

# SeerIoE

IoT Service Platform based SeerID

Anyone | Everything | IoE AI

## **Issues & Mission**



### ■ IoT market on the transformative change by 2020

Gartner says, "the IoT (current) market is still at a very early stage, where many aspects of the market are embryonic or even nonexistent." .... By 2020, "the IoT market as a whole will be on only the cusp of the transformative change induced by IoT"

### ■ IoT & Startup

By 2017, 50% of IoT solutions (typically a product combined with a service) will originate in startups less than 3 years old.

### Forecast: The Internet of Things, Worldwide, 2013

 **ARCHIVED** Published: 18 November 2013 ID: G00259115

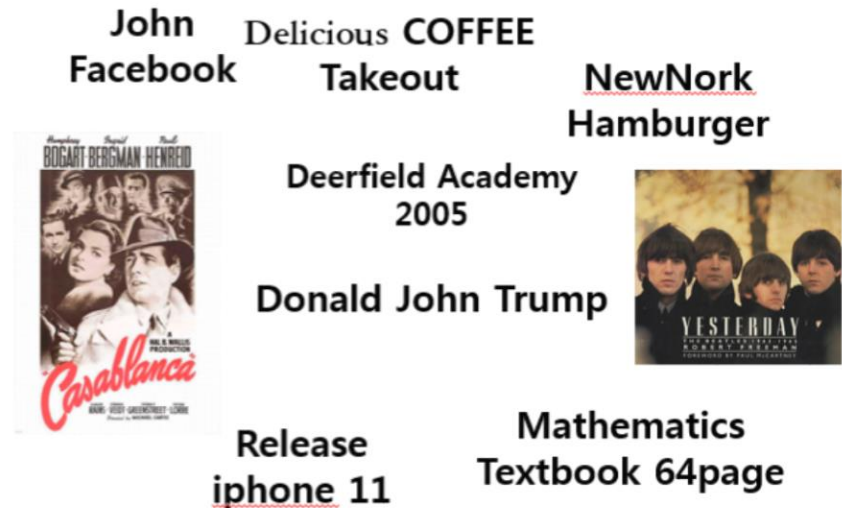
Analyst(s): [Peter Middleton](#) | [Peter Kjeldsen](#) | [Jim Tully](#)

#### Summary

The Internet of Things will include 26 billion units installed by 2020. IoT product and service suppliers will generate incremental revenue exceeding \$300 billion, mostly in services, in 2020. It will result in \$1.9 trillion in global economic value-add through sales into diverse end markets.

### ■ What is Thing by IoT?

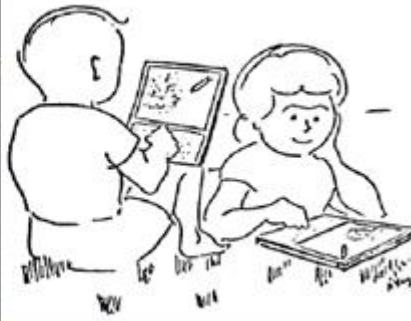
- The existing IoT understands the term "Thing" only as a physical, concrete, accountable thing.
- We suggest that the term "thing" by IoT should include **not only a physical, concrete, accountable thing, but also a unphysical, abstract, unaccountable thing:**  
Idea, behavior, network, voice, image, Artificial thing etc.
- We define these physical and abstract thing as **EVERYTHING** and IoT based on this everything term as **INTERNET OF EVERYTHING**.



## ISSUE : ANYONE

John Citizen may implement the following IoE via allotting SeerID to his own daily trivial small behaviors, Events, ideas, networks etc. everywhere, immediately without costs, special knowledge, and special tools.

**D<sub>IoE</sub>Y**  
**Do IoT Yourself !**



IoT needs a Identifier as a intelligent intermediation among things

I•D•E•N•T•I•F•I•E•R

**Thing**

Identity  
Movement  
Network



**Machine**

Sensing  
Control  
On Internet



**Software**

Operating  
Function  
Intelligence



**Human-Being**

Context  
Intent  
Think



## OUR MISSION

**We have a DREAM for implementing the new type of IoT.**

### ■ **IoT Identifier as Interaction between machine & human being**

Identifier, which maps the operating value of the embedded ICT devices.  
Identifier, which machine and human being can understand together.

