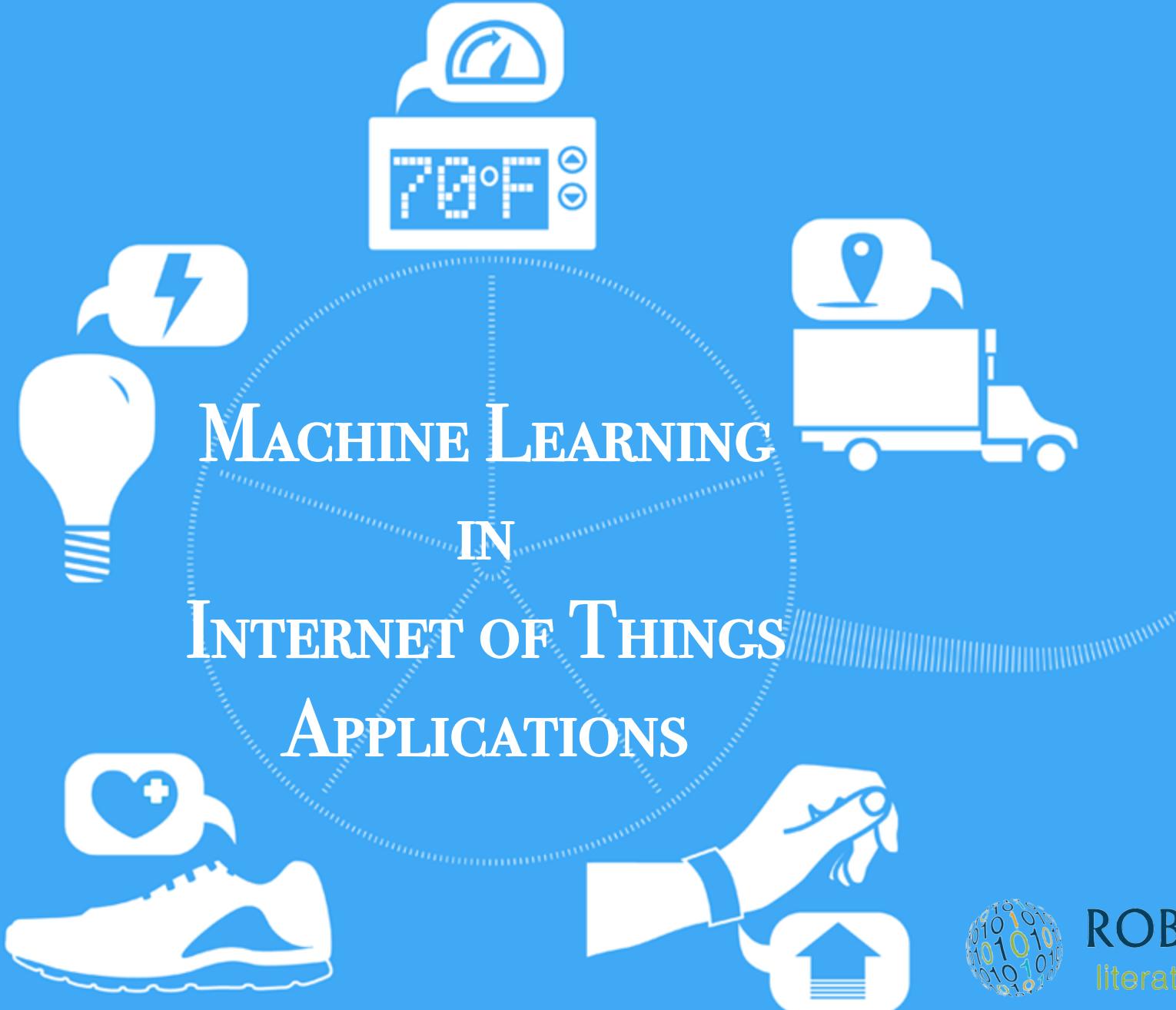


AGENDA

- INTERNET OF THINGS
 - MACHINE LEARNING
 - INTEGRATION – USE CASES
 - ML IN IoMT
 - SMART MANUFACTURING
 - SMART CITIES
 - SMART MOBILITY
 - SMART FARMING
 - FITNESS & SPORTS
 - CLIMATE MONITORING
 - ENERGY SECTOR
-



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INTERNET OF THINGS (IoT) DEFINITION

