



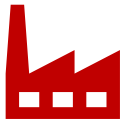
The first approved **Disaster Safety Products**  
by the  Ministry of the Interior and Safety

Smart Safety Equipment **IBOT SYSTEM**



**SUNJIN ERS**

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# ▼ 1. Company Details

We dream of becoming a leader in the blue ocean disaster safety industry market

**with value to protect people's lives.**

CEO	Kang Haeil
Date of Establishment	2014Y
Business	Disaster safety products and services
Promotion Project	Construction site, Engineering, Public institution, Industrial enterprise, etc
HQ	Room 104/ Room114, 365, Sinseon-ro, Nam-gu, Busan, Republic of Korea
R&D Center	BSI-ZONE, 232, Asiad Boulevard, Dongnae-gu, Busan, Republic of Korea
Tel	+82 (0)51 – 629 – 7425
E-mail	haeili@sjers.com
Website	<a href="https://www.sjers.com/">https://www.sjers.com/</a>





## 2016

### Acquired Venture Business Certification

- ✓ Establishment of company subsidiary research institute.
- ✓ Moved to Pukyong National University as Industry-academic consortium.
- ✓ Registration of LED lighting manufacturing factory.

## 2017

### Awarded New Technology Innovation, Busan

- ✓ SUNJIN LED CO., LTD Corporate Establishment.
- ✓ Selected as Representative Start-up company of Busan.
- ✓ Excellent Prize of KCCI Outstanding Patent Technology.
- ✓ Signed technology commercialization MOU with Vietnam KTG.

## 2018

### Awarded Republic of Korea Safety Technology Minister Prize, Ministry of the Interior and Safety

- ✓ Pukyong National University MOT company support.
- ✓ Selected as an excellent platform company.
- ✓ Moved into Busan Safety Industry-Zone. (BSI-Zone)

## 2019

### Awarded Disaster Safety Products Certification, Ministry of the Interior and Safety

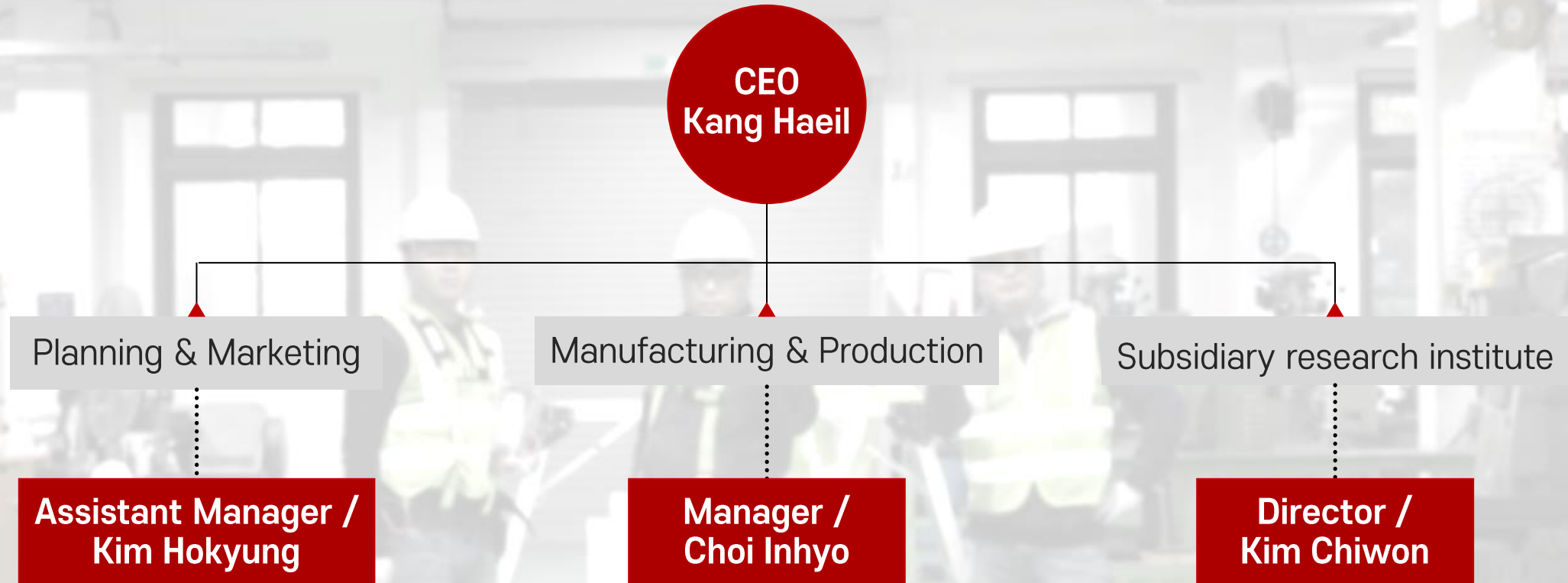
- ✓ Awarded Ministry of SMEs and Startups Excellent Startup Company in Busan.
- ✓ Signed KT, photovoltaic system and IBOT disaster prevention platform project.