### ■ **Everything**

Not only physical, but also everything.

$$\mathbf{IoE = IoT + IoM + IoPR + IoC + IoSW + IoP + IOID + IoBD}$$

### ■ **John Citizen IoE**

Anyone and everybody may implement the IoE via allotting IoT Identifier to his own daily and small things.

### ■ **Implementation of AI Operation**

Implementing Artificial Intelligence via the interaction Function among Sub-components of IoE

### ■ **Algorithm : $2^{128}$**

We want to sequence the number of cases ca.  $2^{128}$  uniquely and conversely to provide the security of a information thing among  $2^{128}$  things.

**SeerIoE**





## ■ What is IoT & Identifier?

We remember again the term Identifier by Wikipedia's definition:

"An **identifier** is a name that identifies (that is, labels the identity of) either a unique object or a unique *class* of objects, where the "object" or class may be an **idea, physical [countable] object (or class thereof), or physical [noncountable] substance (or class thereof).**"

"An identifier may be **a word, number, letter, symbol, or any combination of those.**"

## ■ Idea Clue

### ○ Address of Domain:

[www.iot.IoE.com/properties/intent/artificial intelligent/location](http://www.iot.IoE.com/properties/intent/artificial%20intelligent/location)

### ○ Email Address:

1234.abcd\_αβγ@IoE.IoT

# SeerID

## ■ SeerID ?

SeerID is the Identifier Solution of SeerIoE.  
IoT Identifier based on the natural language.

## ■ Structure of SeerID

① ③ ④ ② ①

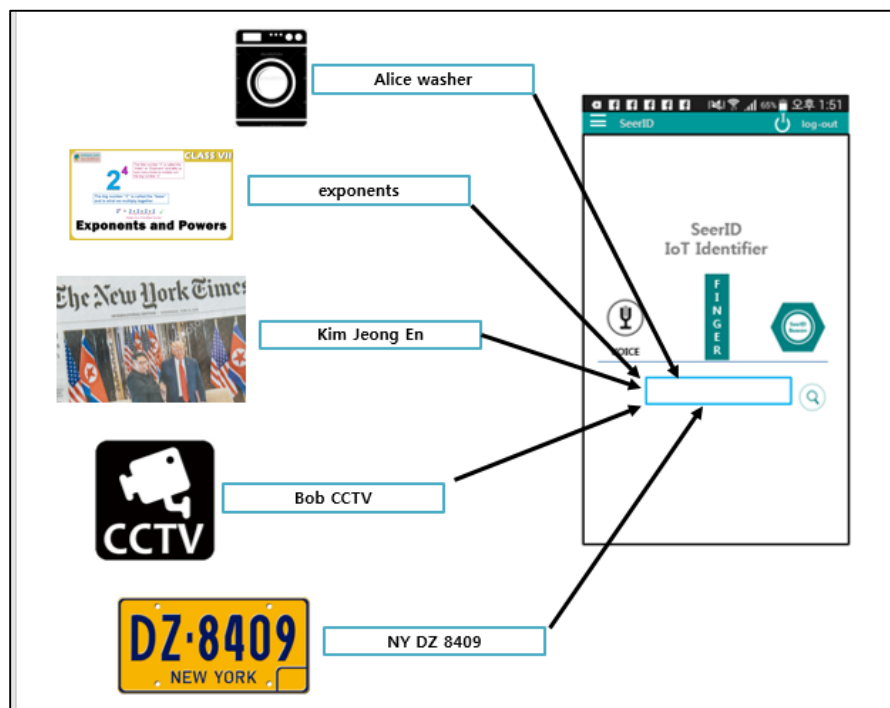
# ID @ Seer #

- ① #: Delimiter for SeerID
- ② Seer: Owner/Manger of Thing/Virtual Information
- ③ ID: Name of Thing
- ④ @: Delimiter between ID and Seer