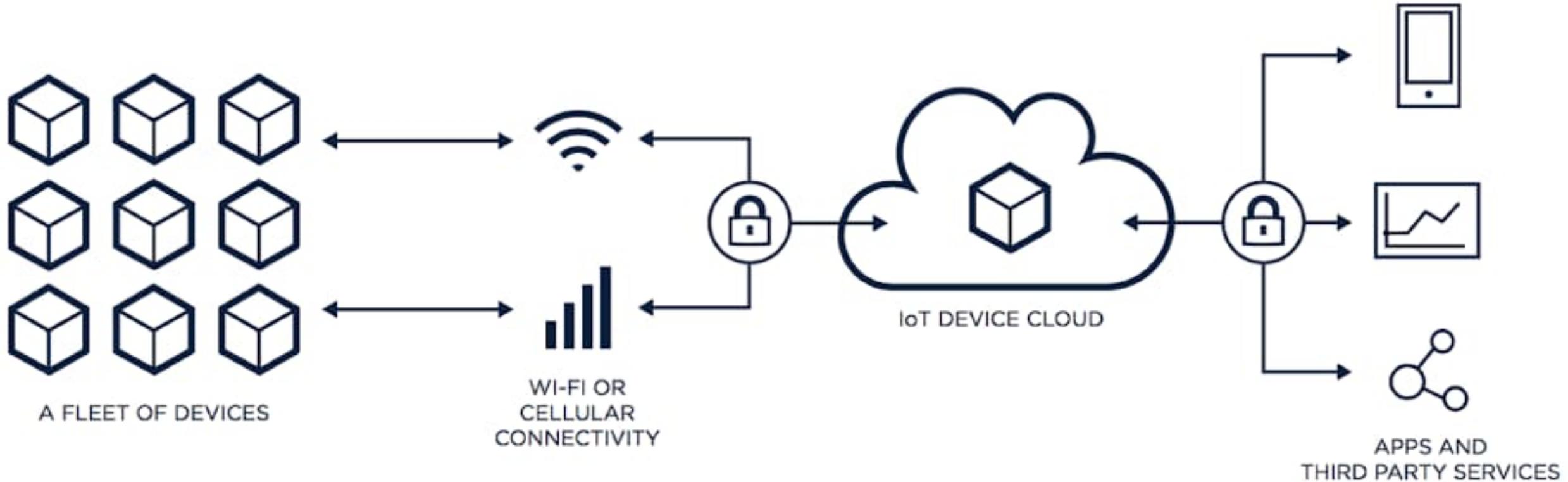
WE COULD GET PHYSICAL DEVICES
AND CONNECT THEM IN A SMARTER
WAY TO THE INTERNET TO TRANSFORM
THE USER EXPERIENCE THAT IS CALLED
THE INTERNET OF THINGS



EXAMPLES

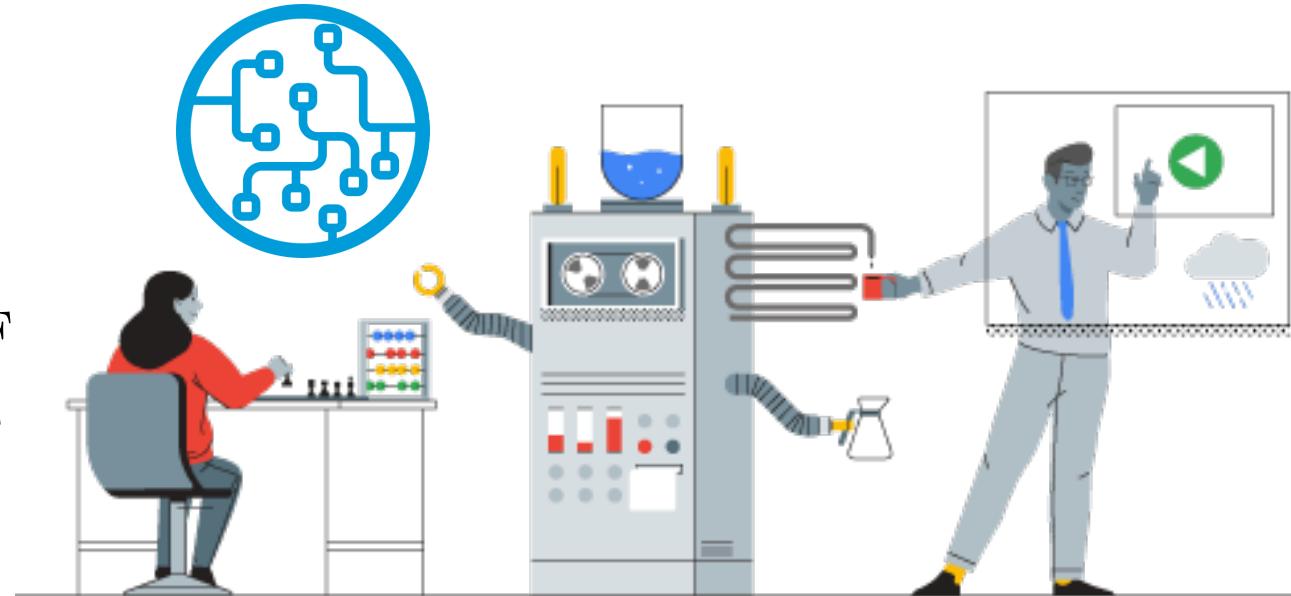
- BUILT-IN SENSORS
- SMART THERMOSTATS
- HOME APPLIANCES THAT ARE NETWORKED FOR REMOTE MONITORING

TECH STACK FOR IoT



MACHINE LEARNING

MACHINE LEARNING IS THE SCIENCE OF GETTING COMPUTERS TO ACT WITHOUT BEING EXPLICITLY PROGRAMMED.

