"GHCC Training & Consulting" Center

Establishment and plan of Jeju Special Self-Governing Province (draft)

GHCC
AI System
Jeju T & C

ECHO FRIENDLY HALAL
GLOBAL HALAL CERTIFICATION CENTER

ECO Friendly

JEJU ISLAND

Itinerary for 2 to 5 days
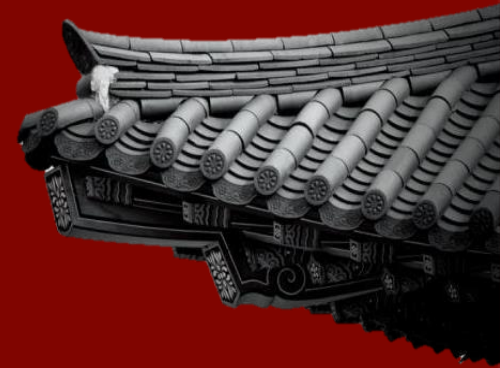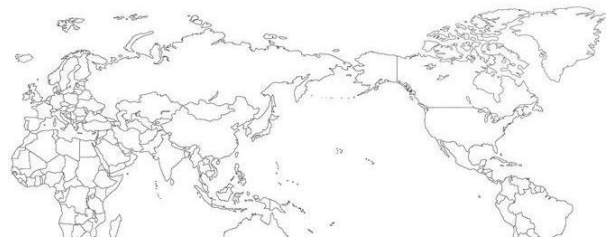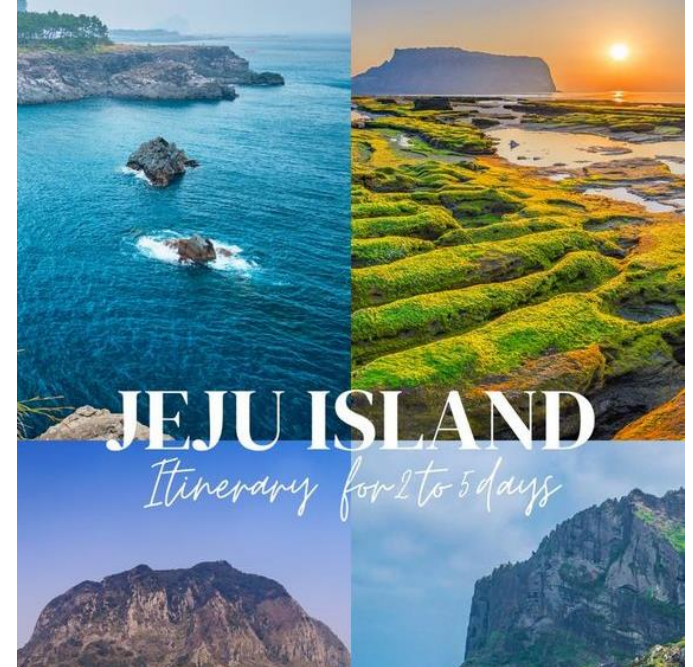
Business Overview

Name	**"GHCC Training & Consulting" Center**
location	Jeju Island, South Korea Special Self-Governing Province
Area	4950m^2
Affiliates	■ Global Halal Certification Center■ GHCC Indonesia
Project Period	2024~
Facilities	Education Center, Counseling Room, R&D Center, Entertainment, Office

- Including major Asian economies such as China, Japan, Hong Kong, and Russia.
- Located in the center of the Northeast Asian economic zone, a core region occupying 1/5 of the world's economic scale

Indonesia

Business Operations

- Halal certification education and consultation

- Training of technical manpower in Indonesia and job placement in Korea

- Attracting Tourists and Tourism

- Leisure & Entertainment

- Indonesia / Korea Halal & General Trade Consultation Service

- Investment Consultation and Attraction

ECHO FRIENDLY HALAL
GLOBAL HALAL CERTIFICATION CENTER
GHCC
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Background of the establishment
of the company

Global Halal Certification Center (GHCC) /

Training & Consulting Center

Chairman : Kwon Jung Sang

Background of the establishment of the company

• On October 12, 2023, Global Halal Certification Center Co., Ltd. signed an agreement with LPH-KHT PP Muhammadiyah, which is affiliated with Muhammadiyah, one of the largest religious organizations in Indonesia, for education, training, human resource development, and information technology consulting related to global halal certification and halal, and received a promise of support from the Ministry of Religious Affairs of Indonesia.