seerid\_service@sip

hydrogen\_sulfide02.co@k\_smartfarm

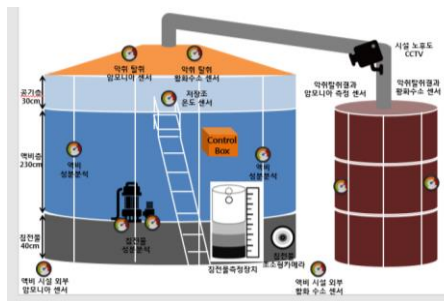
trump.singapore@nytimes



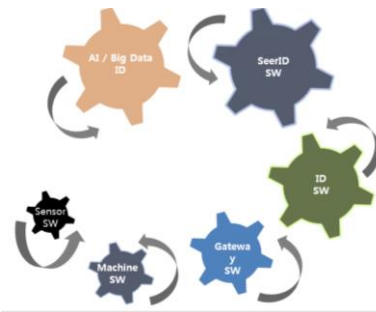
**EVERYTHING:  $IoE = IoT + IoM + IoPR + IoC + IoW + IoP + IoID + IoBD$**



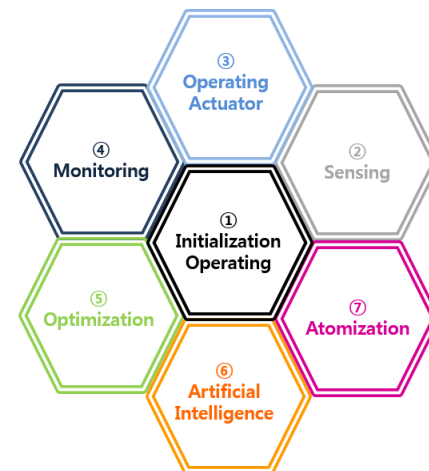
## Things (IoT)



## Machine (IoM)



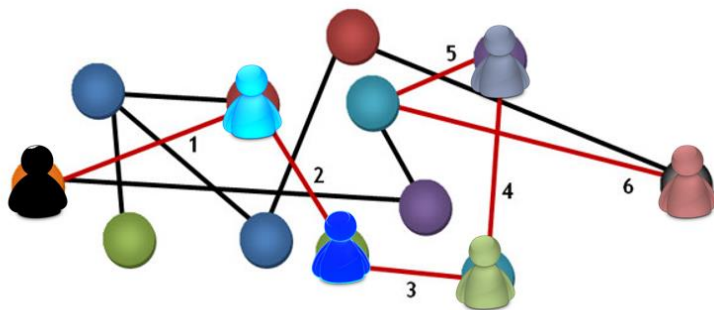
## Software (IoSW)



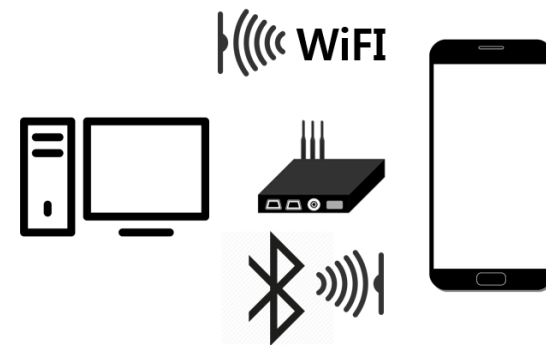
## Process (IoPR)



## Big Data (IoBD)



## Person (IoP)

Identifier  
(IoID)

## Communication (IoC)

### ■ Identifier of Things

Address, name and Identities of Things or their virtual information

### ■ Operating Command by Smart Connected Product

For example, operating keyword relating actuators

### ■ Networking Grammar by M2M, P2P

For example, Sharing information among SIP, Institute, officer, user etc.  
communication between hydrogen sulfide & ammonia

### ■ Intermediation among the various communication

For example, USN-UBEE, USN USM, Zigbee, Bluetooth, WiFi etc.

