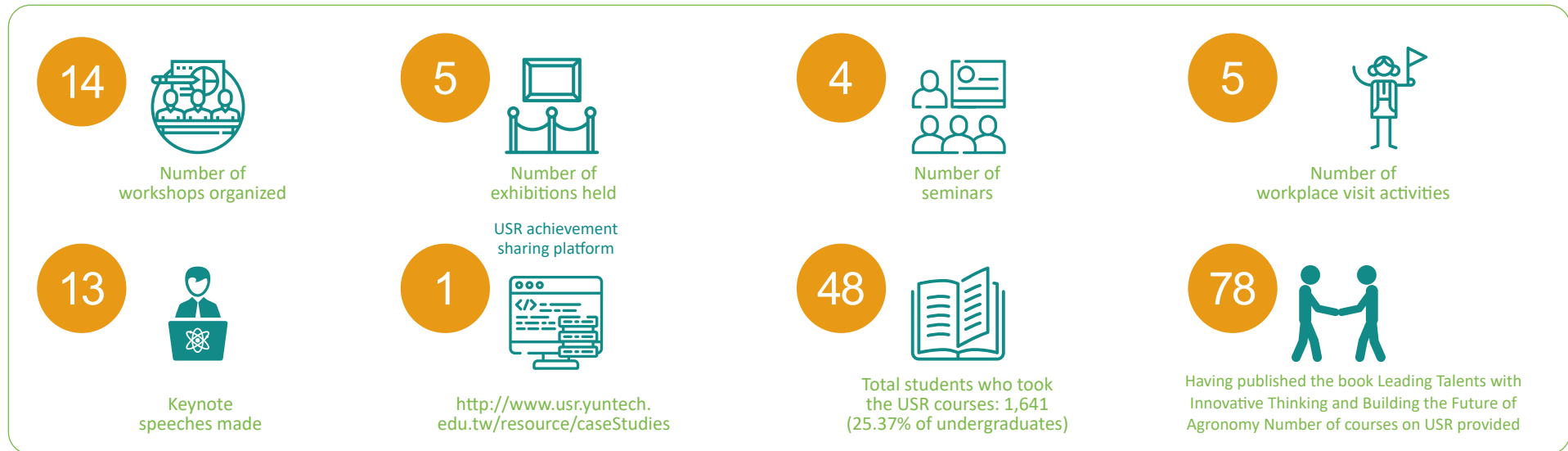
To uphold the following principles:



- Every student has equal rights to learn;
- Every student should have the opportunity to receive quality education;
- Every student's learning and achievements should be recognized; and
- Every student should assume the responsibility of lifelong learning.

Lifelong learning initiatives aim to enable everyone to have educational opportunities that meet their needs at every stage of life. These educational opportunities include family, school, and social education, which can be formal, on-the-job, and informal education. A society that supports lifelong learning emphasizes whole-person development, personal freedom, turning learning into a lifestyle, and expanding life meaning and goals. Lifelong learning is a commitment to a brighter life and future. With the advent of affluent society, information society, open society, and development society, countries across the globe have made progress towards a learning society. Building a learning society is not only the vision of YunTech's education, but also the ideal of social development; its purpose lies in seeking the growth of individual freedom and dignity, and the progress of social diversity and order. Learning society is not only a product of society, but also a vision that guides its social development.

7-2 / Social Practice inside the Campus



YunTech has been taking its social responsibility seriously. It has established two USR teams, Laiji USR and Qianshan USR. The teams, embodying the values of "YunTech is everywhere", developed partnerships between YunTech and industries. It encouraged involvement of the teaching staff in social practice, which promotes technical assistance and knowledge sharing among faculty members of different professional backgrounds. By creating a knowledge collection platform, YunTech provides an opportunity for university teachers and students to have more connections with the local community.

YunTech accumulates experience for PBL courses by reaching out to its surrounding community. It values problem-based learning, strives to build a social knowledge system, and implements aesthetic education to improve students' ability to put what they learn into practice.

In 2018, YunTech invested NTD 9.086 million for social practice, which produced the following outcomes :

- Twenty-five percent of YunTech students have taken USR courses.
- The school-level Teacher Community of Social Practice has been established, which supports community practice.
- Teaching staff shared the effectiveness of adopting textbooks and teaching methods in social practice guidance.
- Students were provided with opportunities to explore, practice and advance their abilities.



Community youth training

The College of Future actively helps its students to further advance their practical skills so that they can fulfill their social responsibilities together with their teachers by participating in social practice activities. YunTech encourages them to serve communities, enterprises, or authorities with professional skills in an innovative manner. In this way, YunTech hopes to build its own brand of volunteer services.

- YunTech supported cross-university cooperation in fulfilling USR

In 2018, YunTech held a seminar on the application of global patent retrieval systems to promote industry-university cooperation. YunTech also created a cross-university alliance in a concerted effort with TransWorld University, Yuanpei University of Medical Technology, Asia-Pacific Institute of Creativity, and Chung Jen College of Nursing, Health Science and Management. The alliance is dedicated to promoting tea industry, bamboo shoot industry, local specialty cuisine, community travel, water quality testing, etc.

- USR Teacher Team went international

The USR team visited Chiba University in Japan and went to several bases where Chiba University practiced placemaking. Referring to the experience of Chiba University, the team developed a community totem, and related cultural and creative products. For instance, "Guilin good food" lunch box made of local food materials, and ethnic art courses for happy seniors have been developed. In addition, the team began to transform an old house, which they named "Guilin Good Food Store", for selling Guilin goods.

Number of workshops and lectures attended by students	7
Number of students who participated in skills advancement	56 person-time (32.7% were students of the College of Future)
Number of service-learning courses	52 (a growth rate of 108%)

Furthermore, five students of the USR team went to Kuala Lumpur and Malacca, Malaysia. They studied at The Ferryman Art Space, Everybody Drum Art, and Little Giraffe Story House, and learned about batik, Hannah body drawing, ecological picture book creation, guide brochure production, drumming skills, drum use in some activities, story box creation, story-telling skills, transformation of old houses to story halls, etc. Students used what they had learned to help Guilin Community create batik story boxes, plant-dyed tea dresses, and community guide brochures. Moreover, they applied the experience shared by the curator of Little Giraffe Story House in transforming old houses in Guilin Community.

- YunTech obtained remarkable achievements in youth training and return

YunTech invites secondary school students in the community to form a youth volunteer team. During winter and summer holidays, YunTech teachers organize training camps that instill local consciousness, guiding children to understand what a community means and fostering their sense of community. After getting into college, students are asked to choose a course from a set of optional ones every semester, where they will be required to conduct an in-depth research on their community. The research will be written and submitted as a mid-term or final report. Consequently, YunTech organizes a seminar on community issues during winter and summer holidays, inviting them to come back to their hometown and present their report. In this way, YunTech hopes to help create local identity and promote the return of youth to their local community.

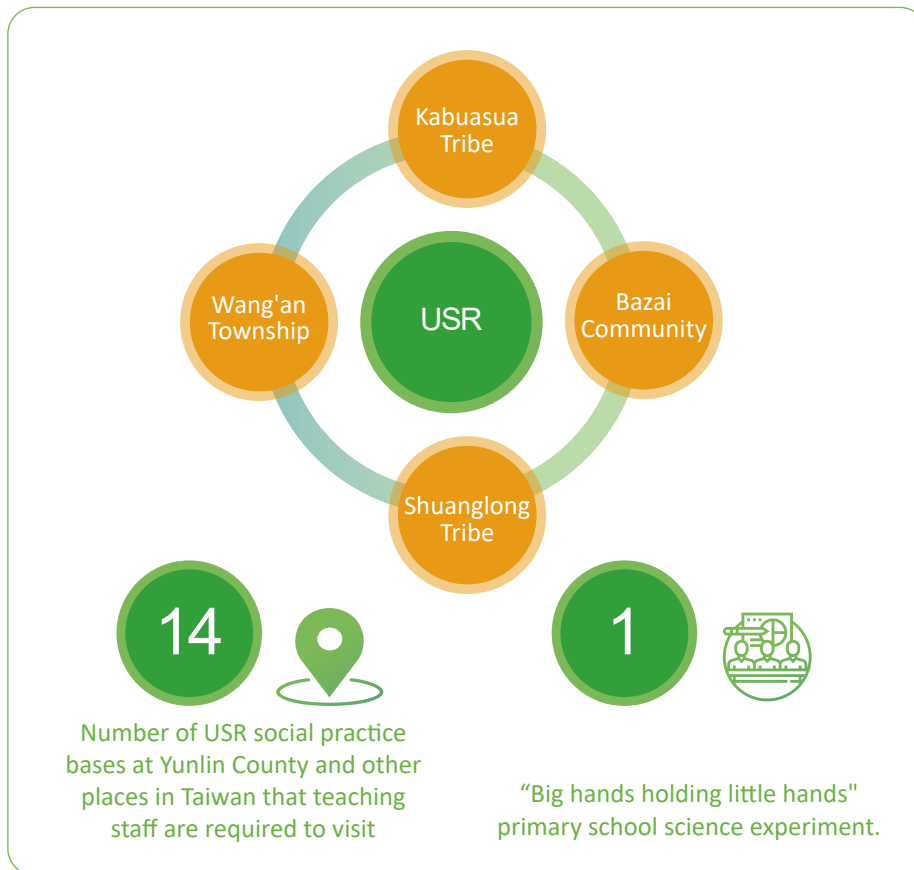
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7-3 Social Practice off Campus



YunTech's philosophy in training its students has been deeply rooted in the local community for many years. Social learning and practices are carried out with the local communities which help improve students' development and practical abilities. Moreover, it assists in integrating local resources by providing relevant technology, knowledge, and experience in various fields. It helps people cooperate and build collective strength to promote change in the community. In addition, it introduced the notion of "sustainable development" to the

community, promoting economic industries, environmental protection, and social care. Among these three aspects, developing industries in the community is fundamental because it provides residents with a stable income to further support their livelihood, which maintains the sustainability of community development because YunTech understands that excessive development will deplete community resources.

To help the local community's industry, YunTech gathered faculty members that specialize in this field, and appealed to community residents and relevant stakeholders to participate in ideation and implementation. Through collaboration of experts from YunTech and local communities, guidance was provided to declining industries and help them go through hard times, develop their own characteristics, and formulate long-term development plans. In this way, YunTech hopes to help maintain the sustainable operation of community industries.