## 2014~15

### Established SUNJIN ERS

- ✓ Established Greenhouse Gas Reduction Lighting Business team.
- ✓ Consulting and Construction for Energy Use Rationalization Funds.
- ✓ R&D of Customized Monitoring and Control System Based on Standby Power Recovery System and Facilities.
- ✓ Developed Multi-stage Dimming System for Ceiling LED.
- ✓ Started Korea Energy Corporation Energy Efficiency Support Project.







## ▼ 2. I B O T

( Internet Bluetooth Of Things )

**STEP 1****Build a communication network**

- Integrate the places of communication difficulties into **whole network through mesh Bluetooth network.**

**STEP 2****Real-time perception**

- Detect temperature, movement, emergency button.
- Detect LNG/LPG, carbon monoxide, and flue gas.
- **Smart safety management system** that can be easily constructed in any dangerous area.

**STEP 3****Send Emergency SMS / Monitoring**

- Automatically **send Emergency SMS** to the linked mobile and the district fire department.
- **Real-time monitoring** and confirmation via PC, mobile.
- Tracking dangerous notice and location through monitoring and real-time perception.

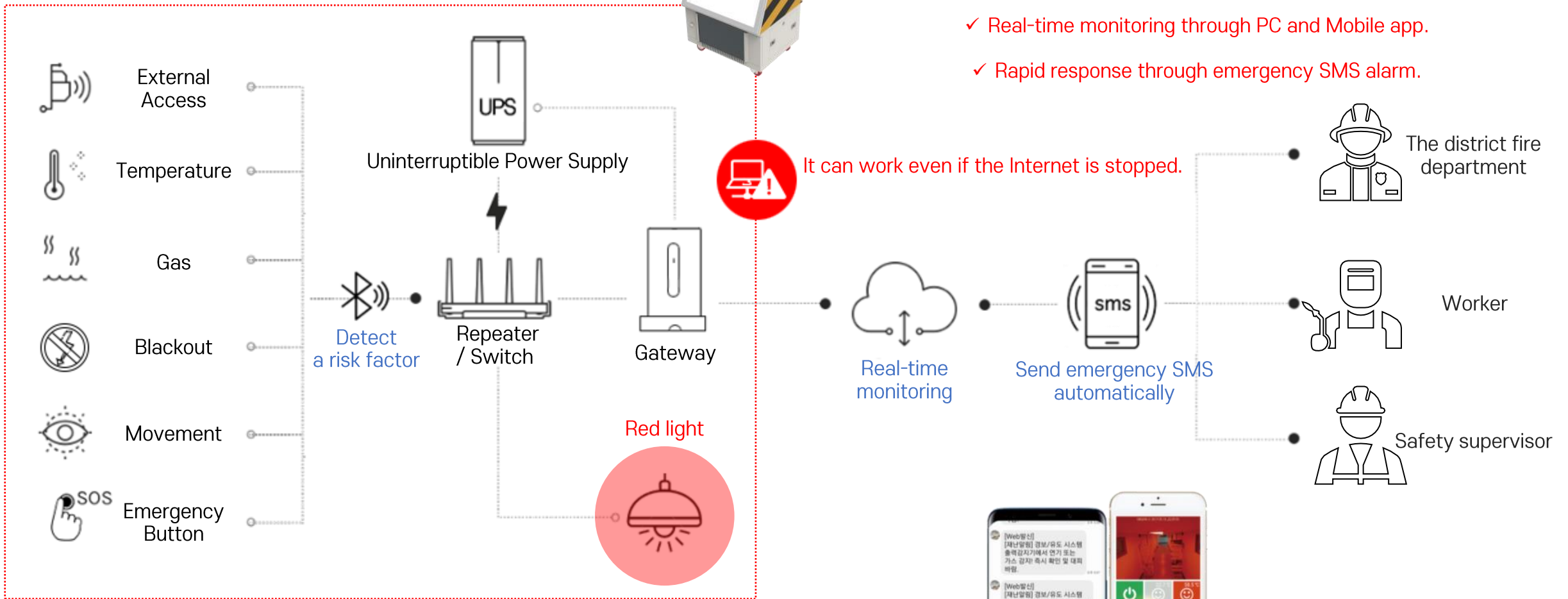
**STEP 4****Whole alarms**

- In the case of emergency, red arrow mark will be displayed and **the siren** will go off making it possible for the administrator to **be aware of the danger immediately.**
- With Uninterruptible Power Supply (UPS), power supply for **up to 5 hours** is guaranteed.

**STEP 5****Data analysis**

- By confirming the data in real time, analyze initial response methods and industrial disaster data.





# Golden Time

✚ Limited time to save people's lives

"The survival rate of industrial accidents depends on **the golden time-5minutes**"



Smart safety  
management through  
SMS and monitoring



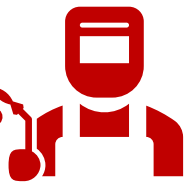
Safety supervisor

## Ensuring the Golden Time



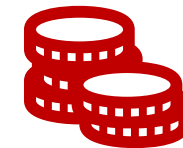
