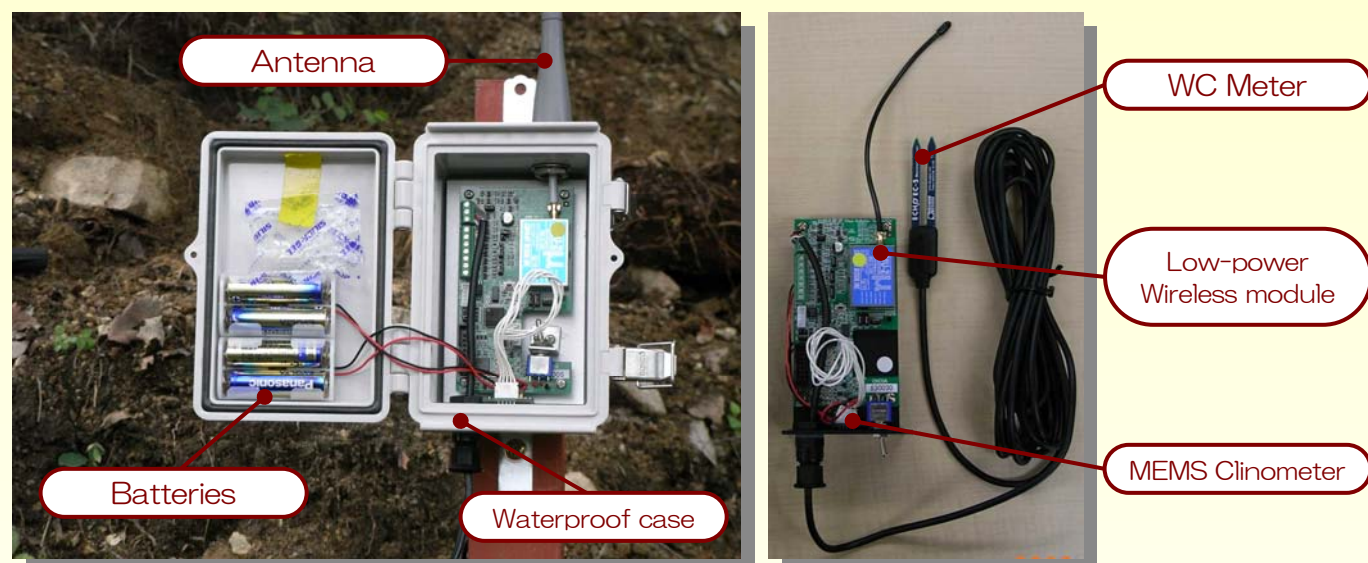


Slope Failure Monitoring Sensor **【KANTARO】**

※Joint development with Univ. of Tokyo

Inexpensive, highly accurate, simple measurement and easily established land slope failure monitoring sensor.

Combined 「KANOKUO」 real time monitoring system, the land slope disaster vulnerability information can be provided immediately.



Benefit by using MEMS technology

- Low-power : AA Batteries can be used for one year
- Easy setup : only 30-60min. for one site

Specification: Slope failure monitoring sensor **KANTARO**

- Sensor Unit
 - 2-D Clinometer Module : 0.0025°
 - 3-D Clinometer Module : 0.04°
- Water Content Meter (EC5-5)
 - Resolution : 0.002m³/m³ ■ Accuracy : ±3%
- Wireless
 - Standard : ARIB ■ STD-T67
 - Frequency range : 429.250~429.7375MHz
 - Max. communication distance : about 600m line of sight
- Waterproof : Japan JIS standard 4(X4)
- Operating temperature : -10°C~80°C

Patent pending: 2008096039
Trademark Registration: No.4946492



Automatic Internet Full Duplex Remote Monitoring System

KANSOKUO

System Information on Automatic Monitoring of Landslide

「KANSOKUO」 is remote monitoring system based on internet communication, which can transmit the data of different types of sensors, and control the local instrument remotely by full duplex communication.

This system can be used to land slope failure monitoring, road surface and rock fall monitoring and riverbank leakage monitoring. It can also be customized according to the measurement sensors pattern for monitoring.

The Features of 「KANSOKUO」

- Automatic monitoring and control can be observed **anywhere, anytime**.
- **Largely reduce the labor costs** required for monitoring.
- Used for disaster warning and prevention based on real-time information.
- Various sensors can be connected to this system.
- Sampling interval time or range can be adjusted by **remotely controlling**.
- Established on network system using ADSL, optics fiber and mobile phone module.