• As part of the promotion project, we would like to establish "GHCC Training & Consulting" in Jeju Special Self-Governing Province to promote the project with the headquarters of Jeju Special Self-Governing Province for all education and training, human resource development, and technical consulting on global halal.

• Through "GHCC Training & Consulting", we expect Jeju Special Self-Governing Province to be at the center of promoting trade and tourism through the international halal network and implementing halal education programs in Korea and Indonesia.

The Halal with GHCC

- The halal industry is constantly developing into a broader concept of the Islamic economy, an economic activity that follows the Islamic-based principle. As a populous Muslim country, Indonesia follows the growth trend by aiming to dominate the global halal market.

- The strategy is to improve the current halal certificate assurance process. Presently, the technology and procedure do not provide enough process transparency, traceability, and granularity of information. To achieve the strategic goal, a technological change is needed.

- A new emerging technology, AI System, may potentially answer the challenge. This Project first objective is to discuss improving the current assurance practice in the Indonesian halal certification and supply chain ecosystem.

- The second objective is to construct a traceability system model for the supply chain. Our goal is to propose a AI System-based halal traceability system model. The model can be enhanced to be a national standard tool to develop the economy towards a sustainable supply chain.

- **1. Introduction**

- Indonesia is the largest Muslim country globally, with a majority of the citizens being Muslim. There are around 1.8 billion Muslims worldwide and 300 million in Indonesia. The market opportunity is USD 1.9 trillion, and the domestic opportunity aggregate is USD 184 million. The government bodies under the ministry of religious affairs are tasked to regulate and maintain the implementation of sharia law in Indonesia to fulfill the halal requirement, especially in the food supply chain. Halal food is any food consumed by Muslims and must follow the guidelines and observances of Islamic law.

- There are three bodies involved in halal food assurance. The first, *Majelis Ulama Indonesia* (MUI), is the Indonesian Islamic scholarly body providing legal measurements. The second, *Badan Penyelenggara Jaminan Produk Halal* (BPJPH), provides halal certification. The third, *Lembaga Pengkajian Pangan, Obat-obatan, dan Kosmetika Majelis Ulama Indonesia* (LPPOM MUI), tests, verifies, and validates food halalness. At the decision, MUI serves a sitting to justify whether a business entity may or may not receive a halal certificate. The halal certificate published by BPJPH acts as proof that any business has justified its production operation in compliance with sharia law or halal principles. The certificate expresses that halal bodies guarantee the company produces halal products, which gives a guarantee to the market.

The current Indonesian vice president, Ma'ruf Amin, states that Indonesia should aim to dominate the global halal market.

In this regard, Indonesia should participate in constructing and supporting the development of the halal value chain across nations while being a center of the sharia economy across the globe. The ambition lies in the Indonesia Sharia Economy Masterplan (SEM)

One of the strategic plans to achieve the goal is to enhance Indonesia's digital economy and halal value chain. Some of the programs to support it are the halal hubs in each district/province, halal certification, and an integrated halal traceability system. For the time being, an established program is a halal certification. A halal certification even reached the SMEs in Indonesia, providing halal assurance towards products in their market. In current practice, the three halal bodies provide a halal warranty by making businesses put halal logos on their products. Additionally, consumers can check the halal product status on the MUI official website.

However, there are some drawbacks to the current mechanism. First, the detailed information about halal products is only available by one of the halal bodies, LPPOM MUI.