Reduced industrial accident mortality &  
increased SURVIVAL RATE

Not directly worn, and  
quickly evacuated via  
nearby IOT products

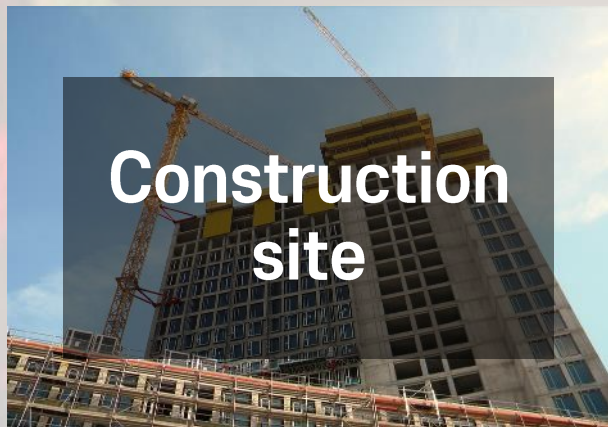


Worker

Smart safety equipment  
verified by the Ministry of  
Public Administration and **can**  
**be purchased on the Safety**  
**management expenses guided**  
**by the Ministry of Land,**  
**Infrastructure and**  
**Transport/Ministry of**  
**Employment and Labor.**



Safety management  
expenses



## Construction site



## Engineering



## Public institution



## Industrial enterprise

<b>Purpose</b> It is available to integrated use smart safety equipment and safety control system.	<b>Purpose</b> Real-time smart alarm and guidance system for worker safety.	<b>Purpose</b> Maintaining the quality of the lighting and it can be changed according to environment or presets.	<b>Purpose</b> Integrated management by effectively using energy saving and disaster budget.
<b>Function</b> It is possible to built portable systems in dangerous areas even if they don't wear them directly. Equipped with various safety convenience systems such as visual detection device / IOT / UPS. Emergency message delivery according to real-time monitoring (CCTV) and IOT detection,	<b>Function</b> Real-time management and record the risk factors in the workplace.	<b>Function</b> Complex control and monitoring system through sensors and control devices.	<b>Function</b> Energy saving and safety accident prevention using IOT multi-detector/response possible.
	<b>Function</b> Initial response possible through real-time monitoring through visual alarm/emergency message. Load IOT/LED disaster lighting/UPS (Uninterruptible Power Supply)/mobile communication terminal.		
		<b>Function</b> Energy saving such as brightness control and ON/OFF using IOT button/application. Prepare safety accident countermeasures with visual alarm by interlocking IOT multi-detector.	