To interact with the community, YunTech often organizes workshops to facilitate communication between them, listening to their opinions and jointly formulating development strategies. YunTech workshops are organized mainly based on the participatory design of the constructivism approach, which advocates that knowledge is created through interaction between people and the social context to improve the life of the community. Therefore, designers, researchers, and participants collaborate in the research and development for the community. During design ideation, workshop participants are involved in the development of a program, sharing their experiences and working with designers to create products. When communicating with the local community, YunTech employs this concept, asking community residents to participate, imagine, and create a vision for themselves and the community as a whole with YunTech USR teams.

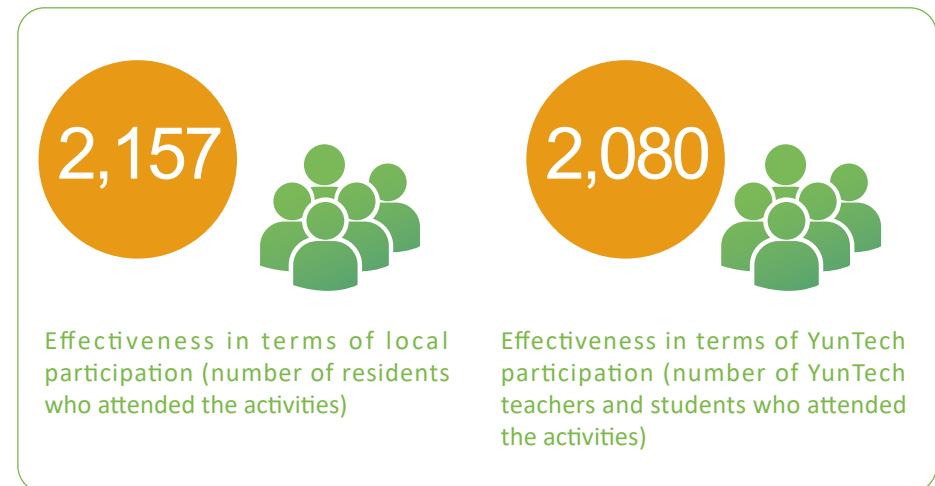
The Research Center for Social Practice actively promotes the program "Living at the Seashore : Local Value Identification and Social Design Practice of Yunlin Seashore", which is currently on its third year since its first implementation. YunTech has visited Shallow Water Cultivation Association of Yunlin County, Fisheries Experimentation Institute, and Bulaotang Sunshine Center. Based on these visits, the Research Center for Social Practice discussed the current situation of West Taiwan, and proposed improvement plans to the local authorities. In addition, the center led and assisted various projects with the Ministry of Education and local authorities. Through the implementation of these projects, knowledge and experiences of local authorities and communities within the Yunlin, Chiayi, and Tainan were shared and integrated with those of the teachers and researchers, therefore facilitating placemaking and the fulfillment of USR. For example, Nantou County promoted the "Flipped Design and Placemaking" and implemented the project "Demonstration Settlements of the Home to Tea and Bamboo" , which shaped regional development and fostered rural culture and economy through shared platforms, community settlement, and cross-domain co-created bases. Its schemes, including the "Association for Smart Agriculture Promotion" , "Integration and Innovation" , and "Smart Life Alliance" , mainly focus on environment-friendly agriculture and smart elderly care. Their goals include solving local problems and demands and enhancing students' capability to innovate and implement program plans, which are conducive to inheriting Taiwan' s rural characteristics and sustainable development.

Lastly, YunTech strives to give back to the society and undertake civic responsibility. It assists many communities across Taiwan in rediscovering themselves in terms of their local culture, environment, and industry. YunTech hopes to win the trust of local communities through long-term assistance in realizing growth, aiding declining

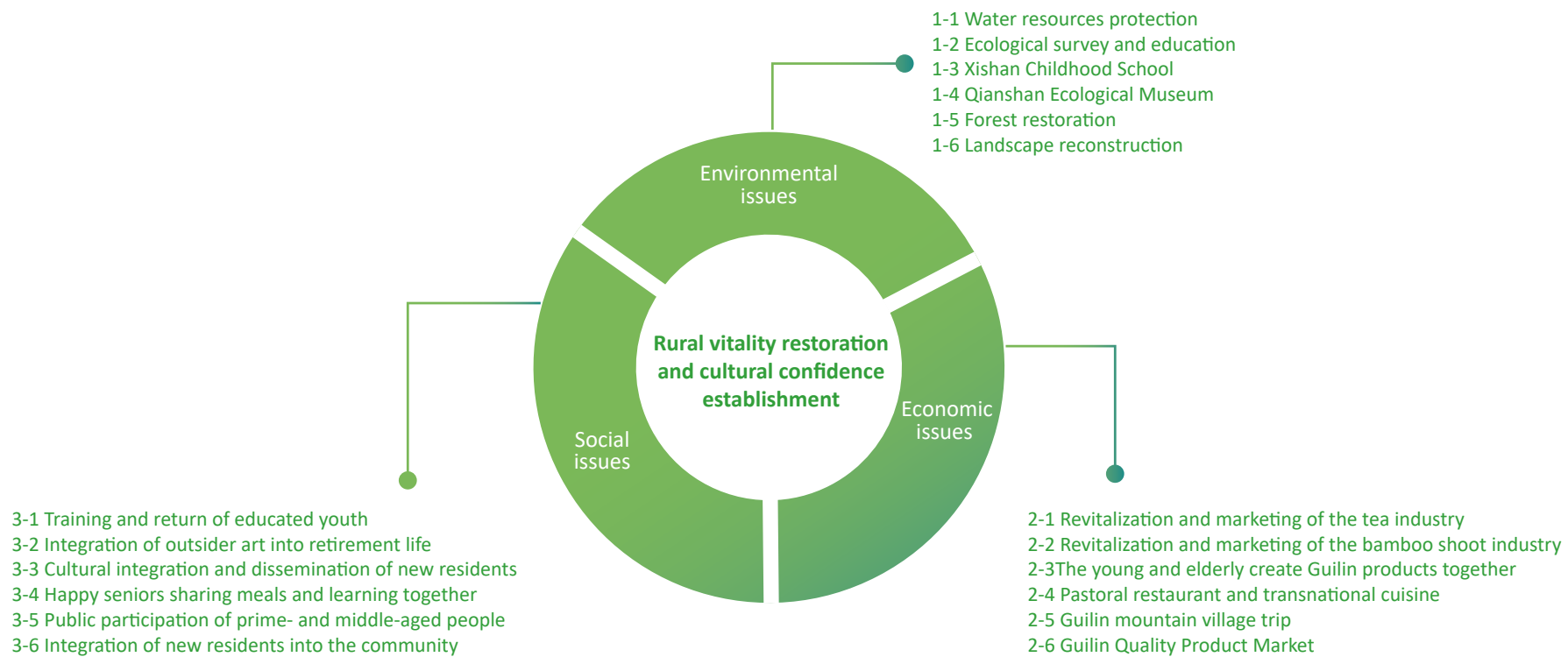
industries, and developing unique industrial characteristics. It is imperative that all participate in social practice. Therefore, YunTech leads teachers and students in visiting every corner of the community, hearing their concerns and helping them solve their problems. YunTech believes that joint efforts can be infinite, so it expects that the teachers and students continue to give back to the society and assume their civic responsibility.

Projects Implemented by Qianshan and Laiji USR Teams

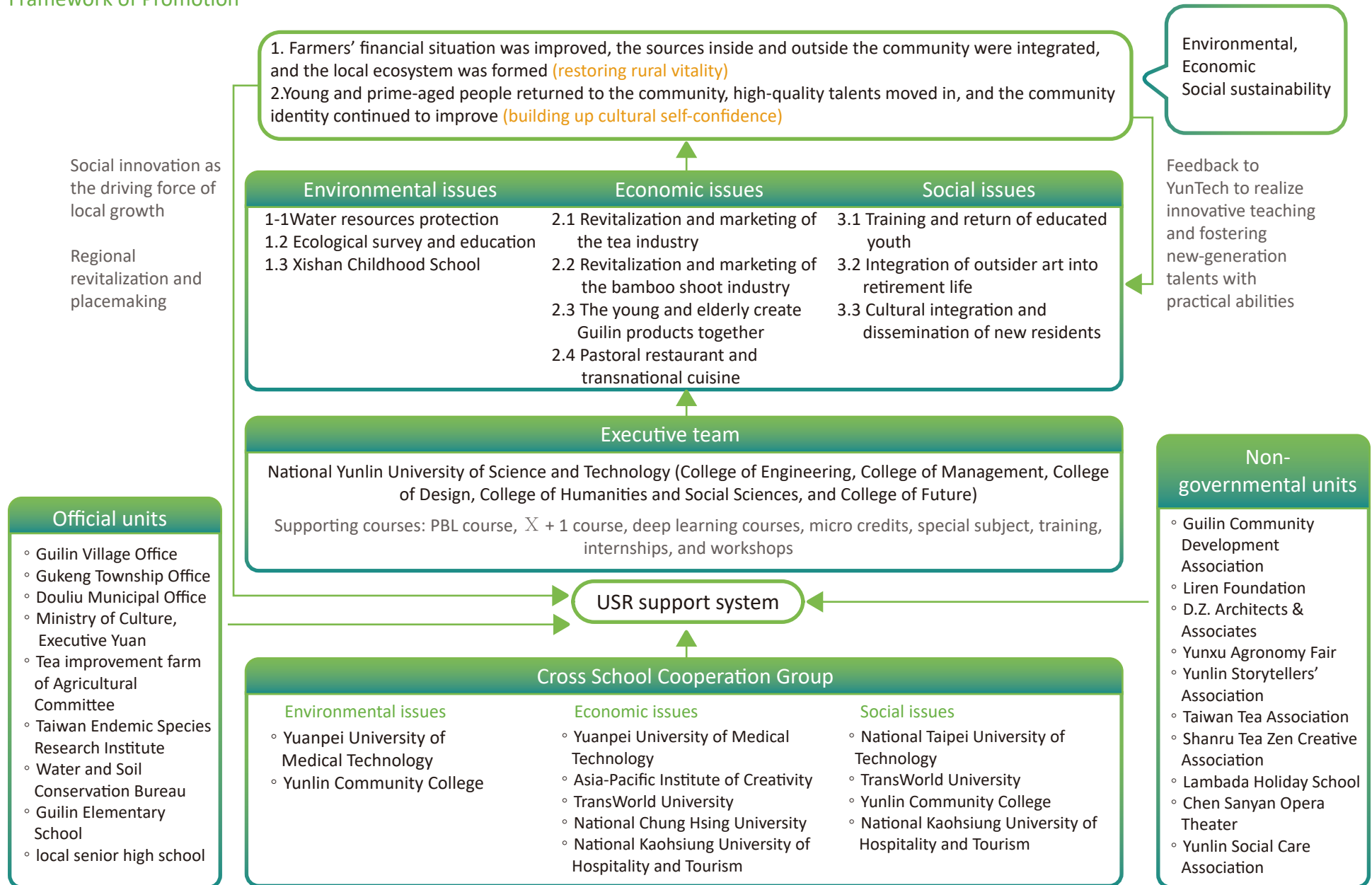
The Restoration of Rural Vitality and Establishment of Cultural Confidence Scheme by Qianshan USR Team



According to the needs of Guilin community at Gukeng Township of Yunlin County, Qianshan USR Team formulated ten major tasks for the environment, economy, and society, which are called "Ten Major Constructions of Guilin".