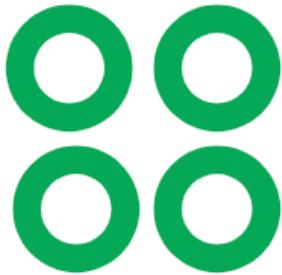


MACHINE LEARNING IS THE STUDY OF COMPUTER ALGORITHMS THAT IMPROVE AUTOMATICALLY THROUGH EXPERIENCE.

EXAMPLES

- MEDICAL DIAGNOSIS
- IMAGE PROCESSING
- PREDICTIVE ANALYTICS
- WEATHER FORECASTING

APPROACH & TECH STACK FOR ML



Data

Schema

Sampling over Time

Volume

Model

Algorithms

More Training

Experiments

Code

Business Needs

Bug Fixes

Configuration

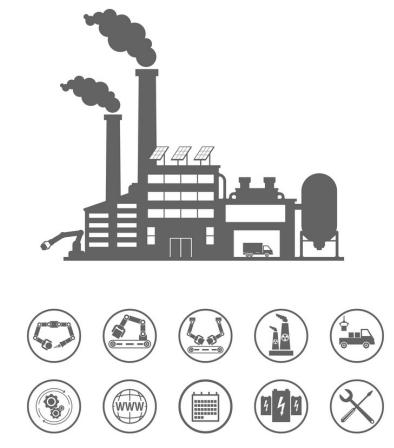
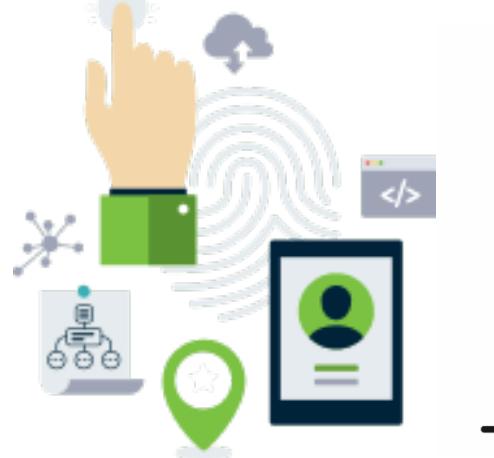


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MACHINE LEARNING IN IoT APPLICATIONS



MACHINE LEARNING IN INTERNET OF MEDICAL THINGS

- INTERNET OF MEDICAL THINGS
(CONSISTS OF ANY AND ALL MEDICAL DEVICES, PATIENT MONITORING TOOLS, WEARABLES, AND OTHER SENSORS THAT CAN SEND SIGNALS TO OTHER DEVICES VIA THE INTERNET.)
- PREDICTING PATIENT DETERIORATION OR INFECTION IN THE INPATIENT SETTING
REQUIRES CONTINUOUS FEEDBACK FROM BEDSIDE DEVICES
- REMOTE MONITORING OF PATIENT HEALTH CONDITION