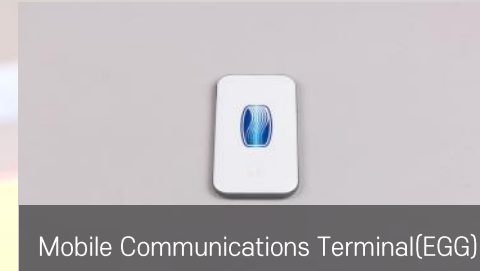




IBOT SYSTEM Outside View Photo



LED Disaster Lighting



Mobile Communications Terminal(EGG)



IBOT Herb / Camera



IBOT All Components



IBOT Output Detector



IBOT Emergency Button



IBOT Repeater / Switch



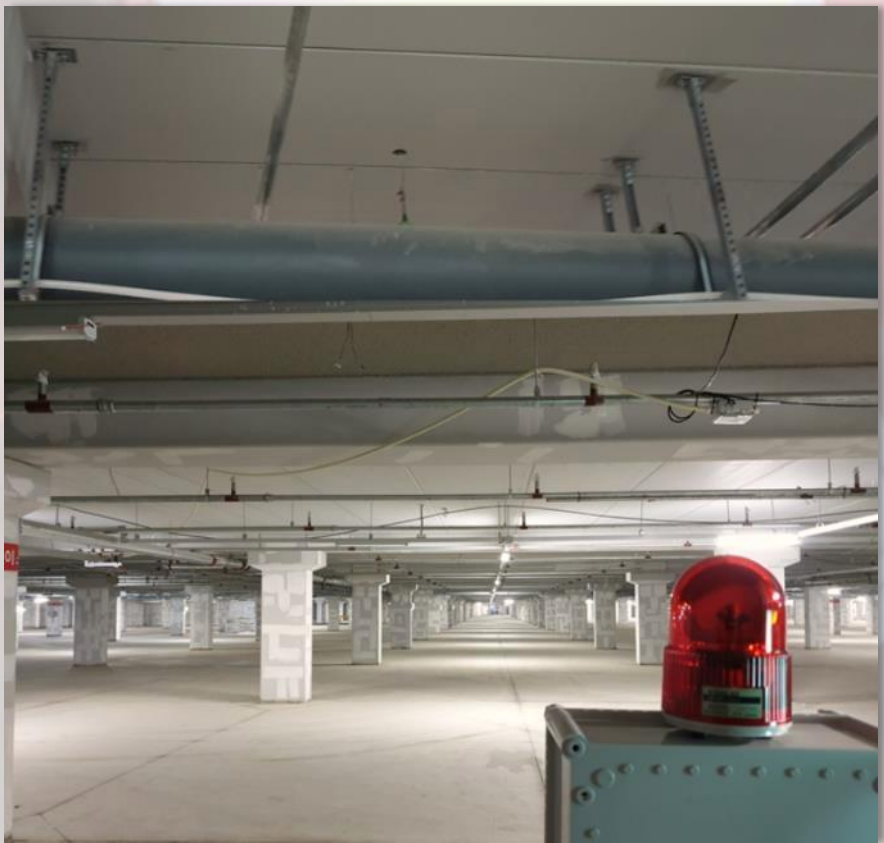
IBOT Multi Detector



Uninterruptible Power Supply (UPS)

GS 건설 Seocho Gran Xi Apartment

Establishing its own wireless network using **the KOREA's first mesh Bluetooth network** to simultaneously implement IOT detection and control and enable real-time monitoring.



2020.07.06 02:18:30

B3S-108-1/3	B3S-108-4/5	B3Y-108-1/3
14.7 °C	21.6 °C	16.2 °C
B2Z-102-1/2	B2Z-102-3/4	B2Z-102-5/6
Closed	Closed	Closed
B2Z-102-1/2	B2Z-102-3/4	B2Z-102-5/6

B2-101동	B3-101동	B4-101동



CJ 제일제당 Busan Factory

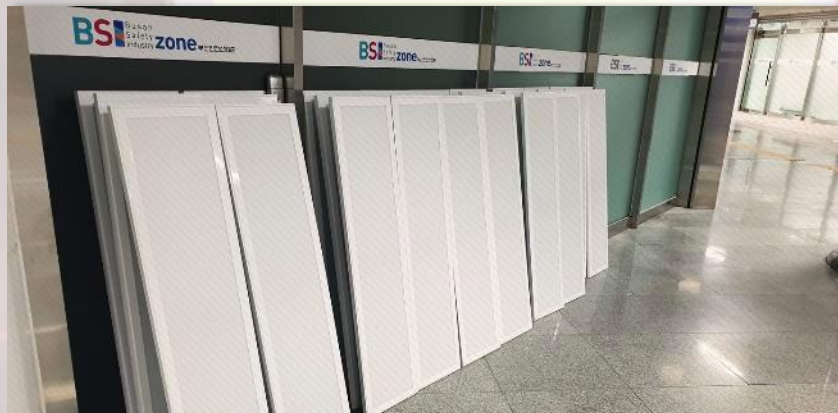
In the situation of a power outage without mobile devices and audible alarms, the red visual alarm can shorten the evacuation time in dangerous situations by 9 minutes.