### ■ Mapping the various IDs via SeerID

For example, Sensing values access via allotting SeerID to sensors

### ■ Grammar Function of Software

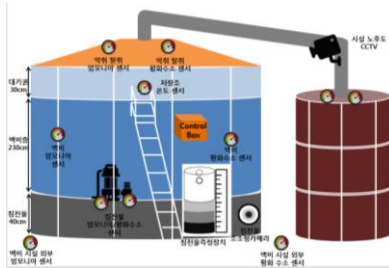
For example, sensor S/W, Gateway S/W, SeerID algorithm,  
Big Data Analyzer, AI Program etc.

### ■ Analyzing Function of Big Data

○ Big Data analyzer algorithm and Artificial Intelligence algorithm based on SeerIoE function.

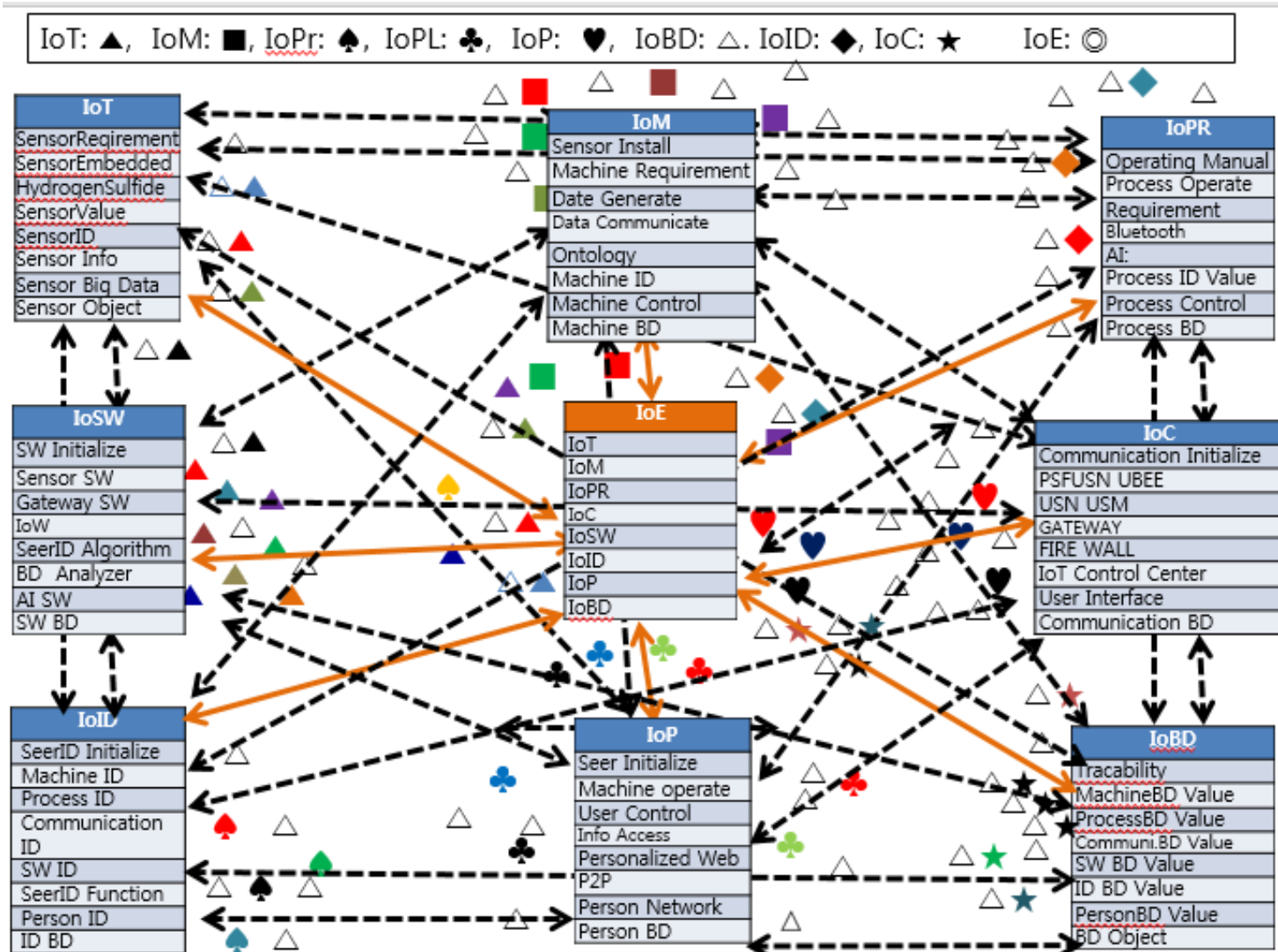
○ Graeco-Latin Square along network function of 9 IoE Sub-components and their 9 properties

