Introduction of Disaster Prevention System

Oct. 2019

FUJITSU LIMITED
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Human Centric Innovation

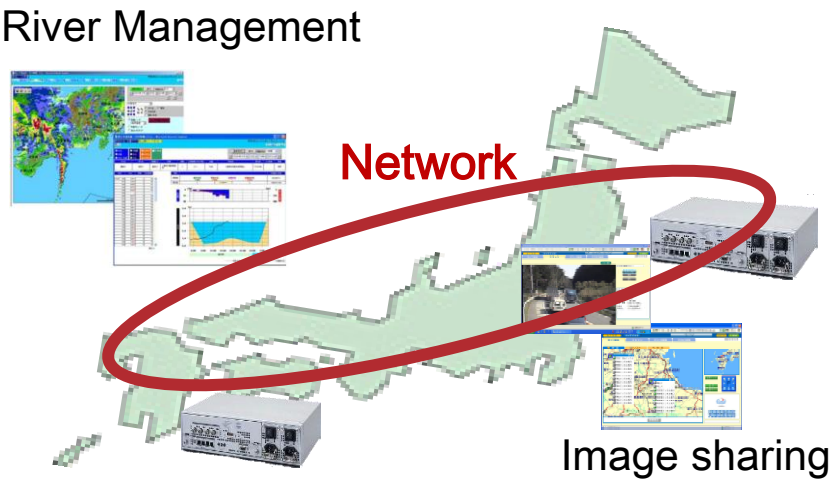
Driving a Trusted Future

Corporate Profile

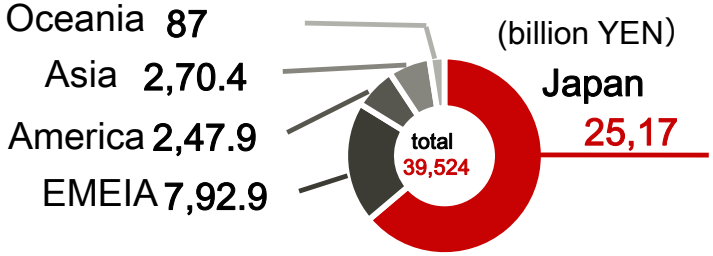
FUJITSU

Since the 1960s, we have provided solutions for the river and disaster prevention fields.

President	Takahito Tokita
Established	1935
Business Area	Technology Solutions Ubiquitous Solutions Device solution
Employees	132,138 (More than 100 countries around the world)
Revenue	3,952.4 billion yen
Disaster prevention Solutions	**Solutions:** Disaster prevention network River information Dam discharge control Disaster management system etc. **Delivered to:** Ministry of Land, Infrastructure, Transport and Tourism, Prefectures, Municipalities



Fiscal 2018 Sales by Region



Over seas 14,354 (36.3%)

Fujitsu's approach to Disaster Prevention

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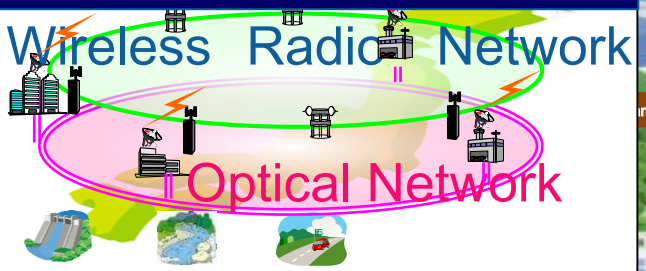
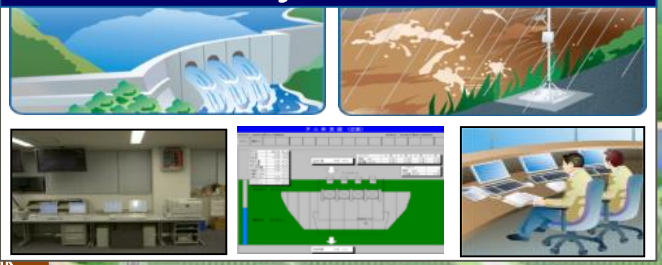
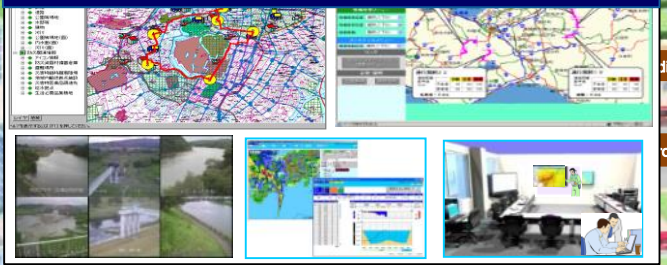
Network System



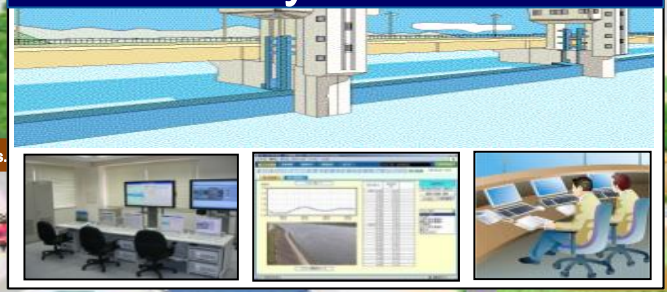
River and Dam Management system



Disaster Information Management system

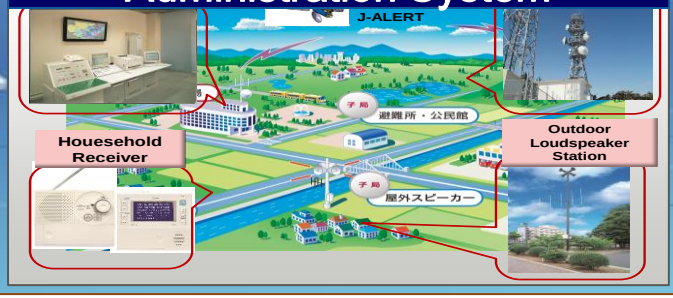


Water Gate remote control system



Fire Prevention System

Local Wireless Disaster Administration System



Disaster Management System

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Centralized management of the disaster situation and support rapid response

Before

- ✓ Disruptive reporting of disaster information (Phone, fax, WhatsApp)
- ✓ The overall damage situation is unknown.

Problem

- ✓ Delay and Confuse due to message game
- ✓ It takes time to grasp the whole situation.
- ✓ No one can understand the disaster situation in other areas

After the system is installed

- ✓ Quickly tabulate and centrally manage data input into the system
- ✓ Situation sharing from anywhere by disaster prevention center or PC

Disaster Management System

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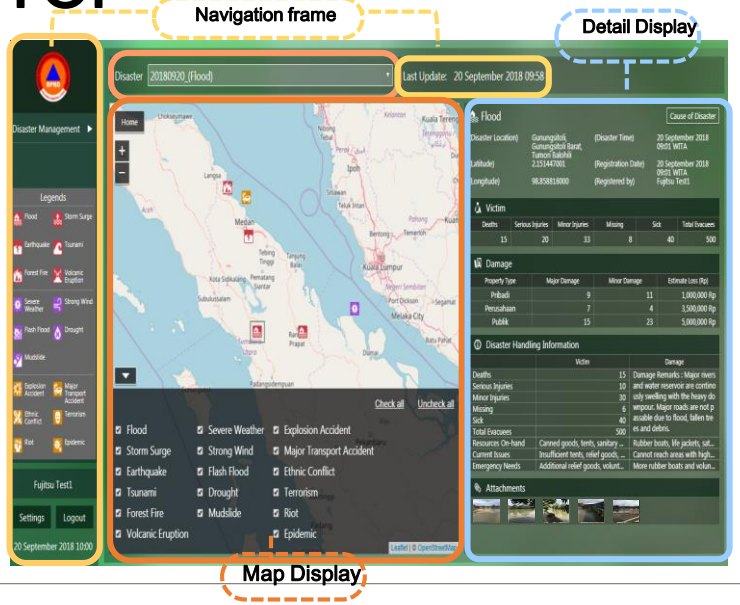
Command Control Center

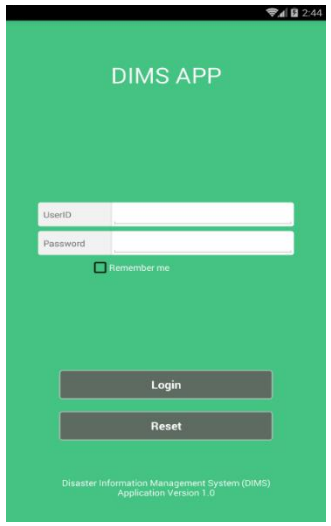
Map

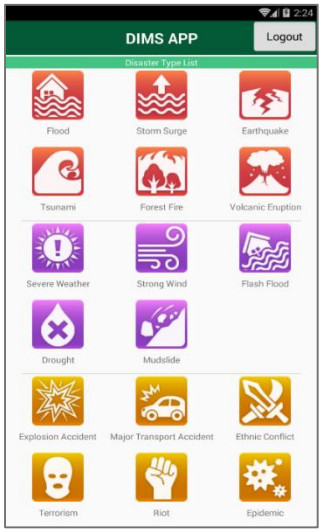
Summary

TOP



Smart Phone APP





River Management System

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- **Water level and rainfall information is collected**
- **Grasp the status of rivers**
- **Water level prediction is carried out.**

Before	✓ The water level of the whole river is unknown. ✓ Changes in water level are not known over time.
Problem	✓ Don't know where the danger of flood is approaching. ✓ Inability to provide appropriate evacuation information in a timely
After the system is installed	Enhance the water level observation system quickly at low cost. Simple water level prediction is possible.

River Management System

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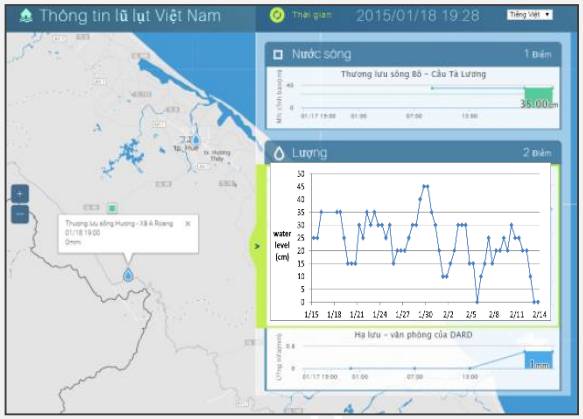
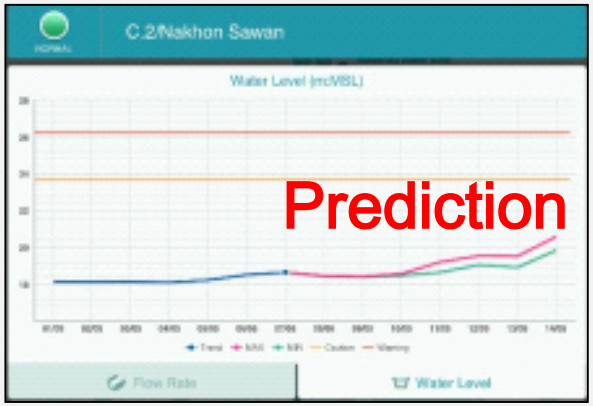
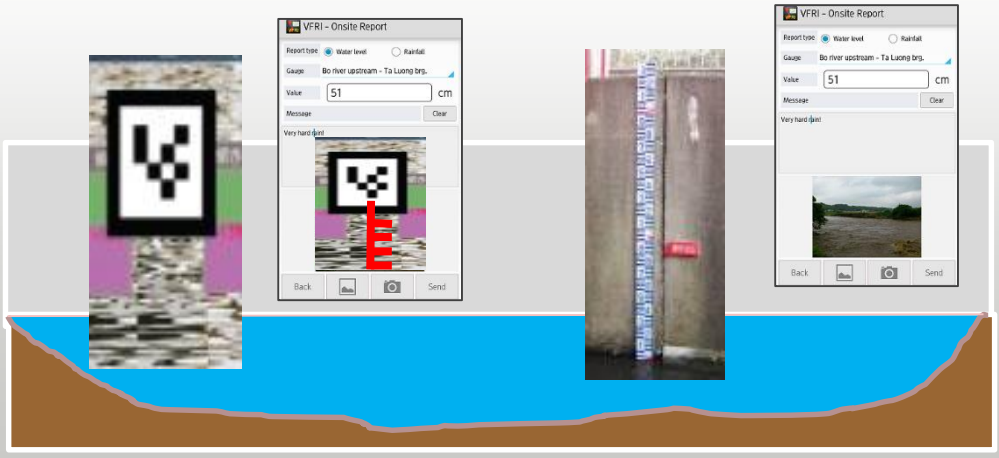
Management Display





Data center

Virtual Gage
On the smart phone



Water Level prediction by using AI

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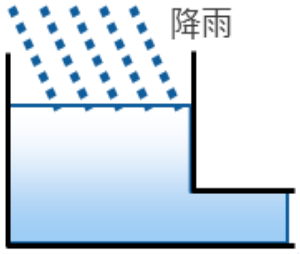


knowledge of hydraulics
(concept of the tank model)
river discharge

Past rainfall data
Past water level data

AI
Machine learning

RESUI

3 days ago~current rainfall,water level data

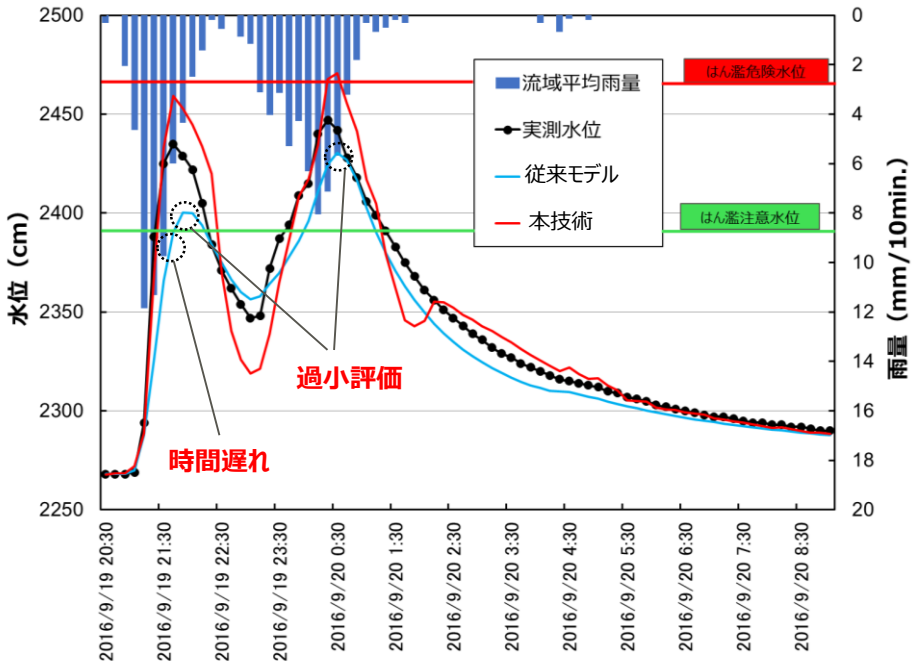
Meteorological data (Rainfall prediction)

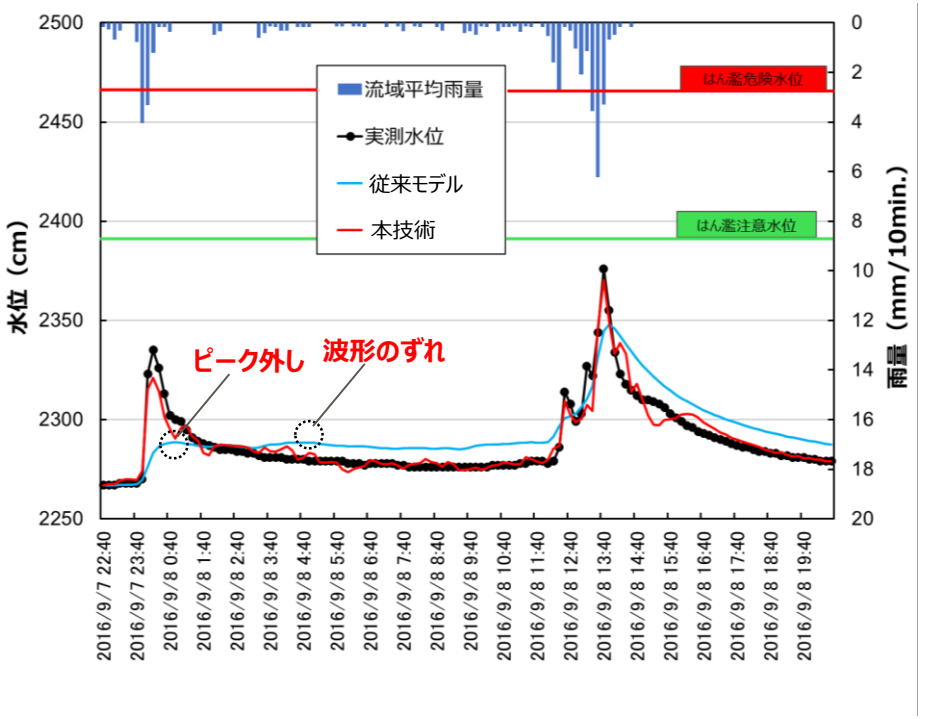
Mathematical model of water level prediction

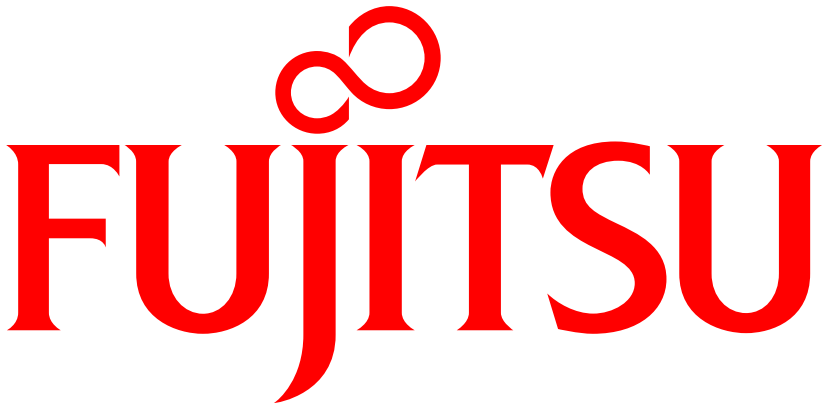
Water Leve

Water Level prediction by using AI

Comparison with the prior art







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