## BSI Busan Safety Industry-Zone

The IBOT system has been installed in the Busan Safety Industry District, which is a special zone for supporting businesses in the disaster safety field and supporting the safety industry.

As a company that leads the disaster safety industry, **building a network with other companies, the development of demand-based safety technology is also advancing.**





## ▼ 3. Certification

2016,2018Y  
ISO 9001/14001

2017Y  
KC certificate

2017Y  
High-efficiency  
Energy

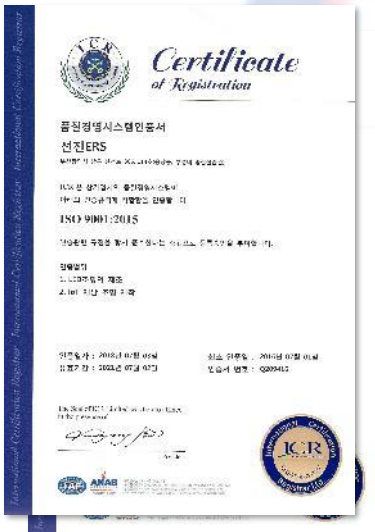
2019Y  
Disaster safety  
product

**KSA** 한국표준협회  
KOREAN STANDARDS ASSOCIATION

**KTR**  
한국화학융합시험연구원  
KOREA TESTING & RESEARCH INSTITUTE

**한국에너지공단**  
KOREA ENERGY AGENCY

**Ministry of  
the Interior and Safety**



**The first approved  
Disaster Safety Products  
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Interior and safety**

## Certificate of Patent



- ▶ Disaster warning
- ▶ Fire receiver
- ▶ Earthquake disaster system
- ▶ LED controller and control method
- ▶ Light-emitting diode light
- ▶ Led using power separation relay