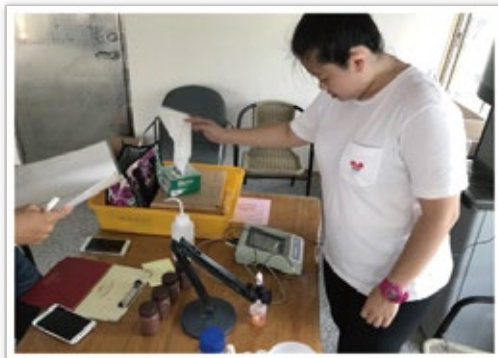
Framework of Promotion



Environmental Aspect

- Water resource protection

Mountain spring water from spring outlets and some households in Guilin community were sampled and tested. No pesticide and metal residues were detected but *Escherichia coli* bacteria exceeded the standard threshold value. Consequently, a meeting was held to communicate to the residents that the mountain spring water should be boiled before drinking, and to establish a water resources patrol team to reduce the amount of *Escherichia coli* in the water. Moreover, the team drew a hydrographic map that shows the flow of water in the area.



- Ecological survey and education

The team and community members were led by six commentators certified by Taiwan Endemic Species Research Institute to carry out ecological surveys around the community. They established an ecological database and compiled books on it. In addition, in response to the problems of macaque damaging orchards and areca detrimental to water and soil conservation, the team instructed community residents to grow crops like Chinese herbal medicine and tea trees, dyes, and edible wild herbs. At present, Guilin has opened up one natural agricultural Chinese herbal medicine garden and three natural

farming tea gardens, and developed new industries, such as plant dyeing, thread dyeing and weaving.



- Xishan Childhood School

YunTech organized its teachers and students, and community residents to visit Lambada Childhood School at Hsinchu to understand its business philosophy. After the trip, they integrated their experience with the opinions of the whole community and transformed the area along a stream and around a forest into a childhood school that allow its pupils to stroll in the natural environment. Moreover, they trained the teachers, planned the curriculum, and developed a mechanism of giving back to the community. They also organized small-scale pilot trips to transform nature into a learning field.



Economical Aspect

- Revitalization of the tea industry and marketing

In order to revitalize the tea industry in Guilin, the old houses in the community were transformed into small-scale tea factories. YunTech students and community residents assembled tea making machinery and learned to make and bake tea. Moreover, a class was organized to guide the residents on preparing and passing the exam to become certified tea sommeliers. In addition, YunTech helped promote the activity of sealing old tea and unsalable spring tea. The USR team also held a community industry forum every week to promote natural farming and the technique of kneading black tea by hand. In addition, a tea garden was rented to produce wild tea as a pilot project; a "women tea team" was set up to organize activities that promote hand-kneaded black tea. In 2018, 94% of the students passed the first stage of written examination for tea sommelier certification while 100% passed in the second stage. These endeavors were made to help revitalize the Guilin's tea industry, and to gradually build the local community's cultural confidence.



- Revitalization of bamboo shoot industry and marketing

Under the guidance of the community residents who are experienced in this industry, YunTech teachers and students built shacks used to dry bamboo shoots and set up bamboo shoot stoves. The stove has a capacity of cooking more than 1,000 kilogram of bamboo shoots, which were then subjected to drying after the cooking stage. The community residents and students made "Golden Mountain Squids" by shaping dried bamboo shoots into dried squids. They also made a number of processed bamboo shoot products. Through the "Golden Mountain Squid" activities, Guilin's bamboo shoot products were made and sold, which directly increased the income of the farmers.



- The young and elderly creating Guilin products together

YunTech USR teams led the local youth and community residents to develop locally-made products unique to the community, including skin scraping rod, tea digger, wine bottle shaped lamp, wine bottle potted plant, branch pencil, plant-dyed tea clothes, creative grass rings, etc. In this way, YunTech and the community found a way to help the Guilin industry to thrive.

- Pastoral restaurant and transnational cuisine

YunTech USR teams held multiple workshops to train chefs, who later developed cuisines using the raw materials produced by the community. Also, pastoral restaurants held a series of activities, enabling participants to enjoy the exquisite beauty of food while dining in the field, bringing people closer to the land and giving a strong sense of aesthetics. Moreover, new residents were invited to cook the cuisines they are good at, while transnational cuisines were appreciated by local residents. In this way, they were able to facilitate exchanges in food.



Social Aspect

- Educated youth training and return

YunTech USR team invites young individuals in the community to form a youth volunteer team. So far, three cultural training activities had been held to help the youth appreciate and know more about their local community and to develop a sense of community. The youth volunteers are asked to conduct in-depth research on the community which is summarized into ten written reports on community issues as outcomes. The reports are then published and presented in a meeting at the end of a semester. In this way, YunTech hopes to empower the youth, and help them accept responsibilities for their community, support their own culture, and boost their community's confidence. YunTech aims to foster positivity through the youth, hoping that they will be encouraged to go back to their community after graduation and apply what they have learned to help further boost their local area.



- Outsider arts integrated into the elderly's life after retirement

Mr. Huang Dengshi, a calligraphy teacher in the community, offers calligraphy courses to local elderly residents. In addition, Taiwan's Innovation Association for Young Entrepreneurs and Retirees helped open schools for the elderly where they can learn arts, rekindle their confidence, and become outsider artists.



- Integration and dissemination of new residents' culture

In order to help new residents adapt to their life, Guilin Elementary School offered courses about local cultural customs. In addition, new residents were invited to participate in all the courses and activities so they can blend in with the local residents.

This project has brought great changes to Guilin community; it has produced substantial results: encouraging interaction between residents, developing community industry, taking care of vulnerable groups within the community, revitalizing old culture and traditions and improving their local economy.

The implementation of this scheme also produced great changes in YunTech itself. The goals that have been achieved are as follows :

- (1) The social responsibility of YunTech as a model university of science and technology was fulfilled.
- (2) Students' ability for cross-domain cooperation and social problem solving were cultivated.
- (3) Students' sense of identity and responsibility for their own home and culture was facilitated.
- (4) The residents of Qianshan countryside (i.e. Guilin community) were led out of economic predicament.
- (5) The elderlys were provided an opportunity to have a decent retirement life.
- (6) Assistance was provided to new residents to help them blend in with the locals, and cross-border cultural exchanges were promoted.
- (7) Taiwan's rural areas were assisted in shaping their own characteristics based on their local culture and traditions.
- (8) The cultural confidence of Yunlin farmers was enhanced.



Developing old tea and promoting the tea leaves produced by Guilin Community

The Scheme for the Tsou Indigenous People of the Laiji Tribe

YunTech promoted the social practice scheme for the Tsou indigenous people of the Laiji tribe, Alishan Township of Chiayi County. YunTech teachers and students visited the tribe and made preparations for the foundation of Laiji Cultural Heritage School. A physical space was established as the base for the protection of Laiji cultural assets and the promotion of Lishan Spirit, and to help connect YunTech teachers and students with the tribe.

A virtual museum has been set up by gradually digitizing the cultural resources of the Laiji tribe after research and investigation. These resources include tangible and intangible ones, such as oral history records, ancient ballads, folk customs, community industries, crafts, and tourism.

In addition, "Design Empowerment Camps" were organized to review the problems that hindered the development of the tribal culture industry, propose solutions that could assist the tribe in keeping tribal culture authenticity during the business operation, and discuss how to maintain the dominant power of the tribal business.

The Alishan Social Practice Scheme aims to realize online cooperation and marketing of organic agriculture, introduce food and farming education, advocate communication of cultural concepts, and organize Alishan workshops, hoping to help Tsou indigenous people in promoting their cultural resources and spirit.



Laiji Tribe of Alishan



Activation, Reuse and Management Scheme of Wang'An Township's Huazhai Houses

Wang'an Township of Penghu County was faced with population outflow, aging, job loss, and community abandonment, so it was in urgent need of help from YunTech's research teams. Cultural Affairs Bureau, Penghu County entrusted the YunTech marine cultural and creative design team with the "Activation, Reuse and Management Scheme of Wang'An Township's Huazhai" (old-style historical houses). In addition to the establishment of Wang'an Huazhai service center, a seminar to plan Huazhai's future was held to reach a consensus. The team developed a three-year plan, the outcomes of which are measured through five aspects: brick and mortar, sensibility, economy, culture, and education. To implement the plan, the team collaborated with local organizations, schools and authorities. In this way, multiple projects were performed, such as industry-academia cooperation, community service, design project production, master's and doctoral dissertation research and teachers' research. Due to this project, Huazhai houses were promoted in a comprehensive manner. Years of team work enabled the team to observe the distribution of local resources and lifestyle of local residents; the data they obtained were used to formulate multiple schemes which were then executed. In addition, local students were trained as tourist guides, enabling them to appreciate and understand more about their local culture, and at the same time to impart local stories shared to them while growing up. Through these, the residents and university students and teachers jointly promoted the tribe. In this scheme, local identification and participation served as a key factor in sustainable operation.

