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

# **M**-farm

Sunday, January 14, 2024

### **TECHNOLOGY**

#### **Vertical Farming:**

Growing crops in stacked layers to maximize space and yield, especially beneficial in controlled urban environments.

#### Internet of Things (IoT):

Interconnected devices gathering data for precise monitoring and control of farming conditions, ensuring optimal crop growth.

#### **Hydroponic Farming:**

Soil-less cultivation in nutrient-rich water, providing an efficient and controlled environment for plant growth.

### **Business Model**

- Farm operates through vertical farming using IoT (Internet of Things) and data analytics.
- Utilizes machine learning to optimize plant growth cycles and reduce time to harvest.
- Implements an online platform for users to monitor, order, and even participate in the farming process.

# Summary

Dr. Seah Choon Sen delivered a compelling talk on "Unleashing the Power of Emerging Technologies for Business Growth in Urban Farming Solution (I-Farm)." He shared his journey of transforming an initial idea into a real business, focusing on Precision Farming. Dr. Seah introduced I-Farm. a solution aimed providing fresh at vegetables to urban residents, addressing the challenges faced during the COVID-19 pandemic. The talk covered the business model, social impact, value proposition, market segmentation, and future plans of I-Farm.

## **Social Impact**

- **Environment**: Reduces carbon footprint through local supply, minimizes waste with hydroponic farming.
- **Social**: Enhances food security, ensures quality, and promotes a transparent, reliable food source.
- **Economic**: Promotes a sustainable and responsive market supply, reduces food waste, and supports local farmers.







NURIN IZZATI BINTI MOHD RASHIDIN A23CS0161



FOO MING KUANG A23CS5026



Rifat Ahmad Khan A22EC8006

# REFLECTION

### FOO MING KUANG

Dr. Seah's talk on urban farming technology sparked my motivation by showcasing the transformative potential of vertical farming, IoT, and hydroponics. The integration of these innovations not only maximizes space but also ensures fresh, locally sourced produce with realtime monitoring. This approach not only addresses urban agriculture challenges but also promotes sustainability and transparency in food production. The insights gained highlight the positive impact of technology on fostering healthier and more sustainable lifestyles in urban communities.

### TAY WEI CHENG

Dr. Seah Choon Sen's talk underscored the transformative potential of precision farming, especially in the context of the COVID-19 pandemic. I-Farm's innovation, combining vertical farming, IoT, and data analytics, aims to provide fresh vegetables to urban residents. This technology-driven solution not only optimizes crop growth but also reduces the carbon footprint, supports local farmers, and ensures food security. In essence, the talk emphasized how I-Farm positively impacts human by addressing critical needs, fostering contributing transparency, and sustainability in urban farming.

### NURIN IZZATI BINTI MOHD RASHIDIN

I was inspired and able to extend my viewpoint on the world of technology at I-Farm by Dr. Seah's speech. I gain greater knowledge about how technology actually used in farming. I am able to examine in-depth the Internet of Things, hydroponic, and vertical farming techniques utilised in this sector. The urban farming sector benefits from this line of thinking as well, especially in light of the Covid-19 pandemic. I can see that this I-Farm has a big effect on the economy, society, and environment. For example, how it promotes a decrease in food waste, a consistent source of food, and a lower carbon footprint.

### RIFAT AHMAD KHAN

Attending Dr. Seah's discourse on urban farming technology deeply resonated with me, unveiling the profound impact of vertical farming, IoT, and hydroponics. Witnessing the seamless integration of these advancements underscored the potential to optimize space while guaranteeing access to locally sourced, monitored produce. This strategy not only tackles urban agriculture hurdles but also champions sustainability and transparency in food production. The gained insights emphasized the transformative influence of technology in cultivating healthier and more sustainable lifestyles within urban communities.







NURIN IZZATI BINTI MOHD RASHIDIN A23CS0161



FOO MING KUANG A23CS5026



Rifat Ahmad Khan <u>A22EC8</u>006