The second is the centralized food processing tracking system, resulting in less transparent information on food and only being accessible by those who own the data and control it. The problem complexity grows if we include the possibility of late information updates on the current MUI official website. Thus, developing a verifiable, safe, transparent, shared, or distributed database is essential to store halal supply chain information activities Combined with Indonesia's vision to dominate the global halal market and the current mechanism issue, this becomes the urgency for GHCC.

- The contribution of this study is an improvement of the halal certification and traceability model for the current state in Indonesia. First, we build data attributes based on Indonesia's process of certificate supply to AI system.

- Second our GHCC design *on-chain* processes of the system with intention of showing the whole mechanism on each different level. Our proposed model complements the previous work.

- From GHCC, we top off the model by reducing the number of participants on the blockchain network, thus constructing an original block structure. AI model, we bring it to perfection by designing the model to be on a private blockchain ecosystem since it offers better participant management. Additionally, from GHCC model, we involve halal bodies in the blockchain network to complete the model.

- A further contribution is analyzing and comparing blockchain infrastructure candidates for future research goals, testing model feasibility, the transaction cost, and discussing constructing the model on an open-source platform or developing an original blockchain environment from scratch.

- The first use case of AI technology is in the financial domain, such as cryptocurrency to handle peer-to-peer transactions. Blockchain can make an immutable record, robust to data alteration or tamper-proof, thus providing consistency across the network.

- AI system is also decentralized, combined with the character of immutable records, which results in transparency between members of a network. The idea of implementing blockchain in various industries has exponentially gained popularity recently. For example, AI system is used to provide a secure and reliable property registry system blockchain is implemented to prevent counterfeiting in the wine industry

- Also,AI acts as a tracking mechanism in smart cargo transportation and blockchain provides data integrity in agriculture

- The mentioned ideas prove the expansion of AI technology applied beyond the financial industry.

• *Halal Industry*

•   Halal is a status Muslims give for any action permitted by sharia law, while the opposite of this term is haram. For decades, Muslims worldwide believed they could only consume what goes with the word halal. There is a market for halal products or services among Muslims. The halal industry comprises seven core sectors: food and beverage, finance, clothing, tourism, media, pharmaceuticals, and cosmetics

•   In 2019, Indonesia's government established a transition period for the business entity to obtain the halal certificate for their products based on their respective categories. For the food and beverages categories, the transition period ends in October 2024; this strategy aims to realize halal assurance according to Act Number 33 of 2014 concerning Halal Product Assurance). To reinforce the strategy, a new halal certification law was issued; the new law is Government Regulation 39 of 2021. Under the new law, the halal certification assessment covers the materials and production process (storage, packaging, display, and sales) of a product—such regulation made it possible for the halal industry to develop innovation.

•   As a country with a Muslim majority, Indonesia has a halal industry. There are manufactured products with halal logos, meaning the products are halal and guaranteed by halal bodies in Indonesia. In 2020, Indonesia became the leading country as the largest halal consumer market in the world, with a total amount of consumer spending worth USD 184 (billion), whereas USD 135 (billion) comes from the food and beverage sector. While the other sectors' worth (in billions of dollars) is as follows: media (USD 20.3), fashion (USD 15.6), pharmaceutical (USD 5.13), cosmetics (USD 4.19), and tourism (USD 3.37

Halal Supply Chain

• To support the existence of the halal industry, a supply chain that abides by the halal term was laid, known as the halal supply chain. The introduction of halal evolution in supply chain management led to compliance with the halal term. In this supply chain lies a guarantee on halal integrity, so Muslims can rest assured with the consumption of their product. This supply chain is about the halal and haram of a product. Supply chain activities on the halal supply chain are no different from other chains, such as sourcing, transporting, and warehousing.

• In Indonesia itself, MUI acts as a body to issue a fatwa (religious order) based on sharia law on a particular matter. To proceed with the task, BPJPH acts as a halal certification body that issues halal certification to businesses and then publishes halal certificates after MUI has made the fatwa. While MUI declares a sitting to make a fatwa, another body, LPPOM MUI, analyzes components of a business's products to determine halal and haram in the certification process.