Patent pending: No2009041040
Trademark Registration: No.4946492
NETIS Registration: KT-060036-A



Actual connection of sensors type

- MEMS clinometers
 - Rain gauge
 - Hydrostatic level transducers
 - Flow meters
 - Total Station
 - Seismometer
 - Web camera
 - Land slope failure monitoring sensor
- And other types of sensors can also be connected by customize

Contact to:



CONSULTING ENGINEERS & PLANNERS

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http://www.cknet.co.jp

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Applied to steep slopes and landslide hazard areas

KANSOKUO can be used to landslide hazard area as an automatic real time monitoring system. The sampling interval time and instruments parameter can be adjusted from remote location if needed.



Warning !

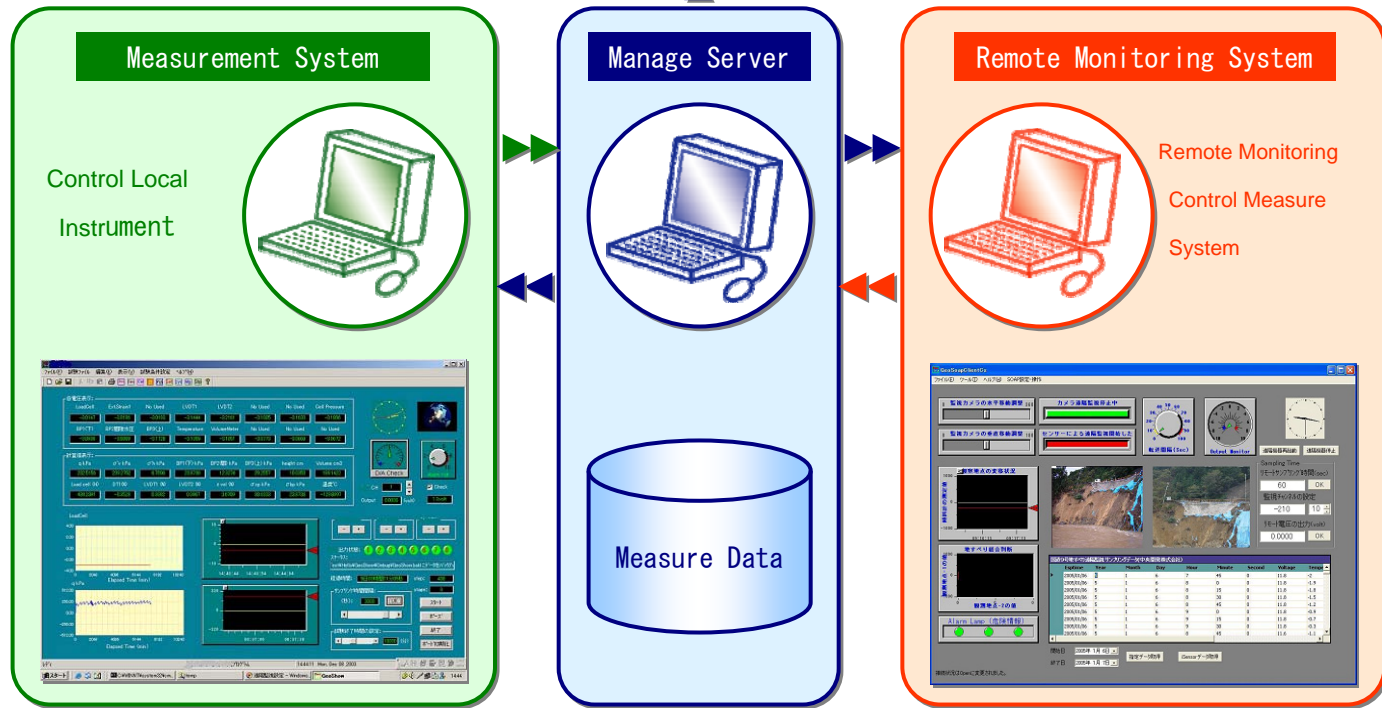
Over criteria

Government • Residents

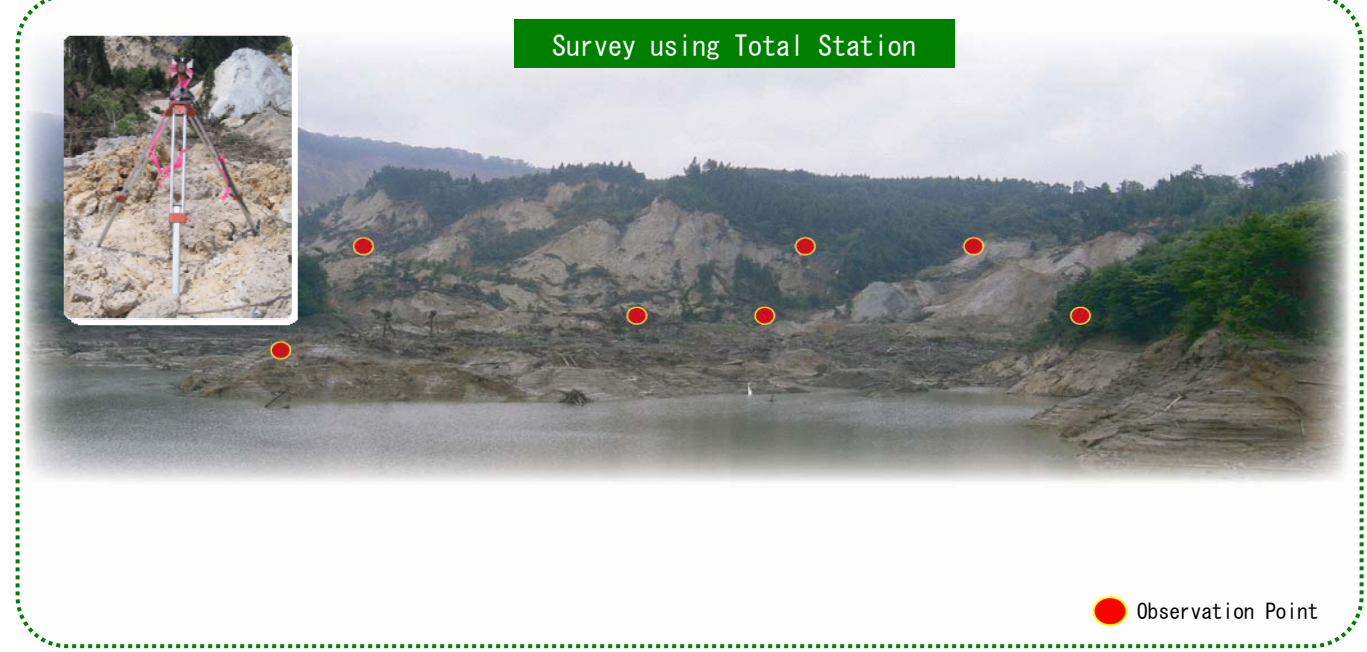
- Browsing and search the data
- Deliver emergency information to resident by email
- Send evacuation warning mail

If measured value exceeds determined criteria. Warning email will be send to responsible person and local resident immediately

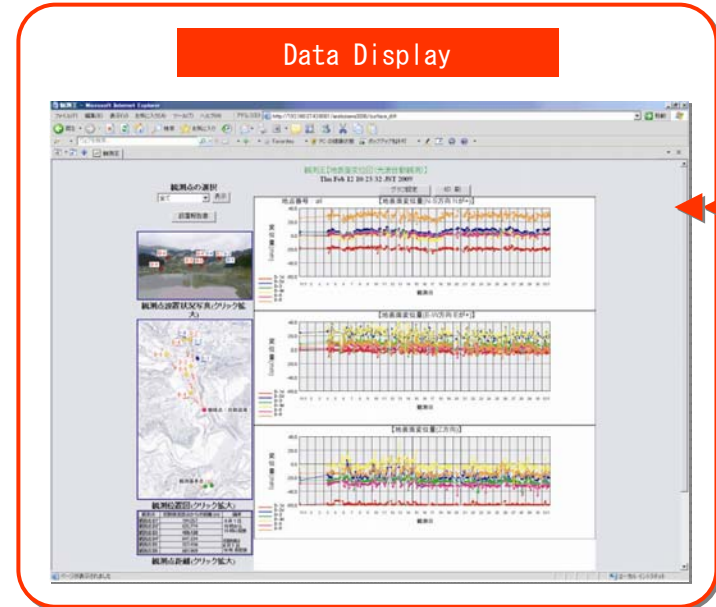
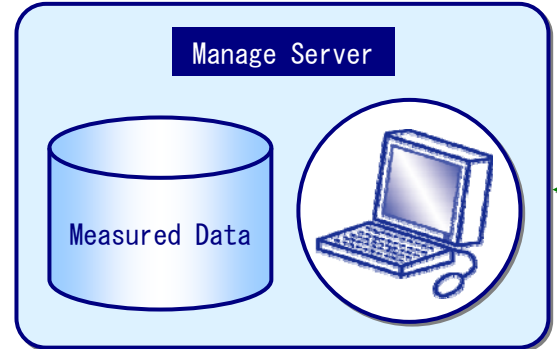
CKC can supply a total service of remote monitoring system for land slope failure disaster prevention projects.



Landslide Real Time Monitoring Using 「KANSOKUO」 System



At large scale of landslide site, **Total Station** can be connected to **KANSOKUO** system for real time hazard monitoring.



Real time monitoring display of N-S direction, E-W direction, Z direction data measured by **Total Station**.
 Using wireless to transmit data to office, using ADSL line to build a monitoring network.
 Multiple parallel instruments can be connected to this system at the same time.