# Sensing Process & Allotting SeerID



Sensor	Sensor SW	Firmware USN-UBEE	Bluetooth	Gateway	SeerID OS	User Interface
	<b>SENSOR S/W</b>					
Sensing Identity, state, motion of thing	Collection & Analysis of Thing-Data	<ul style="list-style-type: none"> <li>Coordinating Sensor Data</li> <li>End Device for sensor network</li> </ul>	Mediating Sensor & Gateway	Mediating Sensor Operating & Internet	Allotting ID to each Process	Info Access
<b>Sensor Value ( )</b>	<b>S_SW ( )</b>	<b>USN_value ( )</b>	<b>Bluetooth value ( )</b>	<b>Gateway ( )</b>	<b>Sensor ID = ID Value</b>	<b>Information</b>

# AIoE based Big Data Analyzer & AI Algorithm



## **SeerIoE Profile**



# Evaluation

## ■ Evaluation & Mentoring

### ○ Mentor:

Vassil Mladjov

Research Director at Gartner

Startups, Incubators and Venture Capital

### ○ Date

**May 06 2014, , Conference Call**

## ■ Evaluation

On Mon, May 19, 2014 at 6:59 PM, Mladjov,Vassil <[Vassil.Mladjov@gartner.com](mailto:Vassil.Mladjov@gartner.com)> wrote:

Thank you for your time Mr. Kee,

Bernard, I want to introduce you to Mr. Dr. Kee who is helping Mr. Park with an internet of things search start in South Korea. I think it would be great if you two connect and see if there are ways for you to work together.

**Bernard, they have a very interesting idea and need some help making a biz out of it, but the idea is great and the potential is very big.** Please take a look. Call me if you want to go over it at any time

Best regards,

Vassil

Vassil Mladjov

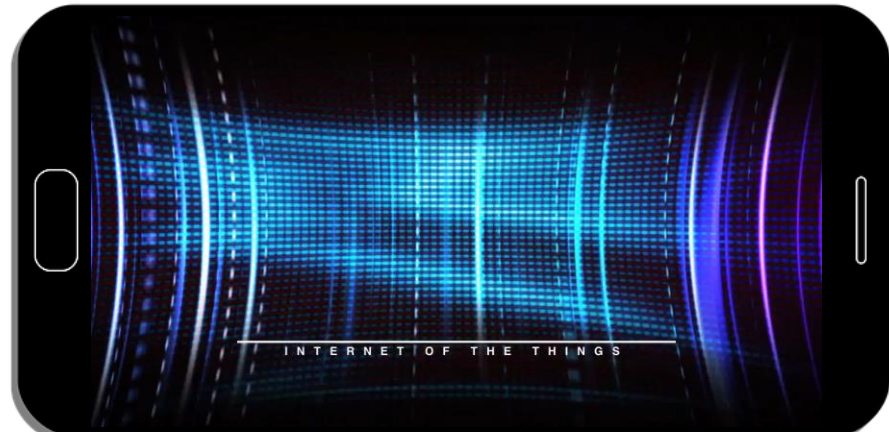
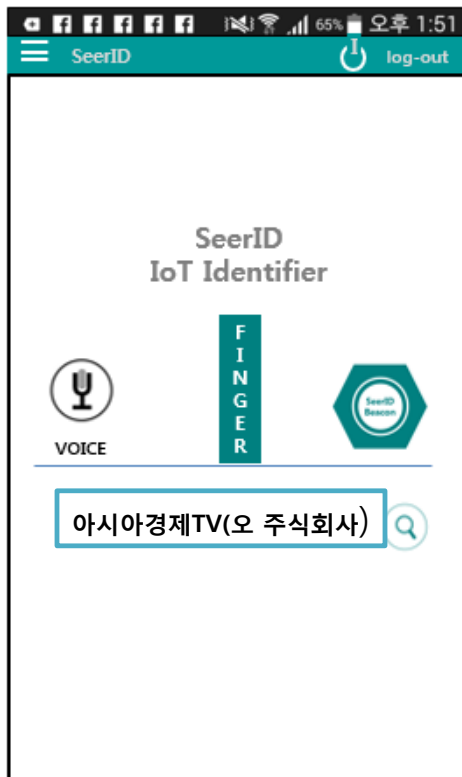
Research Director at Gartner