• As the main halal body in Indonesia, MUI inspects the halal compliance of slaughterhouses with three mechanisms: an audit each semester, an impromptu inspection, and the expiration date of the halal certificate in certain facilities such as slaughterhouses. From the three joint mechanisms that exist, a public webpage contains information about products that have been verified by MUI and identified as halal products. The verification process was conducted by assessing a particular operation on the business based on specific regulations in Indonesia, which are HAS 23000

- On the final application, we might expect more data attributes in the block structure than we currently propose,. We also presume that in the early implementation phase, the number of transactions will be lower than the standard AI capabilities, as mentioned by GHCC. Nevertheless, we must prepare that the application can handle large-scale transactions, or what we call scalability features. As the number and type of stakeholders grow, we expect to increase data records and retrieval, not to mention the need for a real-time meat status report.

- There are several node types involved in the process. The node could be the stakeholder, or the dedicated computer system involved in the data record process, transaction validation, and propagation of the latest update to the ledger. The first type is undoubtedly the stakeholders to publish the data. The second type is the stakeholders to validate transactions on the network. The last type is stakeholders to record all the data, such as retailers and distributors.

- Based on the analysis of the digital platform comparative features the halal supply chain characteristics, we recommend developing the proposed model using the Avalanche platform. The reasons are:.

- It is a much cheaper certification and transaction cost compared with the network.

- It can support the development of permissioned AI system, which requires that each actor/stakeholder obtain the license to operate inside the network. This governance can also limit the right of each stakeholder on the go.

- It is suitable to support different types of stakeholders, including miners or validators, to validate a chosen transaction.

- To develop such a crucial system on an open-source platform or build our own blockchain from scratch, we may consider a few things. First, there might be a possibility of 'hidden cost', which commonly exists on the open-source platform. When we build a system atop an open-source platform, it is probable for an attacker to gain advantage of it. It is highly likely for them to create an 'attack' from the same platform. Second, the model is designed for Indonesia's supply chain, making it important for the data to be kept inside Indonesia's domain. A self-designed GHCC AI network allows Indonesia to gain firm control over sensitive information through data sovereignty. Therefore, it is preferable to build our own blockchain network. Still, our own AI halal system is plausible to underperform compared with the existing open-source platform.

