



台灣物聯網協會

Taiwan Internet Of Things Association

Trends in IoT Industry Applications

Spencer Liang - President of TIOTA



Taiwan Internet Of Things Association

President Liang founded the first IoT association in Taiwan



Market Trends Analysis



Event Exposure



Professional SIG Operation



Interdisciplinary Interaction



Government Cooperation

Core organizations and Operation platforms of TIOTA :

SIG Committee

CEO Club

Commercial Alliance

Advisory Group

Digital Academy

Media Platform

Learning Platform

Marketing Platform

- Participated over 250 seminars, 100 exhibitions
- Hosted over 30 corporate visits
- Allied with over 30 enterprises
- Accomplished over 50 IoT projects
- Main projects : Smart Agriculture, Smart Manufacturing, Smart City, Sharing Economy, Long-term Care, Decentralized Finance, Metaverse

The Most Active IoT Association in Taiwan



Paragon Awards
Paragon Awards established in 2017, to exchange global IoT technique, and commend outstanding enterprises in IoT or smart service fields



A Metaverse Factory with IoT

Creating a highly realistic **digital virtual factory** with IoT and AI technologies.



Digital Twin

A digital twin is created by integrating feedback data from the IoT and computing via AI and machine learning. This digital representation learns from the feedback data and dynamically reflects the real-world situation within the digital realm. It can be applied across various industries to shorten product development cycles, reduce maintenance expenses, and enhance service quality.

Reducing production costs



Simulating the research and development process in a virtual factory



Deploying production on the assembly line



Reducing trial and error & labor costs

Breaking through spatial and temporal constraints.



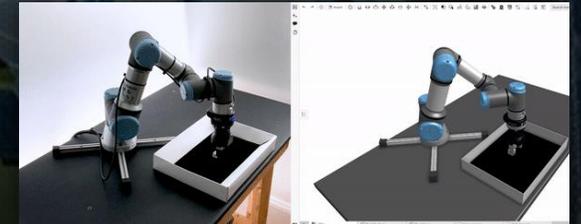
Machine malfunction



Remote technical support for virtual maintenance training



Workers perform actual machine repairs





Diverse Vertical Applications of IoT

Public Applications

Number of Devices: 1 Million~10 Million



Public Applications:

- 1. Smart Transportation:** Public transportation, fleet management, traffic monitoring
- 2. Smart Energy:** Solar power, wind power generation, smart energy storage
- 3. Smart Security:** Disaster-resistant bridges, water quality monitoring, earthquake detection
- 4. Smart Agriculture:** Environmental monitoring, pest and disease control, disaster prevention, traceability in production and sales

Enterprise Applications

Number of Devices: 100-1 Million



Enterprise Applications:

- 1. Smart Manufacturing:** Production scheduling, dispatching management, equipment management
- 2. Smart Healthcare:** Remote healthcare, AI medical assistance, surgical simulation
- 3. Smart Buildings:** Smart energy management, security monitoring, green building

Home Applications

Number of Devices: 10-100



Home Applications:

1. Smart Household Appliances:

Remote control, security monitoring, energy-saving control, robotic vacuum cleaner

Personal Applications

Number of Devices: 1-10



Personal Applications:

1. Smart Devices:

Smartphones, Smartwatches, Smart Glasses



Smart City Application

Smart Long-term Care

Monitor elders' safety(falling down) through AI thermal imaging camera
Solve the labor shortage issue in long-term care institutions

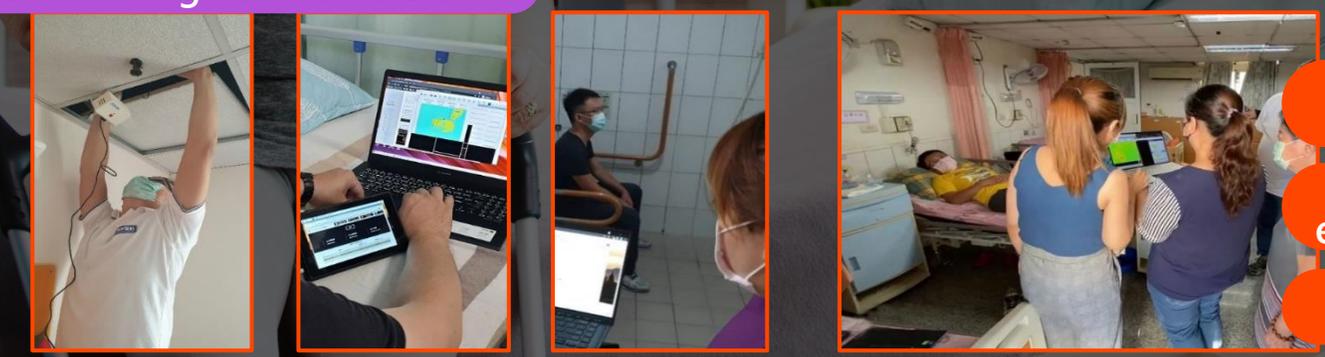


- Labor shortage in care institutions
- High risk of falling down
- Market product cannot detect the movement of getting out of bed
- Right of privacy limited the monitor application
- Couldn't afford the technology cost



Smart City ESG Long-term Care

- Improve the competitiveness
- Increase the employment willingness
- Assure the elders' safety





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The End

TIOTA Cooperates With You

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