Demonstration Settlement of the Home to Tea and Bamboo

YunTech launched the "Demonstration Project of the Home to Tea and Bamboo" in Zhushan Town to form a friendly environment for clustering and resource sharing. This project focuses on place branding for placemaking and entrepreneurial training. LITEHOUSE was responsible for the whole project, including placemaking. It led cross-domain cooperation teams and YunTech Dream Hub to establish an incubation base and form local teams. The resource integration mechanism "Home to Tea and Bamboo" enabled local community activation units and brand new units to generate an entrepreneurial cluster effect. The YunTech team, which led the project, worked with the local team Township Culture and Creativity with LITEHOUSE as the clustering environment that promotes sustainable operation. In this way, Wang'an Township received support from YunTech and the communities.



YunTech team was invited to hold an exhibition for its achievements on the project "Home to Tea and Bamboo" in Japan

Library Service

Considerable book resources, benefiting the local community and fulfilling the USR

Physical books in Chinese : 33,5781

Physical books in non-Chinese : 88,285

Since its establishment, YunTech Library has been promoting the philosophy that a university library should assume its USR and share its resources with the community. In accordance with the Library Law of the Republic of China and the Key Points of Accessing YunTech Library, YunTech promotes reading and digital learning by opening the library to the public through a scheme called "Friends of the Library" and cooperates with the library of other colleges and universities. Through the aforementioned scheme, YunTech enables the public to access the university's library after securing a permit that allows them to read books inside the library and borrow books from it. In addition, inter-library cooperation and resource sharing platforms among regional alliances offer them shared resources like commemorative e-books.

Books borrowed by non-YunTech Students and Faculty from 2016 to 2018

Books borrowed by non-YunTech Students and Faculty from 2016 to 2018

Year	Number of Books
2016	3,496
2017	2,300
2018	2,190



YunTech is the highest educational institution in Yunlin County. Its library is responsible for providing support to its staff and students and contributes to teaching, learning, and research. The university also shoulders its social responsibility of serving the people for their need for lifelong learning, and building a friendly and high-quality environment to facilitate learning and education. In accordance with the national education policy and YunTech's development plan, the mission of the university's library is to promote community development and share with the public its resources and facilities for knowledge acquisition. So far, YunTech has allowed the public to access its library, giving them permission to read inside the library and borrow books from it. The public, including volunteers, community residents, educational institutions, and industry-academic cooperation units, can apply for a permit that will give them access to the university's collection of books, computers, and exhibition halls in the library, and will allow them to participate in seminars and enjoy guided tours. Through this, YunTech is able to achieve its goal of "improving the publicity of higher education and fulfilling its social responsibility".

Library Permits Issued under the “Friends of the Library” Program and Growth Rate between 2016 and 2018

Year	Number of Permits	Growth Rate
2016	447	NA
2017	377	-15.66%
2018	438	16.18%



Statistics of YunTech and Non-YunTech Faculty and Students Served by the YunTech Library from 2016 to 2018

Year	Number of non-YunTech staff and students (visitors included)	Number of YunTech staff and students	Total Number of Visitors served by YunTech’s Library	Proportion of non-YunTech staff and students
2016	53,885	236,157	290,042	18.58%
2017	52,117	205,499	257,616	20.23%
2018	55,049	196,053	251,102	21.92%



Performance Activities

Since YunTech was founded, it has held various large-scale performance activities which were open to the public. It also guides and encourages student associations to hold activities to give back to the community. Student associations at YunTech such as the orchestra, national music club, drama club, and chorus have independently organized performances, which were highly recognized and participated by the public. Moreover, the Art Center was established to teach science and technology and humanistic arts, improve the art and culture climate on campus, promote arts education in collaboration with general education courses, and provide arts and cultural space for YunTech teachers, students and the community.

Recreational Activities between 2016 and 2018

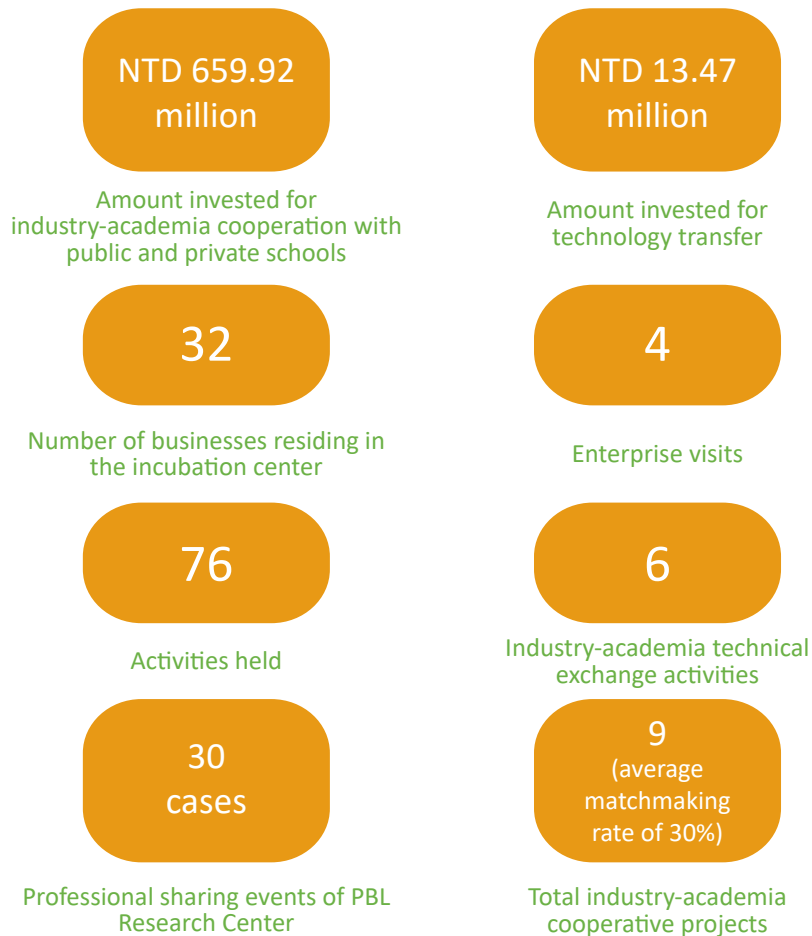
Year	Performance	Collection	Participants of Art Tours	Concert	Painting exhibition	Artist in residence	Extension education class
2016	20	4	3,641	2	1	0	3
2017	23	8	3,562	2	1	1	3
2018	22	7	3,437	2	1	2	4

Activities Held between 2016 and 2018

Year	Lecture	Public performance	Community service activities	Free educational activities
2016	5	4	27	57
2017	3	28	28	47
2018	10	40	16	35



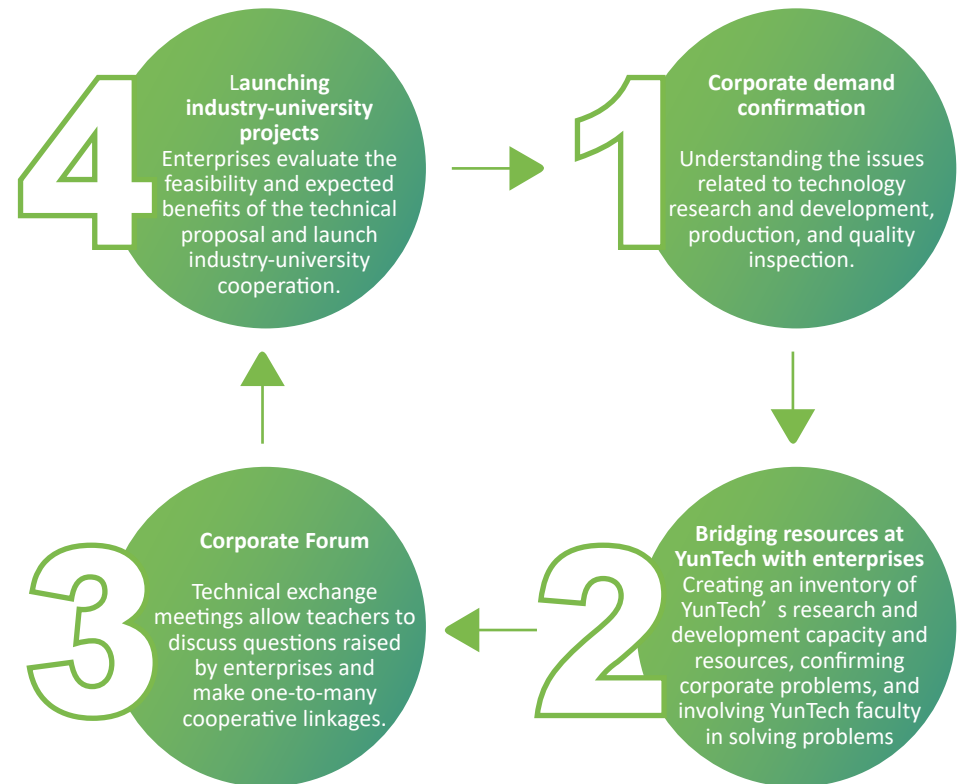
7-4 / Industrial Exchange



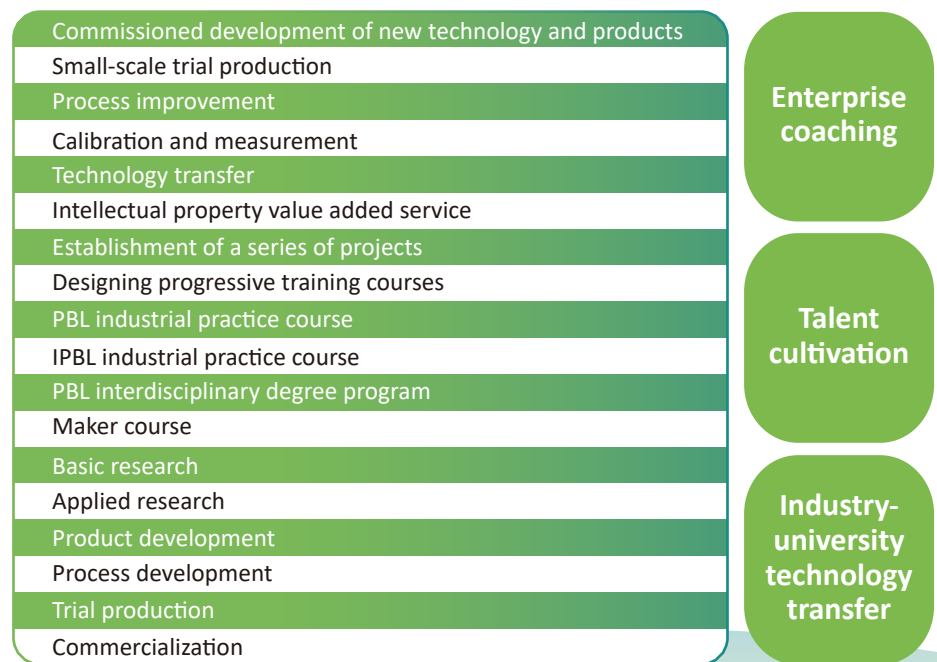
Innovation and Incubation Alliance and Taiwan Intelligent Identification Industry Alliance were founded.