Startups, Incubators and Venture Capital

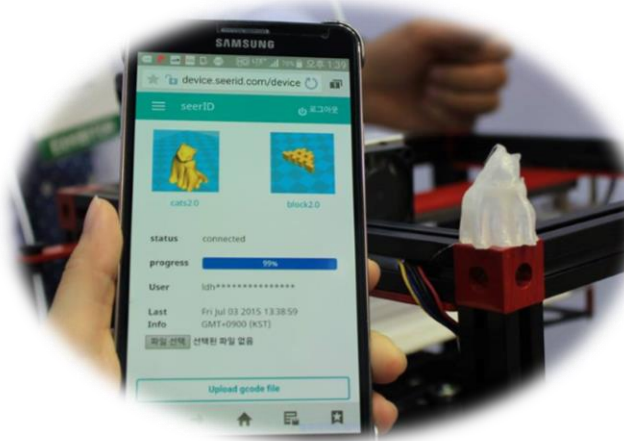


# Profile

- **Jan. 2014:** Releasing Alpha version
- **April 2014:** Trial Service  
Yeouido Spring Flower Festival
- **July 2014:** Trial Service  
Remote Operating of 3 D-Printing
- **Feb. 2015:** Trial Service  
Distribution Industry based on IoT  
Newspaper based on IoT



# Trial Service



## Yeouido Spring Flower Fest

○ April 2015

○ Catalog, Booth, Banner, Flower, Business card, Products, etc.

○ Service Access: 4,600

## 3-D Printing based on IoT

○ July 2015, COEX Exhibition

○ Remote Operation of 3 D Printing based on IoT & sharing economy

## IoT based Mart & Coffee

○ Feb. 2016

○ Order, Payment & Delivery

○ Coffee, Restaurant & Mart

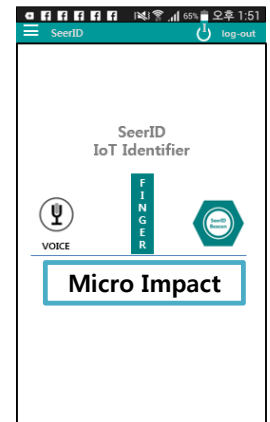
### 보도자료



사진없음 <input type="checkbox"/>	사진있음 <input checked="" type="checkbox"/>	쪽수 : 쪽	담당부서	문화체육과
보도문의 :	홍보전산과 인문홍보팀 이해경		과 장	송주용 2670-4205
	2670-7550 (010-3293-3054)		팀 장	최광목 2670-3141
			담 당	최소정 2670-3128