- "GHCC JEJU T&C"
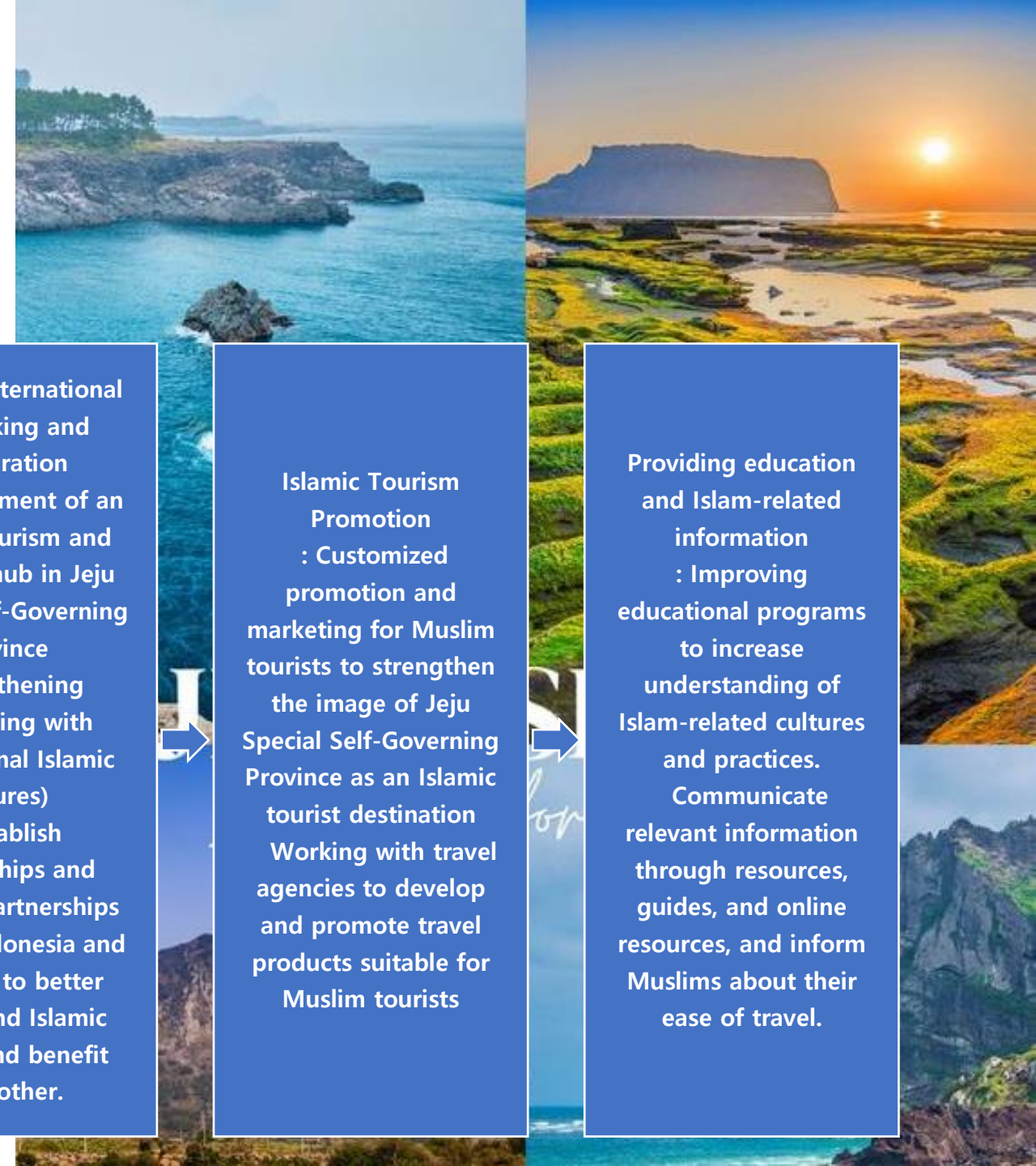**Expected effect of the establishment of Jeju Special Self-Governing Province**

- **Partner Introduction – Muhammadiyah, Indonesia**

• ❍ Muhammadia is one of the most influential Muslim organizations in Indonesia.
   The association plays an important role in the religious, educational, social, and cultural development of Indonesia.

• ❍ Muhammadiah Affiliated Agencies

• Muhammadiyah University Network (Jaringan Universitas Muhammadiyah, JUM)
: The Muhammadiyah University Network, which consists of a network of universities run by this organization. The network includes universities that teach a wide range of academic disciplines.

• Muhammadiyah Hospitals (Rumah Sakit Muhammadiyah)
: A medical institution run by Muhammadiyah, which provides medical services in various parts of Indonesia.

• Muhammadiyah Education Institutions (Lembaga Pendidikan Muhammadiyah, LPM)
: An educational institution in Muhammadiyah, which includes a variety of educational institutions from elementary to high school.

• Muhammadiyah Social Institutions (Lembaga Sosial Muhammadiyah, LSM)
: An organization that aims to provide social support and social welfare, and operates programs such as support for the poor, disaster relief, and education for women and children.

• Muhammadiyah Cultural Institutions (Lembaga Kebudayaan Muhammadiyah, LKM)
: An organization that supports and sustains cultural activities and arts programs, with a focus on promoting cultural values and the arts.

Development of Jeju Special Self-Governing Province Sustainable New Growth Engine

■ **Through collaboration with GHCC T&C**
Development of new sustainable growth engines in Islamic culture

Strengthening Halal Infrastructure and Services:
Strengthening and expanding the infrastructure to provide halal food and services for Muslims Restaurants, hotels, and tourist attractions in Jeju can provide halal-certified products and services to increase the satisfaction of Muslim tourists.