General Research Center for Industry-University Collaboration (GRCIUC)

In order to integrate the industry-academia cooperation platform with enterprises, YunTech placed great importance to the B2B enterprise guidance mechanism, incorporated YunTech's core technology with professional manpower, and developed cross domain technology for national industrial development. YunTech upgraded the industry-academia cooperation from the previous point-to-point mode to the B2B systematic promotion mode, improving industry-academia cooperation and establishing GRCIUC.



GRCIUC provides a full range of research and development cooperation and business consulting services, including commissioned development of new technologies and products, small-scale trial production, process improvement, calibration measurement, technology transfer, and intellectual value-added services. In addition, laboratories and incubation centers have been established to nurture newly founded companies and accelerate the development of industrial technologies and emerging high-tech industries. The operation mode conforms to the pragmatic nature of universities of science and technology. Moreover, a problem-based learning (PBL) center has been established in various fields. The aforementioned problems have been improved through mechanisms such as capacity grading, project operation, manpower training, and innovation and entrepreneurship guidance.



Operation Mode of YunTech PBL Research Centers

GRCIUC is responsible for coordinating the research and development of YunTech. As a cooperation and matchmaking platform between YunTech and businesses, it uses technical elements and business transformation capabilities to attract enterprises for joint development or to establish trial production centers on campus, creating a cooperation platform for universities and industries to jointly cultivate talents and accomplish technology research and development. Moreover, through strategies such as “building on the teaching and research foundation” , “innovating technology research and development” , and “deepening research and development” , YunTech provides diverse services like talent cultivation, technical guidance, problem-solving, and industrial upgrading to meet various needs of industries and assist in industrial transformation and upgrading. To keep up with future industrial development trends and technology demands, YunTech has established 27 PBL research centers.



General Research Center for Industry-University Collaboration

PBL Research Centers

- Intelligent Engineering Management Consulting Service Center
- Smart Decision-making Research Center
- Nanotechnology Research Center
- Smart IC Research Center
- Intelligent Robot and Automation Application Service Center
- Hyperspectral Telemetry Engineering Technology Center
- Clean Green Sustainable Innovation Research Center
- Prospective Research Center for Industrial Security Risk Management Platform
- Smart Manufacturing Research Center
- Smart Electronics Center
- Smart Medical Research Center
- Renewable Energy Research Center
- Virtual Reality Technology Center
- Intelligent Identification Industry Service Research Center
- Intelligent Life Research Center
- Small Hydropower Equipment Research and Development and Application Research Center
- Smart Business Research Center
- Massive Data Research Center
- Artificial Intelligence Research Center
- Bicycling and Health Leisure Industry Research Center
- Cultural Science and Technology Research Center
- Intelligent Learning Research Center
- Smart Agricultural Park Research Center
- Brand Empathy Research Center
- Creativity Integration Design Center
- Intelligent Regional Design Service Research Center
- Maker Center

In 2018, GRCIUC invited representatives from different enterprises to match the needs of enterprises and PBL professional technology. The representatives from the enterprises were asked to identify the needs of their technical research and development or innovative operation. After that, those from the PBL research centers were requested to share their professional technology and current achievements. Through this, both stakeholders were able to provide many opportunities for future collaboration.



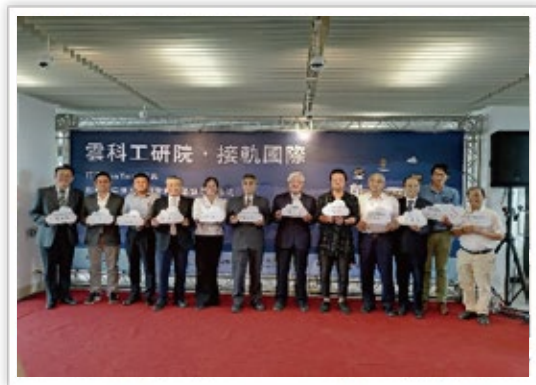
Photos during the Technical Exchange Meeting

YunTech's Incubation Center takes an active part in exchange activities in industrial zones, communicating its central business and school endeavors. Also, it holds government-university-industry exchange activities and exhibitions to showcase its achievements.

Through such events, YunTech's Incubation Center creates opportunities for small- and medium-sized enterprises to better understand incubation enterprises and create cooperation opportunities.

Innovation and Incubation Alliance

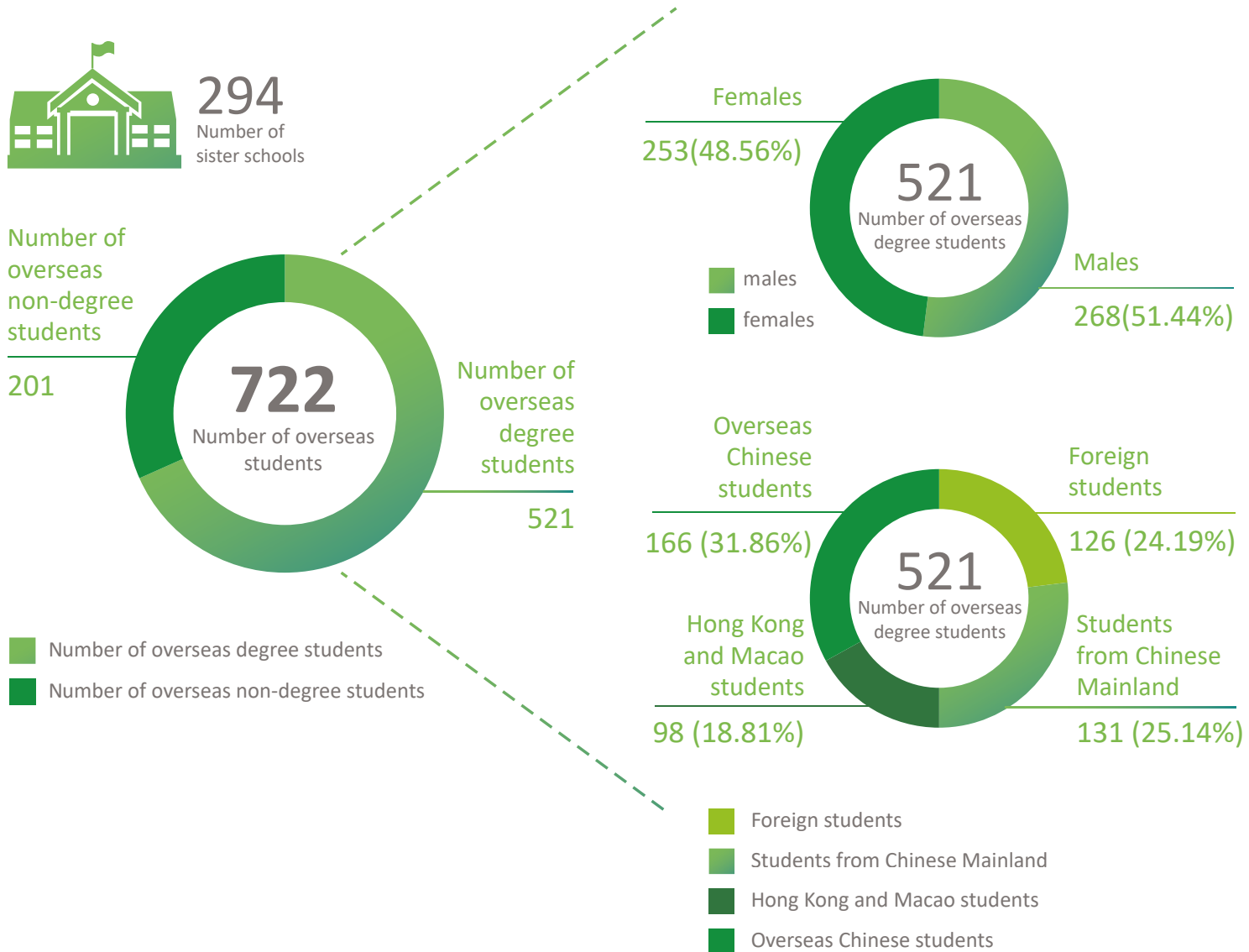
The purpose of YunTech's placemaking is to actively connect with authorities, corporation aggregates, incubation partners and venture capital firms. The Innovation and Incubation Alliance was then founded, which includes 28 partners such as the Yunlin county government, Douliu Municipal Office, Association of Industrial Zones, Institute for Information Industry, Incubation Center of Feng Chia University, National Chiayi University, TBIA Taiwan Innovation Alliance, and Fantasy Story Green Ray. These partners together with YunTech jointly built an industry-academia-research building as a hub for entrepreneurship.



Taiwan Intelligent Identification Industry Alliance

YunTech's Intelligent Identification Industry Service Research Center was selected by the Ministry of Education as the recipient of the Ten Characteristic Fields of Higher Education Sprout Project (HESP). Hence, the Ministry granted it an annual subsidy of NTD 40 million mainly to develop intelligent identification and intelligent medical image-aided diagnosis technology. Under the promotion of YunTech, Taiwan's Intelligent Identification Industry Alliance was established in June, 2018 to facilitate the international transformation of Taiwan's scientific and technological research and development and industrial operation and to provide technical support and assistance for the cultivation of enterprises.

7-5 / International Exchanges



YunTech actively promotes international exchanges by allowing teachers and students to go to overseas colleges and welcoming international students and scholars to the school. International exchange students can go to developed countries to get the most advanced and profound knowledge and understand different cultures. Students can not only get knowledge but also assimilate foreign cultures and establish international communication channels. YunTech is committed to progressing into a top university of science and technology in Taiwan, so it expands the academic exchanges and joins the international community. Moreover, it actively promotes the achievements of the school through various international activities such as academic cooperation and exchanges to gain the international recognition for YunTech.

