

Eureka clusters AI call Brokerage Event, 22nd April, 2021



**Faster Innovation,
Bigger Market**

AI based Fire Protection System - Design Solution

'&'

AI Wayfinding Crowd Control/ Evacuation Simulation

Proposed by **KF UBIS**

Company Profile



Company Name **KF UBIS Co., Ltd.**

Establish Date **Oct, 10st, 1943**

CEO **Mr. Doo Chan Choi**

Business **Fire Protection Engineering
Construction Supervision/Management
ICT Research & Development Lab**

Location **Seoul, South Korea**

Capital **-**

Web site **www.kfubis.com**

Employee **270**

Contact Person



Name: **Choi, Doo Chan**

Title: **CEO**

Department: **Research & Development**

E-mail : **cdc4111@kfubis.com / doochan27@hotmail.com**

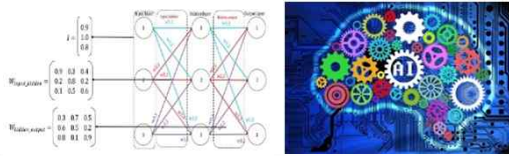
Phone Contact: **+82-10-9069-4022 (mobile), +82-2-2023-5180 (office)**

Purpose 1.

AI based Fire Protection System - Design Solution

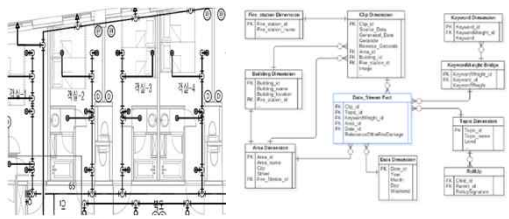
01 Algorithm on Neural AI

- Design and survey on AI data



02 Fire safety design solution

- AI drawing on fire design

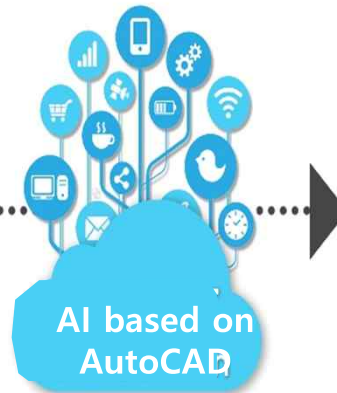
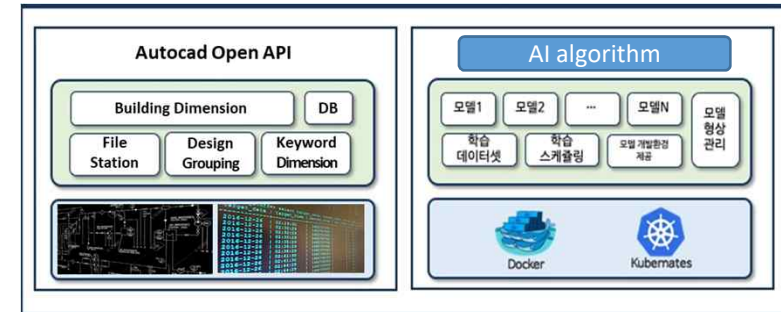


03 Certification system on AI of Fire safety design

- Certify the AI system on fire desing of building



AI recognition on design concept and drawing



AI based

Automation drawing



Reliability of AI design

Process

The 1st Proposed Project Aims to Develop AI Based Fire Protection System Design Solution Analysis Building Architectural Information including Related Codes/Standards for Creating Automatically Fire Protection System Design Drawings.

- **Analysis Various European and Korean Building and FP System Codes/Standards to AI Input Parameters**
- **Develop AI Algorithm for FP System Design based on Building Information Analysis**
- **AI Solution will recognize Autocad floorplan and create Fire Protection System Design Drawing**
- **Establish International Cooperation Organization or Cluster for AI Certification and Standard**

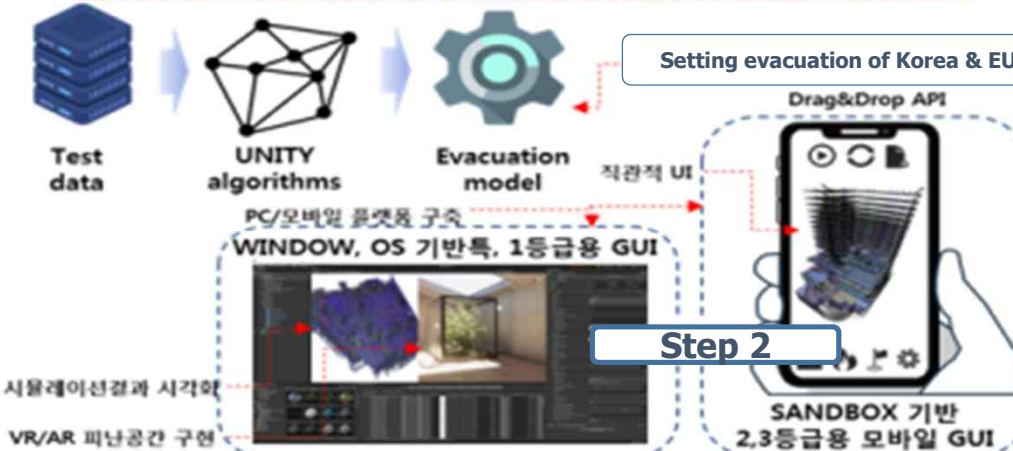
Purpose 2.

AI Wayfinding Crowd Control/ Evacuation Simulation

Step 1



DRAWING CONVERT TO 3D RENDERING OBJECT in UNITY



Step 2

ARTIFICIAL INTELLIGENT ALGORITHMS TRAINING & DEVELOP GUI

Step 3



CONDUCT VERIFICATION&VALIDATION + SUPPLY



Process

The 2nd Proposed Project Aims to Develop Crowd Control/Evacuation Simulation including Evacuation Pattern Learning based AI Algorithm for Safe and Reliable Wayfinding in Disaster Situation such as Fire.

- **Research AI Learning of Various Cultural Human Behavior, European and Korean Body Size for Crowd Control Analysis**
- **Develop AI Algorithm Reflects Real-Life Evacuation Movement during Fire and Overcome Existing Evacuation Simulation Limitations.**
- **Develop AI Wayfinding Crowd Control/Evacuation Simulation Solution**

Expectation

- To develop the AI design solution for AutoCAD drawing on active fire protection system is the state of art – AI technique.
- Relative company and institute can be widely used without human error in designing Active fire protection system in building
- In spite of physical and sociological difference between Europe and Korea, AI output of our project can be applied in various field

Possible Partner Profile

- Type of Partner Needed
 - SME or Research Institution**
- Required expertise
 - **EGOLF member or Standardization**
 - **RISE in Sweden,**
 - **Centre for the Development of Industrial Technology in Spain**
- Roles in the project
 - **ICT or S/W analysis of AI algorithm**