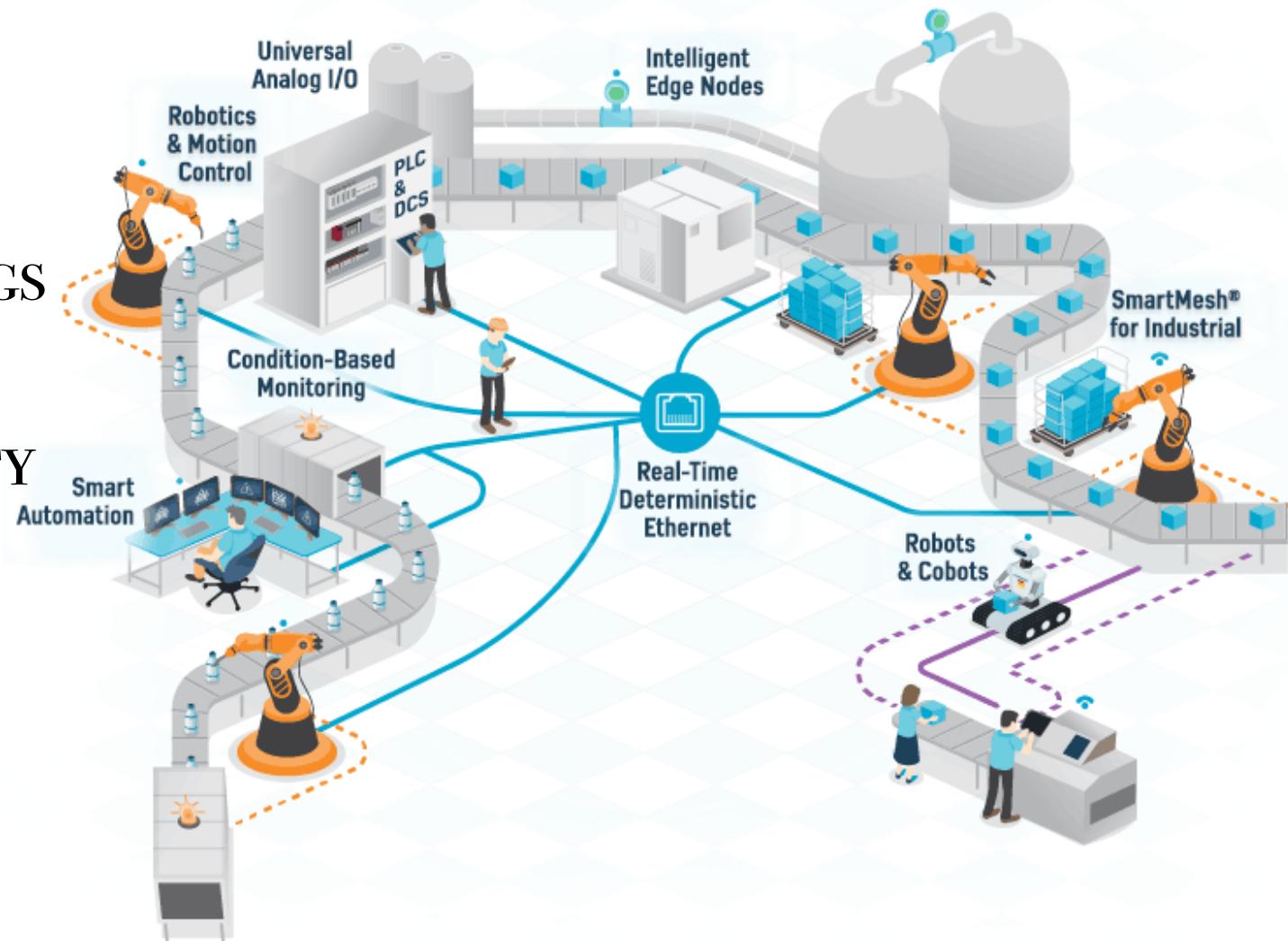
Link : [Project in working](#)

SMART MANUFACTURING

- INDUSTRIAL INTERNET OF THINGS
- ROBOTICS AND AUTOMATION
- AUGMENTED & VIRTUAL REALITY
- BIG DATA
- PREDICTIVE ANALYTICS

Video link: [click here](#)

Credits: Volkswagen Group





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SMART CITIES

- SMART PARKING
- VEHICLE FLOCKING
- SMART POLICING
- SELF POWERED LIGHTING
- NOISE & AIR QUALITY SENSORS
- WASTE MANAGEMENT

Video link: [click here](#)