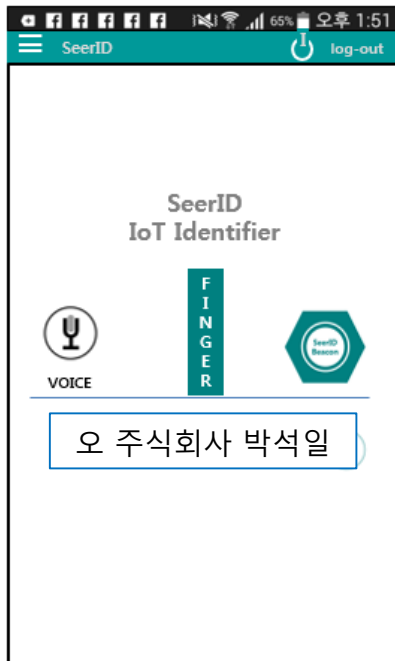
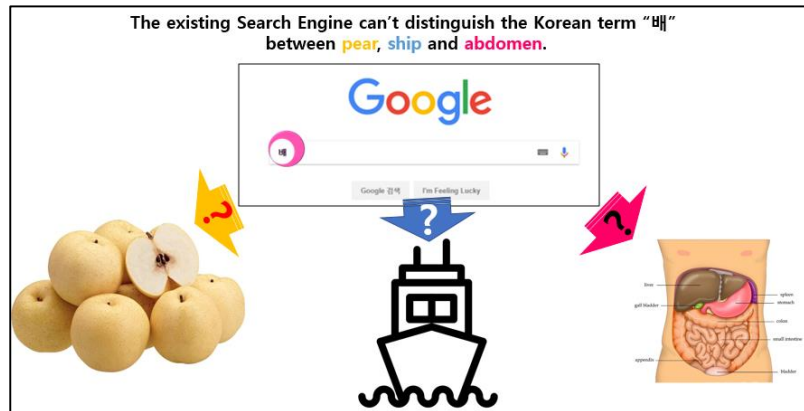
### 첨단기술과 축제의 만남.....손안에서 즐기는 봄꽃축제 영등포구, 전국 최초 스마트 축제 선 보인다

- 영등포구의도봄꽃축제, 첨단 사물인터넷 기술 적용 올해 처음 시도
- 축제장 곳곳 설치된 구조물의 바란개비(이)에 스마트폰 접속시키면 다양한 스마트 축제체형 가능, 이용방법 안내 도우미 배치 체형 지원
- 사물인터넷 분야 세계적인 기술 보유 기업인 오(주)와 협약·진행