To promote international exchanges, YunTech proactively send teachers and students abroad, encouraging them to participate in overseas study activities. YunTech expects that these activities help them improve their international mobility of our students, cultivate their global vision and enhance their international outlook. With the promotion of understanding and tolerating different cultures, our students can be exposed to foreign cultures while learning and also establish international communication channels. On the other hand, YunTech welcomes international students and scholars to Taiwan. By increasing the number of scholarships for international students, YunTech hopes to attract foreign students to the school campus and stimulate more cross-cultural exchanges and research results.

Number and percentage of international degree students in the academic years 105 to 107

Academic Year	105	106	107
Number of Overseas Degree Students	370	457	521
Number of Students	9,752	9,715	9,732
Percentage of Overseas Degree Students	3.79%	4.70%	5.35%

Achievements of the international academic exchange agreement

As of 2018, YunTech has 294 sister schools across 30 countries, of which 36 sister schools were newly added in 2018. Moreover, our school has been participating in the TAItech alliance and entered into an international alliance with the German HAWtech. In the future, teachers and students will have more opportunities for various exchanges with Germany. YunTech is also in the process of partnering with Makerere University Kampala, which is the best university in Uganda, Africa.

Teachers' participation in international exchanges and visits of foreign guests

YunTech encourages all of its departments to give lessons at well-known foreign colleges and to invite foreign experts, scholars, and science and technology talents to come to YunTech for short-term visits, symposiums, and lectures to enhance the research climate of the campus. YunTech also promotes the cooperation between colleges and departments and foreign industries or related research institutions in transnational academic research and encourage teachers to apply for transnational industry-education cooperation and exchange and professional talent training subsidy provided by the Ministry of Science and Technology or other institutions based on their ongoing research projects.

In 2017, Research Center for Soil & Water Resources and Natural Disaster Prevention Technology was awarded with the Horizon 2020 cooperative research project, which advanced the academic cooperation between YunTech and the European Union. Through teachers' outbound and inbound visits, YunTech improves its international profile and stimulates innovation in teaching research. We are committed to facilitating talent introduction by guiding overseas teachers to promote our school and with relevant enrollment publicity. Moreover, YunTech timely discusses future cooperation programs with foreign guests.

Students' participation in international exchanges

YunTech students are equipped with international perspectives; they often attend international academic seminars and exchange activities. Some of them study abroad at their own expenses or some with

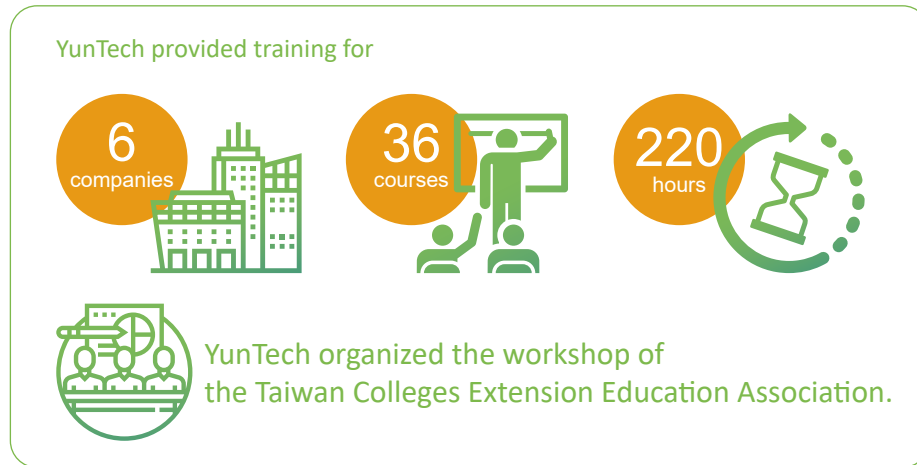
subsidies from the school. For example, students from the College of Management go to Seattle University, United States for summer programs every year, or go to Beijing, Shanghai, Shenzhen (Chinese Mainland), Indonesia, and Japan for internship. The number of students going abroad for study and exchange has been rising each year. From the academic year 105 to 107, nearly 291 attended international conferences, 316 went abroad for a short-term study and 264 went abroad for international exchange.

In 2018, 85 students participated in enterprise internship overseas, educational tours, and international volunteer work while 101 participated in international academic seminars and published papers. During winter and summer holidays, there were nine students in the short-term study camp outside the mainland and 81 in the Chinese mainland. A total of 276 students participated in all kinds of overseas studies and internships. In the future, YunTech will continue to negotiate with foreign universities to sign agreements on cooperative educational tours and student exchange programs and encourage students from both sides to communicate with each other and study courses to implement exchanges and cooperation.





7-6 / Extension Education



Extension Education Center meets the needs of domestic economic development and trains senior technical personnel. Moreover, the center actively integrates and provides relevant software and hardware, equipment, and other resources of the school to provide extension education classes and training, serve communities and give back to the community in accordance with the regional needs.

In recent years, YunTech's Extension Education Center has been playing an active role in marketing good teachers and education facilities. Using electro mechanics, design, and management, we carry out key technology remanufacturing activities with the local industry to fill the industrial manpower gap and enhance the operating capacity of enterprises nearby to achieve a win-win result for the industry and academics. The Extension Education Center actively undertakes all kinds of training courses and cooperates with enterprises to establish industry colleges.

Number of extension education classes and students from the academic year 105 to 107

Academic Year	105	106
Number of Classes	168	182
Number of Students	1,979	1,738

Undertaking training courses and industrial colleges

Extension Education Center has participated in the small businesses human resource improvement program proposed by Yunlin and Chiayi Branch of the Labor Development Department of the Ministry of Labor and launch a small business with 50 staff under the guidance program in Yunlin and Chiayi. YunTech was invited to the results presentation and got commended on November 4, 2018.

Number of trained enterprises, classes, and training hours from 2016 to 2018

Year	Number of Trained Enterprises	Number of Classes	Training Hours
2016	19	51	337
2017	8	53	448
2018	6	36	220

Undertaking the continuing vocational training project of Yunlin, Chiayi, and Tainan branch of the Labor Development Department of the Ministry of Labor

In 2016, when implementing the Shennong talent training program of the Ministry of Labor, YunTech held a series of cross-school and cross-office cooperation activities, including seven press conferences and training of 150 students and 25 new teams.

In 2017, YunTech undertook the industrial talents investment scheme proposed by Yunlin, Chiayi, and Tainan branch of the Labor Development Department of the Ministry of Labor, and launched five courses with the cost of TWD 492,500, including Human Machine Interface Basic Application Technology Training, New Technology Agriculture (Greenhouse), New Agriculture and Creative Management, Practical Business Vietnamese, and Chinese-Vietnamese Translation and Communication Skills.

In 2018, YunTech undertook the 2018 annual industrial talent investment program-s proposed by Yunlin, Chiayi, and Tainan branch of the Labor Development Department of the Ministry of Labor. Cooperating under the New Southward Policy, we launched two courses with a total cost of TWD 121,680, namely the primary Vietnamese conversation and the secondary Vietnamese conversation courses.

Number of classes and students under the continuing vocational training project of Yunlin, Chiayi, and Tainan branch of the Labor Development Department of the Ministry of Labor from 2016 to 2018

Year	Number of Classes	Number of Student
2016	5	150
2017	5	55
2018	2	24



Extension Education Center also offers a wide range of professional and life-long learning courses to provide more professional learning channels for the community. It also establishes an interactive channel with the industry, and expands the number of students. In 2018, it organized the second-quarter workshop of 2018 with the Taiwan Colleges Extension Education Association at YunTech with the theme of "opportunities and challenges of cooperation and training in trend industries". The competent institutions, industry leaders and experts on extension education across Taiwan were invited to the workshop to share and exchange ideas, expanding on the vision of extension education and providing suggestions for advancing extension education.

Mountain-Line Community College

YunTech assisted in the establishment of the Mountain-Line Community College at Yunlin County, and carried out the operation of the college, promoting lifel-long learning education, community construction, citizen participation, and rural culture within Yunlin County.

For the past 10 years, Yunlin Community College was still the only officially sponsored community college in Taiwan. Therefore, the county government integrated the existing educational resources, divided the college into three in 2011, namely Mountain-Line, Plain and Sea-Line Colleges, and gave a new orientation and mission to the community colleges. The operation of the Mountain-Line Community College was publicly authorized to YunTech. The operating philosophy of Yunlin Mountain-Line Community College includes localized development, profound culture roots, multiple learning, common growth, resource integration, community connection, cultural and creative industry, leisure and happy life, and consensus building, action, and practice, hoping to improve people's humanistic quality, life knowledge, and citizen participation. YunTech also integrates its resources and has established close connections with the community, fostering talents for community development and citizens for modern society to build a quality civil society.

For a long time, YunTech has been committed to community building at Yunlin County. We firmly believe that people's learning is not limited to school education while people learning after school is the cornerstone of the improvement of national competitiveness, social stability, economic development and happy communities. In the future, the Mountain-Line Community College of Yunlin County will create an organic learning space where the local people study

together. More importantly, it will become a vibrant community college that disseminates knowledge. It will actively help improve people's knowledge, cultivate their independent thinking ability to enrich their life and develop community culture further. At the same time, it will increase people's participation in public affairs and cultivate their modern civic awareness. In combination of local cultural characteristics, Yunlin will be built into a unique learning county.