## Certificate of Utility Model Registration



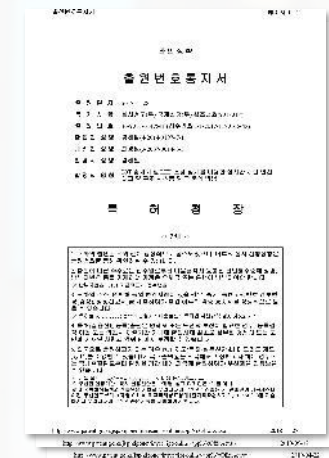
- ▶ PCB Pattern

## Certificate of Trademark Registration

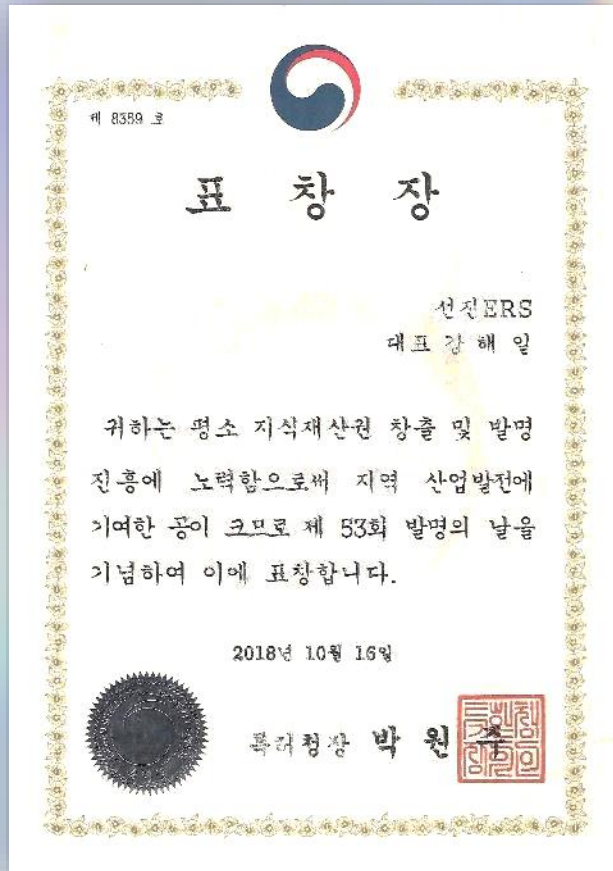


- ▶ IoT Disaster Lighting (KR/EN)
- ▶ Emergency Lighting

## Patent Application



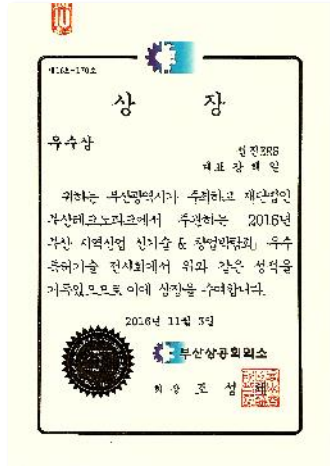
- ▶ Mesh Door lock
- ▶ Mesh Bluetooth
- ▶ Location tracking



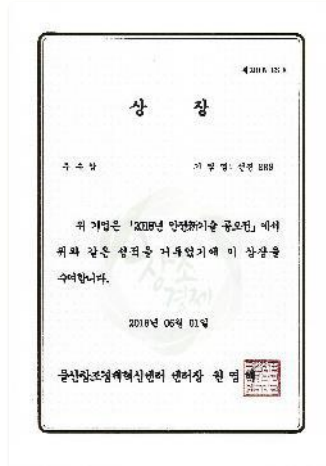
53rd Invention Day  
Awards given by the  
head of the Korean  
Intellectual Property  
Office



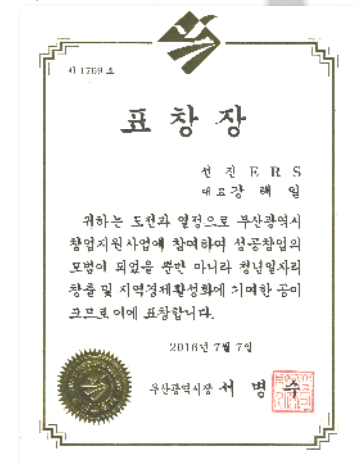
**2016Y**  
**Excellent Start-up**  
**Company - Busan**



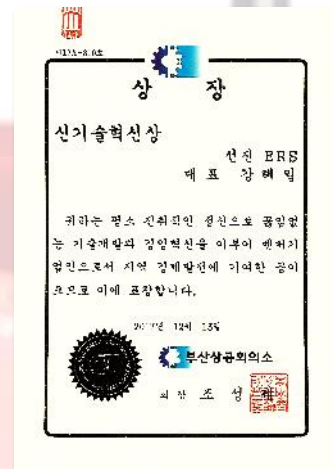
**2017Y**  
**New**  
**Technology**  
**Innovation**  
**Award - KCCI**



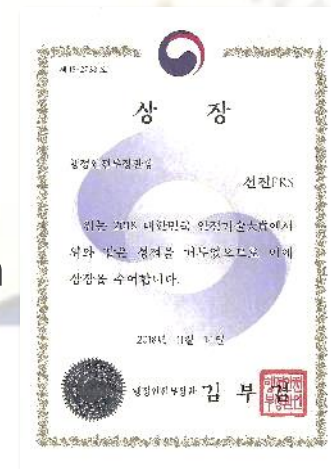
**2018Y**  
**Korea Safety**  
**Technology**  
**Minister Prize**  
- Ministry of  
the Interior and Safety



**2016Y**  
**Patent**  
**Technology**  
**Excellence**  
**Award - KCCI**



**2018Y**  
**Excellence**  
**Award Safety**  
**Technology Contest**  
- Ulsan Creative  
Economy Innovation  
Center



**2019Y**  
**Excellent**  
**Start-up Company**  
- Ministry of  
the Interior and Safety



## ▼ 4. Clients



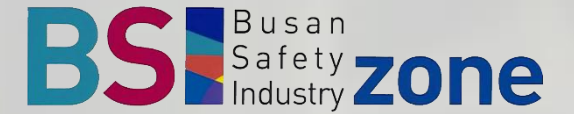
- GS Seocho Gran Xi
- GS Gwangsan Xi



- CJ Busan Factory



- Daegu Expo



- Busan Safety Industry-Zone



- Pukyong National University



- Baeksong High School



- Goyang High School of Arts



서울염동초등학교  
꿈과 끼를 키워가며 세계로 받아가는 행복한 염동인

- Seoul Yomdong Elementary School





# Thank you.

The first approved **Disaster Safety Products**  
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Smart Safety Equipment **IBOT SYSTEM**



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