Credits: Barcelona City Council

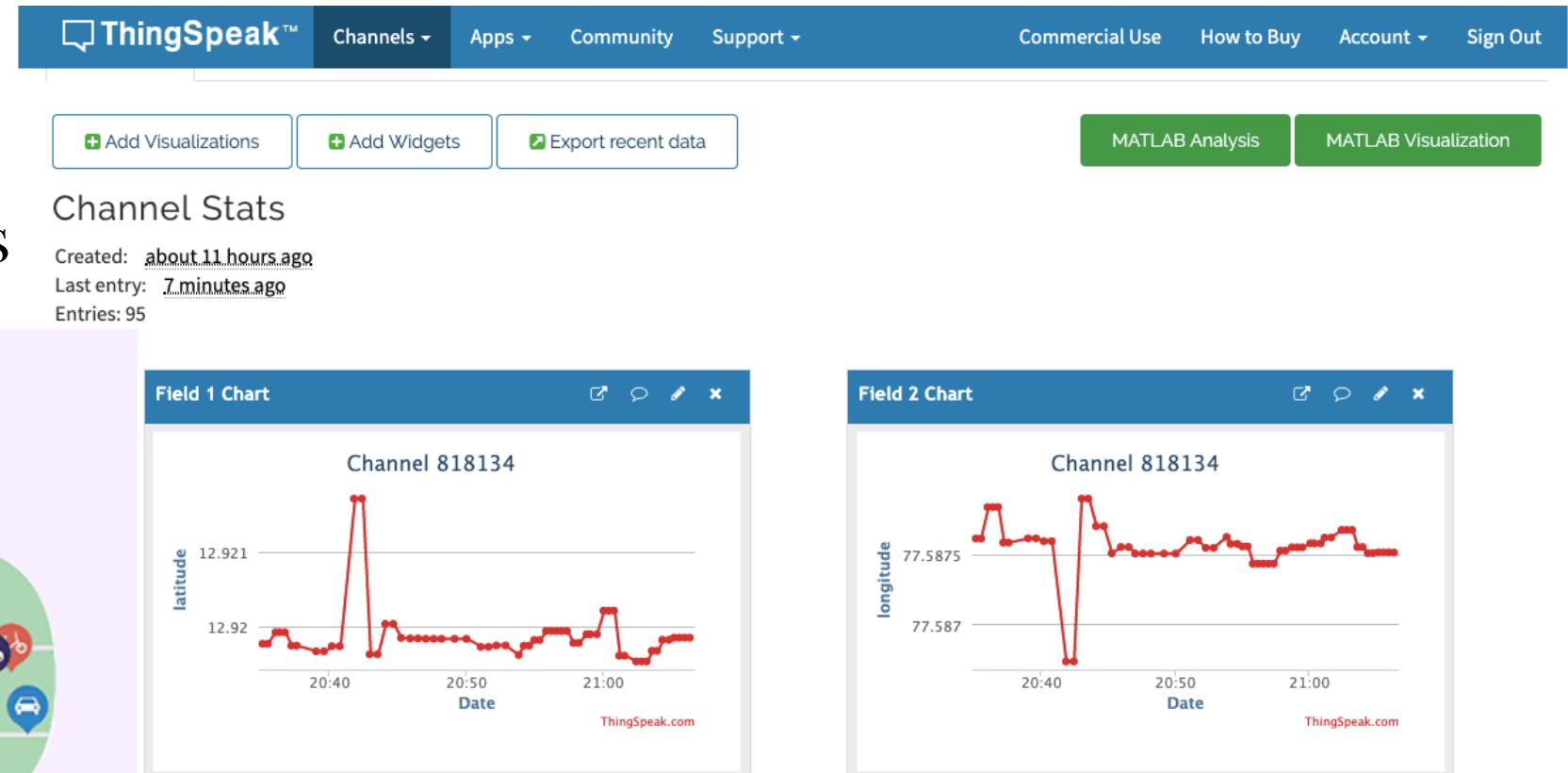


SMART MOBILITY

- LANE ASSIST
- TRANSPARENCY IN SHIPPING
- SAFETY IN SENSITIVE GOODS



Project demo1 : <https://github.com/rajaathota72-fc/Microsoftcodeforfuture->



Project demo2 : <https://github.com/rajaathota72-fc/PackageMonitoring>



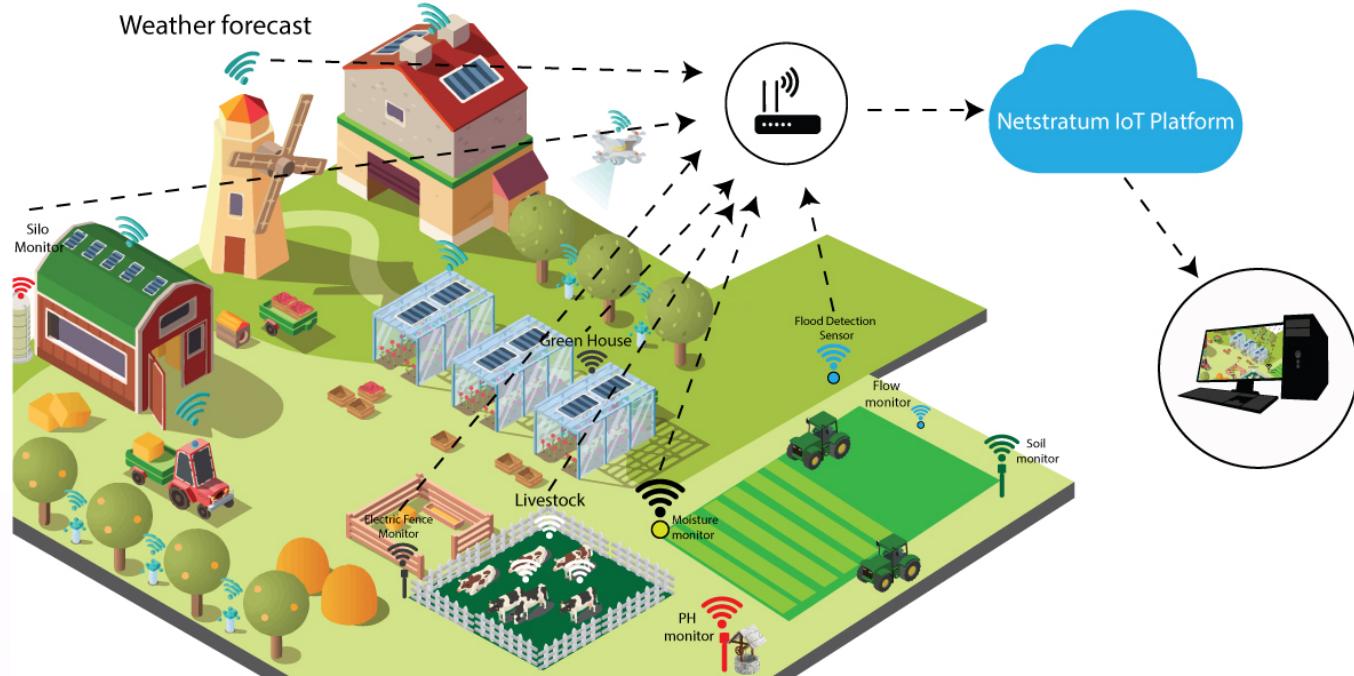
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SMART FARMING