# **SeerIoE Version 2.0**

# IoT based Ontological Retrieval



Seer

박석일

ID

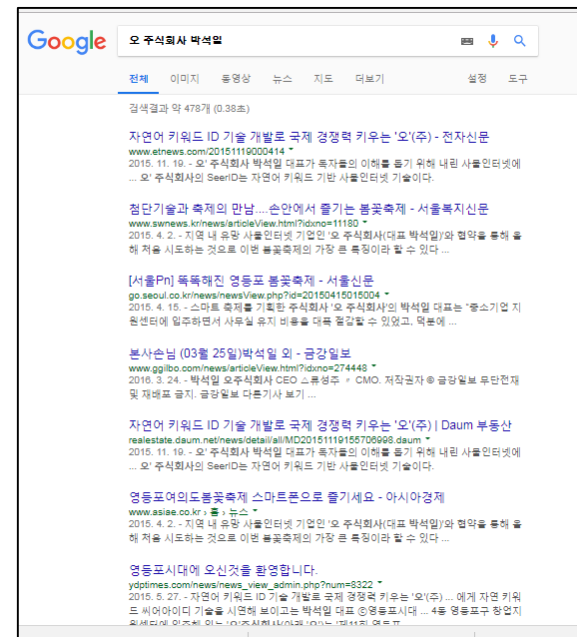
오 주식회사 박석일

SeerID 주소

IoT\_박석일#257abc\_오주식회사 박석일\_구글 검색

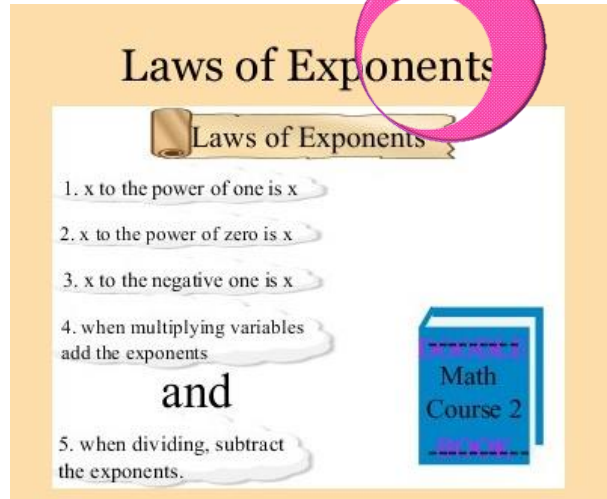
가상정보 주소

구글 검색어 "오 주식회사 박석일"  
[http://www.seerid.com/sub:google.com/?\\_오주식회사 박석일](http://www.seerid.com/sub:google.com/?_오주식회사 박석일)

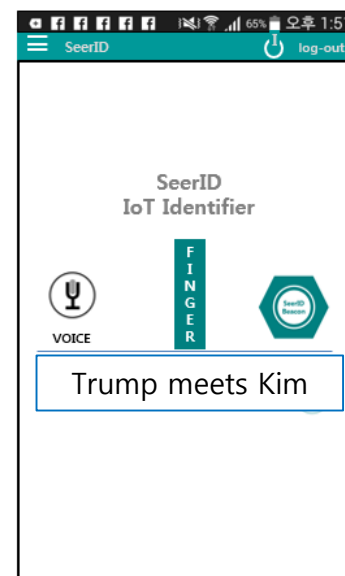
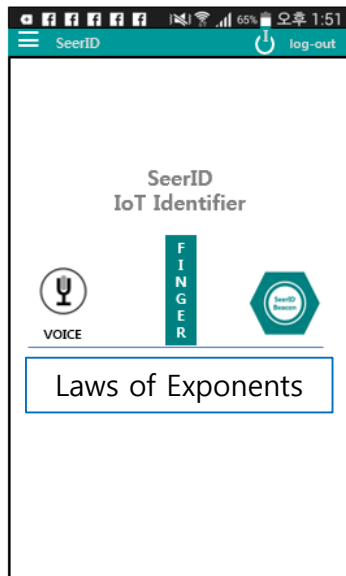


# IoT based Textbook & Newspaper

## Textbook



## Newspaper





# AI Embedded Smart Farm

## P2P Network

AgriTechCenter

Fertilizer  
Company

Farm

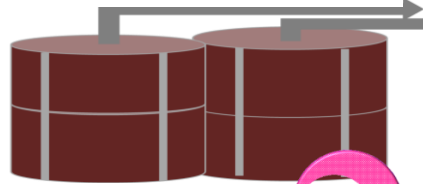
Farm Patner

Local Officer

## THING Domain



Fertilizer Tank



Smell Filter System

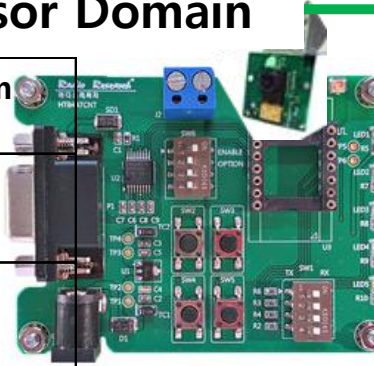


Fertilizer Scatter

## Sensor Domain

### Sensor Node

Fertilize	Nitrogen, Phosphoric acid, Potassium Tank Temporatur: 20-30°
Smell	Ammonia Hydrogen Sulfide
Facility	Tank Deterioration: CCTV Controlling Precipitate



### Actuator Node

Aeration	ON-OFF
Agitator	ON-OFF
Facility	ON-OFF
Temporatur	ON-OFF

## Operating Domain

SeerID DB,  
Big Data Analyzer  
AI Algorithm

IoT Operating  
System

IoT Service Platform

Internet

Data & Big Data Server

**Profile**



# Profile

