INDUSTRIAL TALK 3

NEWSLETTER

TECH-DRIVEN INNOVATION:

UNLEASHING THE POWER OF EMERGING TECHNOLOGIES FOR BUSINESS GROWTH IN URBAN FARMING SOLUTION (I-FARM)

Speaker: Dr Seah Choon Sen
Date : 14th January 2024
Time : 2.30pm -3.30pm
Venue: Webex

Benefits:
- UTM Merit Provided
- Learn from Malaysia's No.1 soccer startup on how to leverage technology and innovation for business growth

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SUMMARY

The current challenges faced by consumers, traders, and retailers in the traditional grocery supply chain emphasize the need for innovative solutions. The proposed Fresh Products E-Commerce Marketplace with Inhouse Vertical Farming technology, addresses these issues comprehensively.

Socially, it enables easy access to fresh produce, supporting social distancing. Environmentally, it minimizes weather impact, reduces energy use, and is eco-friendly. Economically, it aligns with sustainable consumption, reducing wastage and promoting resilient infrastructure. Overall, it offers a transformative, sustainable, and accessible solution to traditional food supply chain issues, paving the way for innovative approaches in daily life.

TECHNOLOGIES

Internet of Things (IoT): help monitor plants growth and make growing process easy

Machine Learning: help identify suitable environment variables for the plants or specific type of plants (can limit size of the plants). This helps users choose vegetables that are suitable for them and see themselves for the plant growth. This has been found to help bonding between parents and children. Additionally, they could also be involved in the process of growing.

Online Platform: controls and monitors directly of their plants in the i-Farm platform.

Alibaba Cloud service: run Machine Learning

ISSUES

- Shortage of fresh vegetables due to Movement control order MCO
- Consumers need to obey social distancing and wait in the long queue to purchase groceries at the supermarket
- Traders would not be able to carry heavy crates of vegetables on their own. Limit labor due to dependence on migrant workers.
- Citizens should get used to the new normal, practice self control and avoid crowding and congestion at any place even if MCO lifted

SOLUTIONS

I-Farm, an integrated urban farm in the residential area for residents to purchase the vegetables and pick up nearby.

- easy to order, short distance delivery
- radical transparency of the growing process
- highly maintain the freshness of vegetables

REFLECTIONS

Harresh

Dr. Seah Choon Sen's captivating presentation on urban farming, i-Farm, and business growth opened my vision to the practical applications of IoT and machine learning in agriculture. The talk emphasized how these innovations address real-world challenges, particularly during events like the Movement Control Order in the COVID-19 pandemic. I gained valuable insights into how modern technologies contribute to increased efficiency, sustainable practices, and enhanced food security. This realization has motivated me to explore this subject further, recognizing its potential to revolutionize agriculture and positively impact human life.

Jocelyn

This talk provides valuable information about the importance of technology to humans. For example, cloud computing helps I-Farm to store and retrieve large volumes of data and IoT are employed in agriculture to monitor and control farming processes. IoT also ensures transparency in the supply chain, allowing consumers to trace the origin of their vegetables and farmers to monitor the status of their shipments. By bringing the market online, users may have easier access to a wider variety of produce, potentially sourced directly from farms. This also reduces environmental impact through optimized resource usage and minimized waste.

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Muhammad Thaqif Ammar bin Muhamed Sufian A23CS0251
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Tina

This presentation on urban farming solutions, i-Farm and business growth was very fascinating and educational. Having recently finished my TIS exam preparation, I found it really interesting to discover the theoretical terms I studied were used in the discussion. My interest is maintained in large part by the manner in which Dr. Seah Choon Sen delivers the talk. I can now see how IoT is being applied to actual technologies and the fact that machine learning is being employed in farming startled me a little. Thanks to this talk, my eyes have been opened to the way that modern technologies have been developed and how helpful they are to us on a daily basis. It also makes it clearer to me why I should learn this subject matter, particularly on that specific topic.

Thaqif

The alternative created was so sufficient and pragmatic that it changed 180 degrees of our way to approach food supply and consumption. As we can see the integration of vertical farming not only solves the problem but also aligns with our purposes to emphasize sustainable practice. What captures my eyes is how the farming solutions are well planned and very detailed to ensure the success of this project. Overall, Dr. Seah Choon Sen's approach the situation in every aspect including social aspect, environmental and economic aspect that offers sustainable future in food production and distribution. I hope that I could encounter a problem that could give me the opportunities to solve it with efficient ways and give benefits to society.