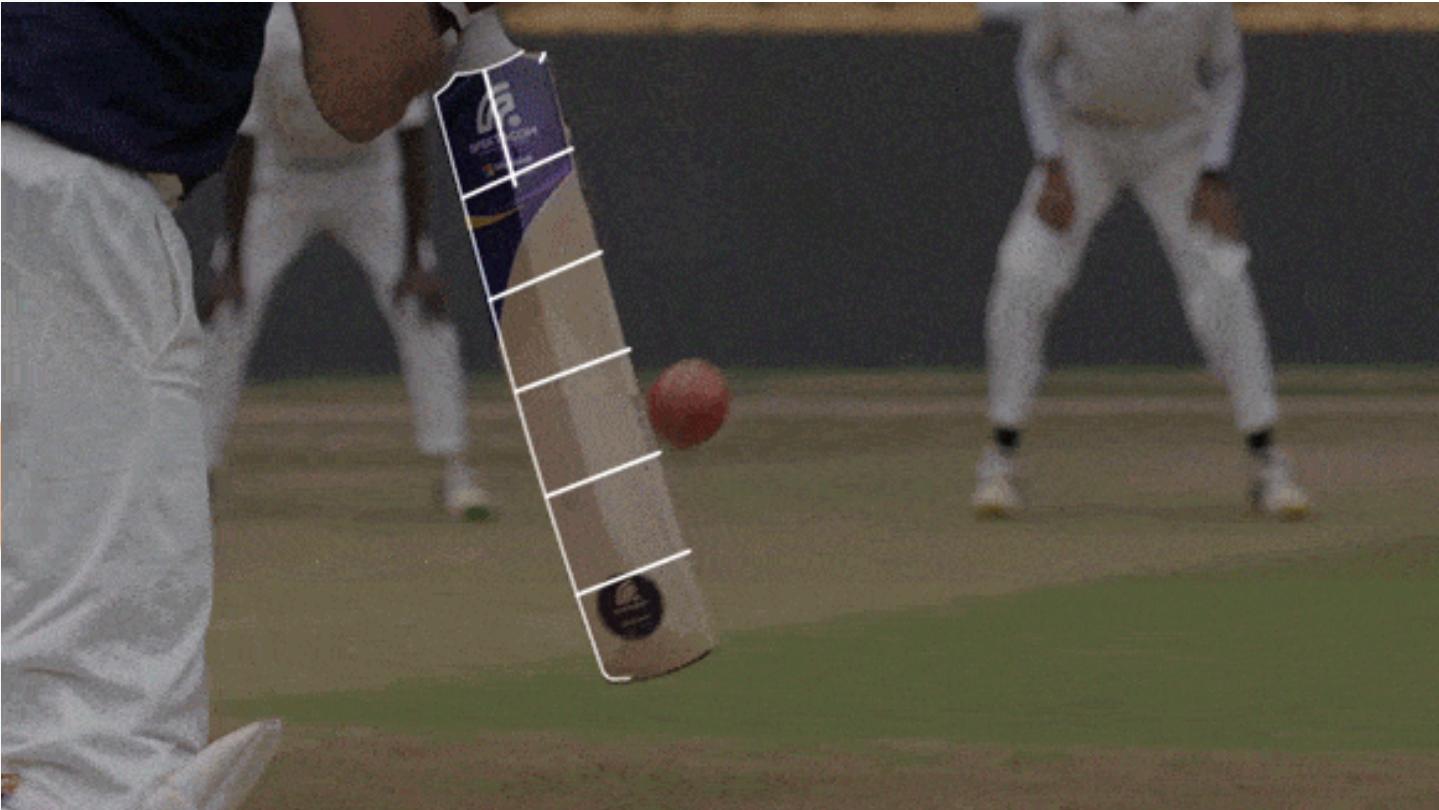
- REMOTE FARMING EQUIPMENT
- PLANTING DECISIONS
- SMART IRRIGATION



FOR LIVESTOCK:

- RESPONSIVE HEALTH CARE SERVICES
- MOVEMENT TRACKING
- DISEASE DETECTION & PREVENTION

FITNESS & SPORTS

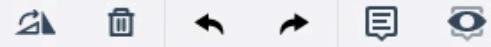


CLIMATE CHANGE MONITORING

TIN
KER
CAD

Simulation model

All changes saved

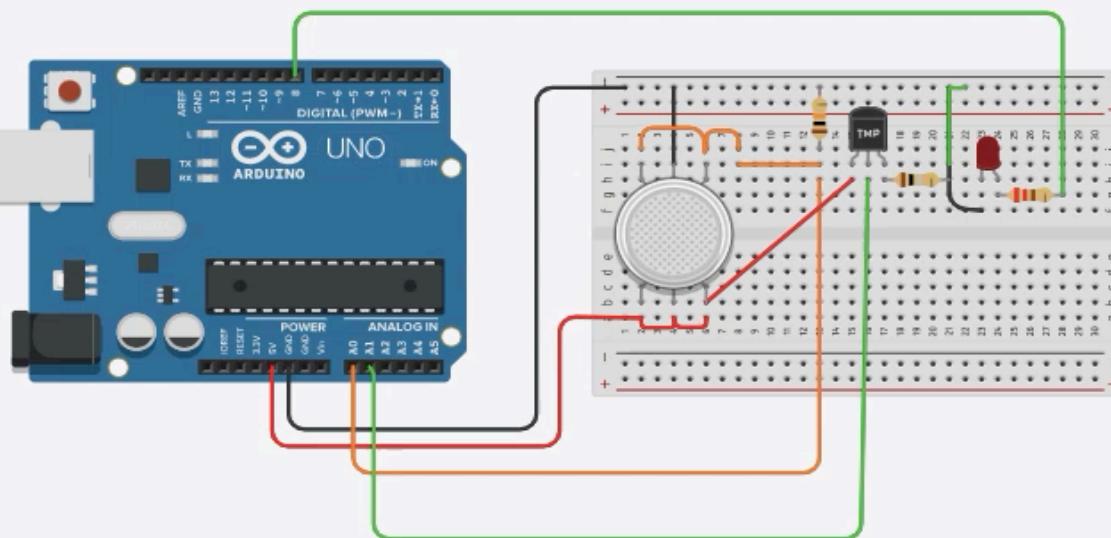


Code

Start Simulation

Export

Share



Text

```
#include <avr/pgmspace.h>
int sensor = A0;
int sensor1 = A1;
// Set the initial sensorValue to 0
int sensorValue = 0;
int sensor1Value = 0;

// The setup routine runs once when you press reset
void setup() {
    // Initialize the digital pin 8 as an output
    pinMode(pin8, OUTPUT);
    // Initialize serial communication at 9600 bits per second
    Serial.begin(9600);
}

// The loop routine runs over and over again forever
void loop() {
    // Read the input on analog pin 0 (named 'sensor')
    sensorValue = analogRead(sensor);
    sensor1Value = analogRead(sensor1);
    // Print out the value you read
    Serial.println("Air quality =");
    Serial.println(sensorValue, DEC);
    Serial.println("Temperature=");
}
```