Total number of admitted students of the community college from the academic year 105 to 107

Academic Year	Enrollments
105	2,105
106	2,129
107	2,138

08 /

Performance of the Supply Chain Management

Major issues of this chapter

- Supplier Management



8-1 / Sustainable Supply Chain Policies and Goal

Being a public institution, YunTech's procurement process conforms with the "Government Procurement Law". Moreover, to further institutionalize the process, enhance procurement efficiency and function, guarantee the quality of procurement, and ensure that each department complies with relevant engineering, finance, and service procurement regulations, YunTech established the "Key Points on Procurement within the National Yunlin University of Science and Technology". YunTech's contract with its suppliers clearly stipulates their need to act in accordance with the law on the protection of the rights and interests of the disabled and indigenous people including their right to be hired and receive equal pay. The suppliers are also expected to abide with the gender equality law prohibiting gender discrimination and sexual harassment, and ensuring gender equality in the workplace. Any breaches shall be handled in accordance with the implementing rules and regulations of the Labor Standards Law. **Therefore, it is to say, Yuntech's selection of supplier in conforming with the social standard is 100%.**



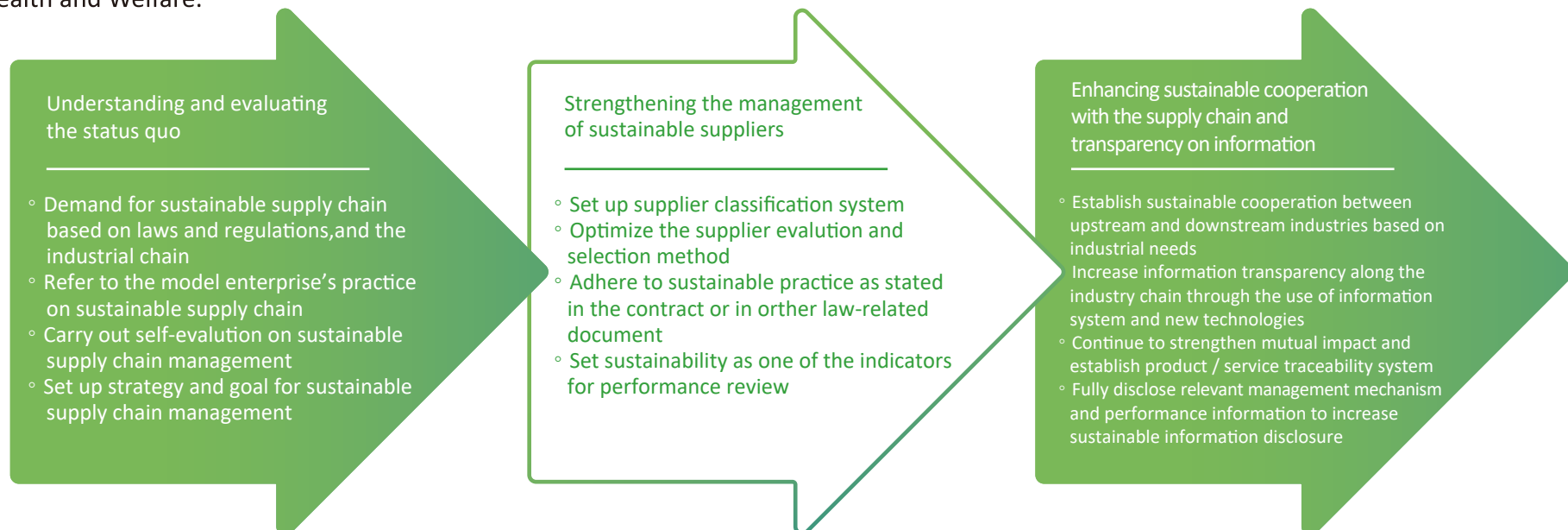
YunTech gives priority to suppliers located in Taiwan, and the procurement process involved is as follows



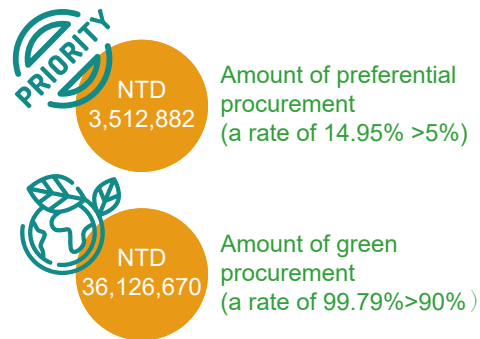
The relationship between YunTech and its suppliers is built on the basis of "connection". Establishing a friendly industrial environment with partners from the supply chain remains to be a major concern for the "green supply chain". The key factors affecting the "green supply chain" are as follows :

- The degree of commitment universities has for carrying out green activities.
- The degree to which universities depend on suppliers.
- Universities' management practices towards suppliers (Supplier Relationship Management, SRM).
- The exchange costs for universities.

YunTech believes that suppliers' behavior is affected by an institution's green attitude. The university ensures that proper authorities are informed of its preferential purchase and its green purchase ratio of food and supply goods according to the ethical procurement policy. Preferential procurement has been carried out since 2012, and its amount has been increasing every year. In 2018, the amount of preferential procurement has reached NTD 3,512,882, with a good implementation performance gaining 14.95% of the total procurement and exceeding the 5% regulation of the Ministry of Health and Welfare. Green procurement has also been carried out since 2012, and has been increasing steadily, too. In 2018, the amount of green procurement has reached NTD 36,126,670 with a procurement rate of 99.79% which exceeded the 90% regulation of the Ministry of Health and Welfare.



8-2 / Implementation Method and the Effectiveness



Preferential Procurement and Green Procurement

To promote green living for all of its citizens, the Taiwanese government takes the lead in implementing green procurement and encourages enterprises, organizations, and communities to join in on its efforts. Items under preferential procurement, in accordance with the allowed procurement ratio, includes food, handicrafts, cleaning supplies, gardening products, auxiliary equipment, household goods, printing, cleaning services, catering services, car washing service, laundry service, customer service, OEM service, entertainment service, transportation service, and other items publicized by relevant authorities.

Additionally, items under green procurement, based on the allowed procurement ratio, includes provincial aquatic products, resource recovery products, and information products. To promote green procurement, advocate social responsibility, and uphold fair and equal purchasing practices, Yun Tech established an ethical procurement policy for food and supplies. The policy stipulates that YunTech will purchase at least 5% of the total needed goods and services from

welfare institutions or sheltered workshops, and green procurement shall take up no less than 90% of the total procurement each year. For the past three years, YunTech's green procurement rate has been maintained at above 99% and its preferential procurement rate at 5%.

Year	Preferential procurement	
	Procurement amount (NTD)	Procurement rate (%)
2016	2,802,177	24.96
2017	2,385,727	10.61
2018	3,512,882	14.95

Year	Green procurement	
	Procurement amount (NTD)	Procurement rate (%)
2016	31,266,108	99.73
2017	39,634,020	99.38
2018	36,126,670	99.79



Environment-Friendly Mark



Category II Environment-Friendly Mark
(Usage certificate)



Energy-Saving Mark



Water-Saving Mark



Green Building Materials Mark



CO2 Emission Reduction Mark



09 /

Comparison with Sustainability Indicators



9-1 / Comparison with the Contents of GRI Standards Project

Common Standards

GRI 102: 2016 / General Disclosure

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
102-1	Name of Organization	Organizational Chart	13	
102-2	Activities, Brands, Products and Services	Organizational Chart	13	
102-3	Headquarters' Location	Organizational Chart	13	
102-4	Location of Operation Activities	Organizational Chart	13	
102-5	Ownership and Legal Form	Organizational Chart	13	
102-6	Market for Service Provision	Organizational Chart	13	
102-7	Scale of Organization	Organizational Chart, Financial Performance	107-109	
102-8	Information on Employees and Other Workers	The Development and Cultivation of Human Resources	63-71	
102-9	Supply Chain	Sustainable Supply Chain Policies and Goal	185	
102-10	Significant Changes on the Organization and Its Supply Chain	Organizational Chart	13	No Significant Change in the Organization and Its Supply Chain
102-11	Early Warning Principle or Policy	Risk Analysis and Internal Control System	35-40	
102-12	External Initiatives	Governance Procedures, Energy and Resource Management and Energy-Saving Measures	29,119	
102-13	Membership on Public Associations	Governance Procedures		
102-14	Statement of Decision Maker	A message from President	5-6	
102-15	Key Impacts, Risks, and Opportunities	Risk Analysis and Internal Control System	35-38	
102-16	Values, Principles, Standards, and Codes of Conduct	Academic and Educational Ethics	59-61	
102-18	Governance Structure	Governance Procedures	29-33	
102-20	Management Stand on Economic, Environmental and Social Themes.	Sustainability and Social Responsibility	77	
102-22	Composition of the Highest Governance Unit and Its Committee	Governance Procedures	29-33	
102-23	Chairman of the Highest Governance Unit Role of the Highest Governance Unit in the Establishment of	Organizational Chart, Governance Procedures	13,29	
102-26	Purposes, Values, and Strategies	Governance Procedures	29	
102-32	Role of the Highest Governance Unit in Sustainability Reporting	Sustainability and Social Responsibility Committee	77	

Common Standards

GRI 102: 2016 / General Disclosure

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
102-40	Stakeholder Group	Communication with Stakeholders	41	
102-41	Group Agreement			No Consolidated Statement in Our School
102-42	Identification and Selection of Stakeholders	Communication with Stakeholders	41	
102-43	Guidelines for Communication with Stakeholders	Communication with Stakeholders	41-45	
102-44	Putting Forward Key Themes and Concerns	Communication with Stakeholders	46-48	
102-45	Entities Included in the Consolidated Financial Statements			No Consolidated Statement in Our School
102-46	Defining the Content and Subject Boundary of the Report	Communication with Stakeholders	46-48	
102-47	List of Major Topics	Communication with Stakeholders	48	
102-48	Information Reprogramming			This report is prepared for the first time.
102-49	Report Changing			
102-50	Reporting Period	About the Report	3	
102-51	Date of Last Report	About the Report	3	
102-52	Reporting Cycle	About the Report	3	
102-53	Contact Person for Answering Questions Related to the Report	About the Report	3	
102-54	Declaration of Reporting in Accordance with GRI Standards	About the Report	3	
102-55	GRI Content Index	Comparison with the Contents of GRI Standards Project	191-194	
102-56	External Assurance	About the Report and Appendix	3,196	
GRI 103: 2016 Management Policy				
Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
103-1	Explaining the Major Themes and Their Boundaries	Communication with Stakeholders	50-58	
103-2	Management Policy and Its Elements	Communication with Stakeholders	50-58	
103-3	Evaluation of Management Policy	Communication with Stakeholders	50-58	

Economic Standards

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
GRI 201:2016 Economic Performance				
201-1	Direct Economic Value Generated and Distributed by Organizations	Financial Performance	107-108	
201-4	Financial Subsidies from the Government	Financial Performance	107-108	
GRI 202:2016 Market Position				
202-1	Ratio of Standard Salary to Local Minimum Salary of Grass-roots Workers of Different Genders	Staff Benefits and Complaints	73	
GRI 203:2016 Indirect Economic Impacts				
203-1	Development and Impact of Infrastructure Investment and Support Services	Social Practice off Campus	168	
GRI 205:2016 Anti-corruption				
205-3	Identified Corruption Incidents and Actions Taken	Academic Ethics and Clean Governance	61	