→

Promote cultural exchange and understanding
: Promote cultural exchange and mutual understanding between local residents and Muslims Cultural festivals, educational programs, and events to introduce various Islamic cultures promote understanding among the community and create an atmosphere that celebrates diversity.

→

Enhance international networking and cooperation
: Establishment of an Islamic tourism and business hub in Jeju Special Self-Governing Province (strengthening networking with international Islamic cultures)
Establish partnerships and develop partnerships such as Indonesia and Malaysia to better understand Islamic culture and benefit each other.

→

Islamic Tourism Promotion
: Customized promotion and marketing for Muslim tourists to strengthen the image of Jeju Special Self-Governing Province as an Islamic tourist destination Working with travel agencies to develop and promote travel products suitable for Muslim tourists

→

Providing education and Islam-related information
: Improving educational programs to increase understanding of Islam-related cultures and practices. Communicate relevant information through resources, guides, and online resources, and inform Muslims about their ease of travel.

GHCC T&C"

- Establishment of a 'self-sufficient facility' that combines Work, Live, Play, Create, and Learn
- Establishment of a 'futuristic AI facility' with state-of-the-art digital platform

Building an AI System,
For Future Talents

GHCC AI,T&C
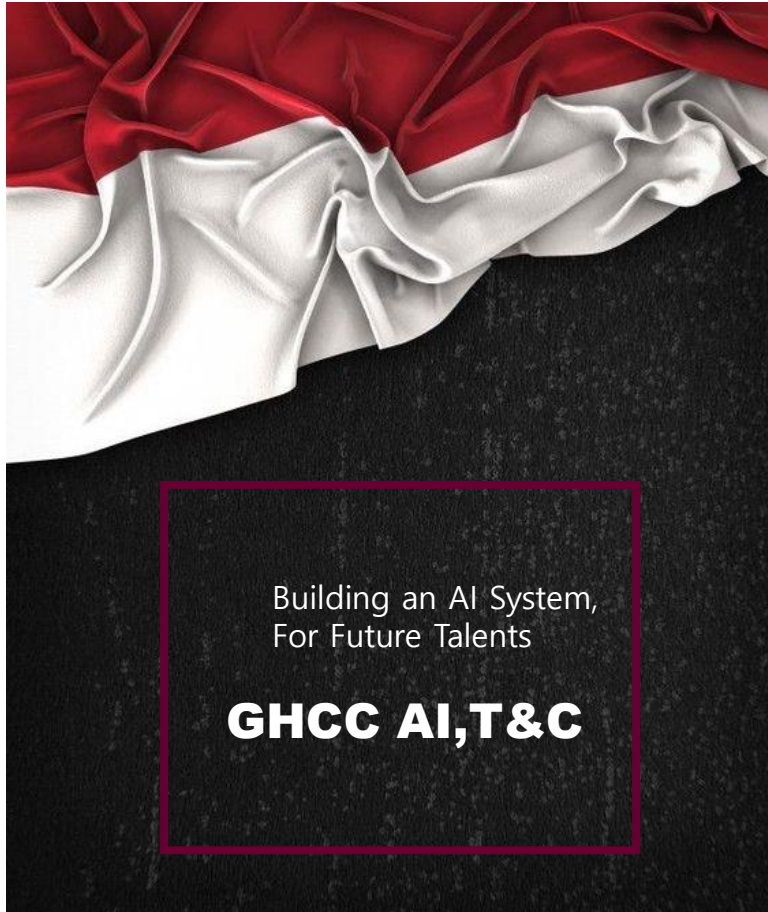
Work
- AI Future Technology Graft-based Global Halal Cluster
- Establishment of eco-friendly system Eco-halal education
- Social and Environmental Support System for Future Talents

Live
- Educational Facilities in Blessed Nature
- High-density, medium-density, appropriate nvironment
- Various amenities for companies, trainees, and entertainment

Create
- One-stop service for new products and employment
- Building a global cooperative world through a global network
- Convergence ICT Support Service

Learn
- Nurturing Prepared Smart Future Industry Talents
- Practical education for international education through digital platforms