Serial Monitor

```
=  
778  
Temperature=  
36.7199974060
```



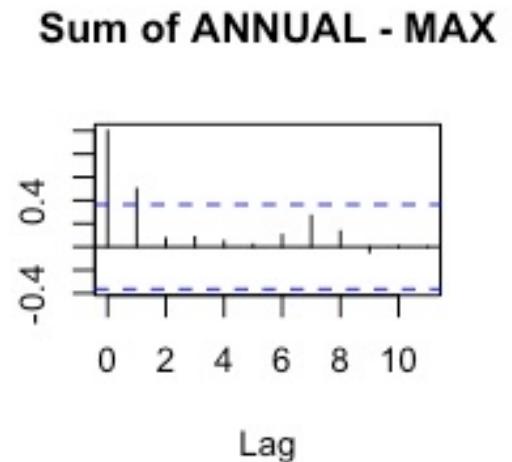
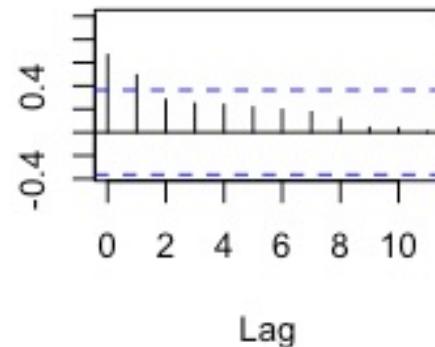
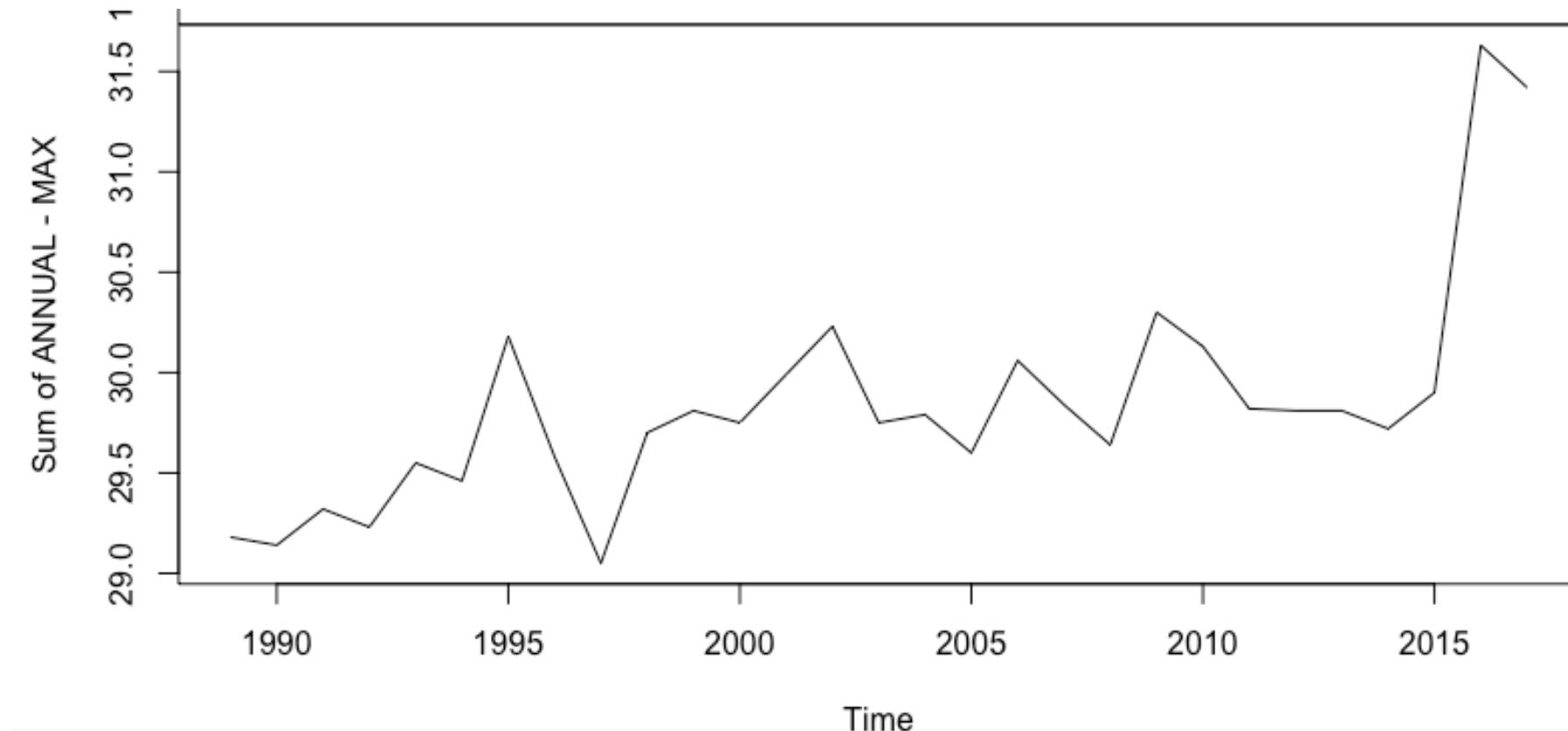
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Send Clear

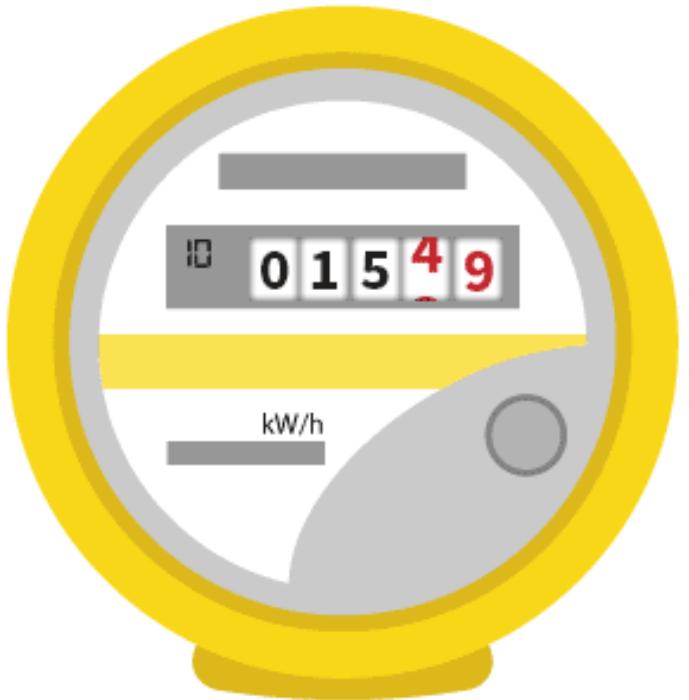
CLIMATE CHANGE MONITORING

YEAR & Sum of ANNUAL - M.



ENERGY SECTOR

SMART METERS



UPCOMING MEET UPS

- SIMULATIONS – IoT
- ML IN IoT APPLICATIONS
 - USE CASE SPECIFIC
- AUTOMATIONS USING MOBILE
AND MANY MORE , STAY TUNED!

SURVEY: www.menti.com

Code:

