

Remote water level monitoring solution

Reservoir

Management System

Since many reservoirs were damaged by heavy rains and large-scale earthquakes, local governments are conducting detailed surveys and determining whether countermeasures are necessary. The "Reservoir Management System," a remote water level monitoring system, realizes disaster prevention and mitigation measures for reservoirs, especially for "disaster prevention priority reservoirs," which have a large impact on downstream areas.

- 👉 Catch the situation by water level gauge, rain gauge, and camera
- 👉 Monitor with mobile devices anytime
- 👉 Alarm by emergency e-mail
- 👉 Shooting interval depending on alert level

Easy installation

- Autonomous type (durable for 10 years)
- Long-term monitoring using solar cells (w/o AC power supply)

Low cost & High performance

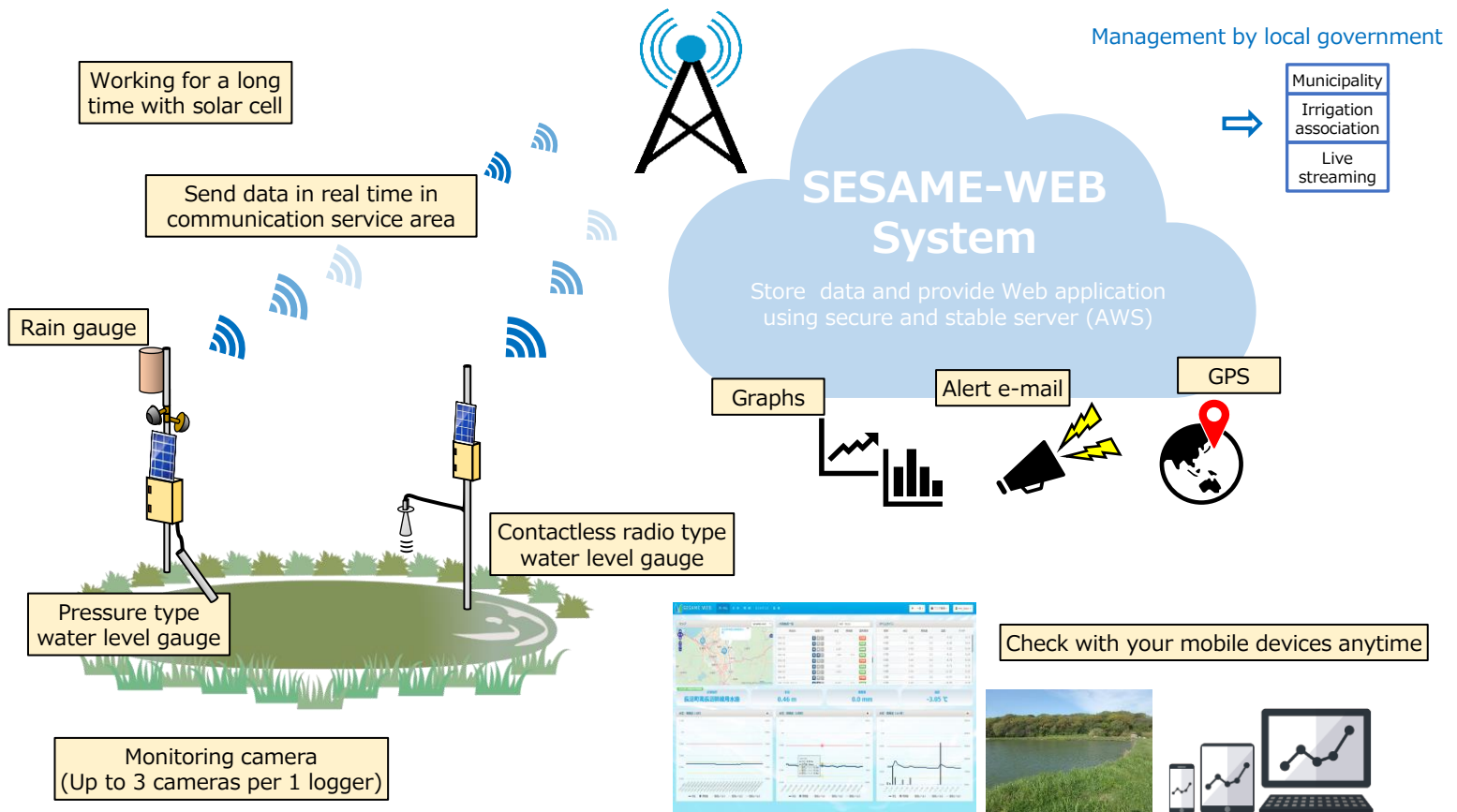
- Reliable data logging and transmitting system
- Various types of water level sensors are available (pressure, radio wave, and ultrasonic)
- Patrol light is connectable

Visualization by WEB monitoring system

- Flexible data analysis, linking graphs and images
- Download data as CSV file
- Check data with mobile devices
- No need to build a server by users



System Overview



Installation example

Ultrasonic water level gauge



Radio wave water level gauge and camera



Pressure type water level gauge



Camera specifications

System Specifications	
Name	SESAME-CAMERA USB model
Communication	3G·4G(LTE)
Operating temperature	-20 to 40°C (available in cold area)
Power Source	Solar battery 20W + Deep cycle battery DC12V·12Ah (Normal type) Commercial power supply is available
Battery capacity	[Solar battery]About one week without recharge (rechargeable about 2000 times)
Weight	7.04 kg (Camera 530g + Solar battery + clasp) Infrared lighting 1.1kg
Cable length	3m
Optional setting	Up to 3 cameras can be set.
Camera Specifications	
Sensor type	CMOS
Interface	USB2.0/USB Video Class
Shooting interval	1 min to once a day
Effective pixels	Maximum 2 megapixels
Resolutions	320X240 / 640X480 / 800X600 / 1280X720 / 1920X1080
Shooting range	Horizontal angle of view more than or equal to 90°at fixed camera. (no circling)
Min illuminance	Less than or equal to 0.05 lux (color)
External IR light	Range : 30m Irradiation angle : 60°
Endurance	For about 5 years continuous operable.
Camera size	φ9cm × Height7cm

General specifications

	Semiconductor type	Contactless, radio type	Contactless, ultrasonic type
Common			
Operating temperature	-20~50°C		
Endurance	For about 5 years continuous operable.		
Communication	3G·4G(LTE)		
Sensor			
Range	0-5m to 0-20m	0-10m to 0-20m	0-3m to 0-10m
Resolution	3.125mm (0-10m)		
Accuracy	±0.1%FS	±10mm (Farther than 0.5m)	±0.25%FS
Cable length	Selectable		
Ingress Protection	IP68	IP65	IP67
Operating temperature	-5°C to +50°C	-20°C to +70°C	-40°C to +80°C
Data logger			
Features	4-20mA input : 1 for water level, 0-20V input : 1		
	Temperature/Resistance : 2		
	Pulse input : 1 for Rainfall		
	Pulse output : 2		
	Recording Media : Internal memory and SD card		
Battery			
Power source	Deep cycle battery (Commercial power supply is available)		
Battery capacity	12V12Ah	12V22Ah	12V12Ah
Solar cell	20W		
Without recharge	About 9 days		
Box			
Materials	Polycarbonate and ABS plastic		
Equipment	Controller, Data logger, Communication module		
Size	W500×D500×H200 mm		
Ingress Protection	IP65		
Weight			
Sensor	0.15kg w/o cable	4.2kg w/o cable	1.0kg w/o cable
Logger	2.0kg Circuit board and cables		
Battery	3.4kg	6.8kg	3.4kg
Solar cell	2.5kg		
Box	8.8kg		
Net weight	17.1kg	24.5kg	17.9kg

WEB Monitoring System

SESAME-WEB

Measurement data can be checked in real time on the web, and flexible data analysis is also possible.

Timeline



Daily data

Weekly data

Monthly data

High water level

Low water level



Grasp the situation accurately.



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