Environmental Standards

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
GRI 302:2016 Energy				
302-1	Energy Consumption Within the Organizations	Energy Resource Management and Energy Saving Measures	122	
GRI 303:2016 Water				
303-3	Recycled and Reused Water	Environmental Management Performance	123-126	
GRI 306:2016 Sewage and Waste				
306-1	Sewage discharge volume divided in accordance with water quality and discharge destination.	Environmental Management Performance	124-125	
306-2	Waste divided in accordance with category and disposal method.	Environmental Management Performance	126	
GRI 307:2016 Regulations Compliance on Environmental Protection				
307-1		Compliance with Regulations	143	No Violation of Environmental Regulations

Social Standards

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
GRI 401:2016 Labor Employment Relationship				
401-1	New and Resigned Employees	The Development and Cultivation of Human Resources	68-71	
GRI 403:2016 Occupational Safety and Health				
403-1	Workers' Representatives in a Formal Safety and Health Committee composed of Employers and Employees	Campus Safety and Health	131	
GRI 405:2016 Diversity and Equal Opportunities of Employees				
405-1	Diversity of Management Units and Employees	Governance Procedures, The Development and Cultivation of Human Resources	63-71	
GRI 406:2016 Non-discrimination				
406-1	Discrimination Incidents and Improvement Actions taken by the Organizations	Staff Benefits and Complaints	73	No Discrimination Incident
GRI 414:2016 Supplier Social Assessment				
414-1	Use of Social Standards to screen New Suppliers	Sustainable Supply Chain Policies and Goal	185	
GRI 418:2016 Customer Privacy				
418-1	Complaints of Confirmed Infringement of Customer Privacy or Loss of Customer Information	Information Security	133	

Disclosure of Other Themes

Number	Items for Disclosure	Corresponding Chapters	Pages	Remarks
Customized Topics		Corresponding Chapters	Pages	
	Employment Environment and Opportunities	Results of Student Employment	83-84	
	Research and Industry-academia Cooperation Performance	Academic Achievements, Effects of Industry-Academia Cooperation	93-94,95-96	
	Teaching Quality and Effect	School Performance	79-104	

9-2 / Comparison with the Contents of the United Nations SDGs Project

Chapters	SDGs					
02 YunTech' s Vision and Strategy						
03 Organizational Governance and Stakeholder Participation						
04 School Performance						
05 Financial Operation Performance						
06 Environmental Protection Performance						
07 Social Integration and Place-making						
08 Supply Key Management Performance						

INDEPENDENT ASSURANCE OPINION STATEMENT

YunTech 2018 Sustainability Report

The British Standards Institution is independent to National Yunlin University of Science and Technology (hereafter referred to as YunTech in this statement) and has no financial interest in the operation of YunTech other than for the assessment and verification of the sustainability statements contained in this report.

This independent assurance opinion statement has been prepared for the stakeholders of YunTech only for the purposes of assuring its statements relating to its social responsibility, more particularly described in the Scope below. It was not prepared for any other purpose. The British Standards Institution will not, in providing this independent assurance opinion statement, accept or assume responsibility (legal or otherwise) or accept liability for or in connection with any other purpose for which it may be used, or to any person by whom the independent assurance opinion statement may be read.

This independent assurance opinion statement is prepared on the basis of review by the British Standards Institution of information presented to it by YunTech. The review does not extend beyond such information and is solely based on it. In performing such review, the British Standards Institution has assumed that all such information is complete and accurate.

Any queries that may arise by virtue of this independent assurance opinion statement or matters relating to it should be addressed to YunTech only.

Scope

The scope of engagement agreed upon with YunTech includes the followings:

1. The assurance scope is consistent with the description of YunTech 2018 Sustainability Report.
2. The evaluation of the nature and extent of the YunTech's adherence to AA1000 AccountAbility Principles (2018) in this report as conducted in accordance with type 1 of AA1000 Assurance Standard (2008) with 2018 Addendum assurance engagement and therefore, the information/data disclosed in the report is not verified through the verification process.

This statement was prepared in English and translated into Chinese for reference only.

Opinion Statement

We conclude that the YunTech 2018 Sustainability Report provides a fair view of the YunTech CSR programmes and performances during 2018. The CSR report subject to assurance is free from material misstatement based upon testing within the limitations of the scope of the assurance, the information and data provided by the YunTech and the sample taken. We believe that the 2018 economic, social and environmental performance information are fairly represented. The CSR performance information disclosed in the report demonstrate YunTech's efforts recognized by its stakeholders.

Our work was carried out by a team of CSR report assurers in accordance with the AA1000AS (2008) with 2018 Addendum. We planned and performed this part of our work to obtain the necessary information and explanations we considered to provide sufficient evidence that YunTech's description of their approach to AA1000AS (2008) with 2018 Addendum and their self-declaration in accordance with GRI Standards: Core option were fairly stated.

Methodology

Our work was designed to gather evidence on which to base our conclusion. We undertook the following activities:

- a review of issues raised by external parties that could be relevant to YunTech's policies to provide a check on the appropriateness of statements made in the report.
- discussion with managers on approach to stakeholder engagement. However, we had no direct contact with external stakeholders.
- 32 interviews with staffs involved in sustainability management, report preparation and provision of report information were carried out.
- review of key organizational developments.
- review of the findings of internal audits.
- review of supporting evidence for claims made in the reports.
- an assessment of the organization's reporting and management processes concerning this reporting against the principles of Inclusivity, Materiality, Responsiveness and Impact as described in the AA1000AP (2018).

Conclusions

A detailed review against the Inclusivity, Materiality, Responsiveness and Impact of AA1000AP (2018) and GRI Standards is set out below:

Inclusivity

This report has reflected a fact that YunTech has sought the engagement of its stakeholders and established material sustainability topics, as the participation of stakeholders has been conducted in developing and achieving an accountable and strategic response to sustainability. There are fair reporting and disclosures for economic, social and environmental information in this report, so that appropriate planning and target-setting can be supported. In our professional opinion the report covers the YunTech's inclusivity issues.

Materiality

YunTech publishes material topics that will substantively influence and impact the assessments, decisions, actions and performance of YunTech and its stakeholders. The sustainability information disclosed enables its stakeholders to make informed judgements about the YunTech's management and performance. In our professional opinion the report covers the YunTech's material issues.

Responsiveness

YunTech has implemented the practice to respond to the expectations and perceptions of its stakeholders. An Ethical Policy for YunTech is developed and continually provides the opportunity to further enhance YunTech's responsiveness to stakeholder concerns. Topics that stakeholder concern about have been responded timely. In our professional opinion the report covers the YunTech's responsiveness issues.

Impact

YunTech has identified and fairly represented impacts that were measured and disclosed in probably balanced and effective way. YunTech has established processes to monitor, measure, evaluate and manage impacts that lead to more effective decision-making and results-based management within the organization. In our professional opinion the report covers the YunTech's impact issues.

GRI Sustainability Reporting Standards (GRI Standards)

YunTech provided us with their self-declaration of in accordance with GRI Standards: Core option (For each material topic covered by a topic-specific GRI Standard, comply with all reporting requirements for at least one topic-specific disclosure). Based on our review, we confirm that social responsibility and sustainable development disclosures with reference to GRI Standards' disclosures are reported, partially reported or omitted. In our professional opinion the self-declaration covers the YunTech's social responsibility and sustainability topics.

Assurance level

The moderate level assurance provided is in accordance with AA1000AS (2008) with 2018 Addendum in our review, as defined by the scope and methodology described in this statement.

Responsibility

The CSR report is the responsibility of the YunTech's chairman as declared in his responsibility letter. Our responsibility is to provide an independent assurance opinion statement to stakeholders giving our professional opinion based on the scope and methodology described.

Competency and Independence

The assurance team was composed of Lead auditors experienced in relevant sectors, and trained in a range of sustainability, environmental and social standards including AA1000AS, ISO 14001, ISO 45001, ISO 14064 and ISO 9001. BSI is a leading global standards and assessment body founded in 1901. The assurance is carried out in line with the BSI Fair Trading Code of Practice.

For and on behalf of BSI:



Peter Pu
Managing Director BSI Taiwan

2019-08-03



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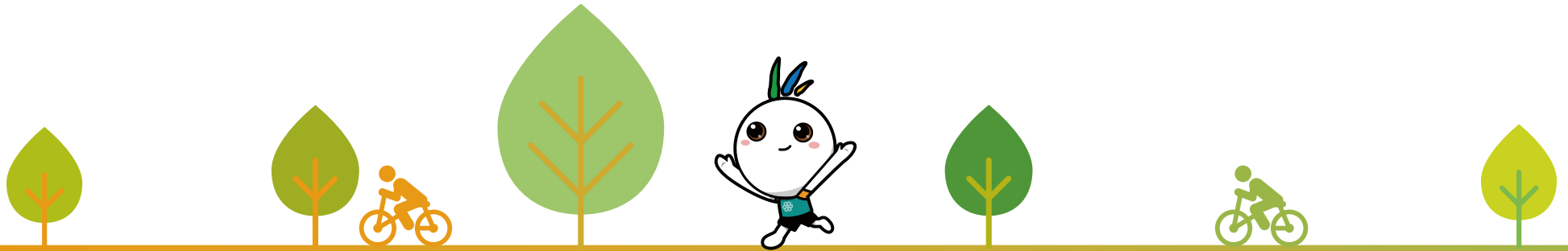
光碟應用實驗室

雲興霞蔚·金玉滿堂

典範與分享並進

雲興霞蔚
每整點20分

雲興霞蔚自於傳統中，展現對於新創精神，玉照雲霞與雲霞霞片相映成趣，也可感受雲霞的悠閒與靜謐，玉照立體以雲霞大為特約「雲霞秀」，為現代國家文化大學國際學術研討會，邀請雲霞與國立交通大學國際學術研討會中，由中研院長、美國、金五福、劉景怡等學術界最高學術領袖，指導雲霞與小時長與六位編譯師的雲霞秀，以及光碟應用可透過手機APP連線，將雲霞與數位出版與展示，讓民眾與雲霞互動，展現的雲霞秀。



2018 CSR REPORT

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