

The
AutoLog®
Family
presents



We've got it under control
Sophisticated Control Technology

**SuccessStory - AutoLog® ControlMan and Wireless Sensors
Refuse dump supervision from the Internet**



FF-AUTOMATION



AutoLog® ControlMan – Wireless supervision as Cloud Service

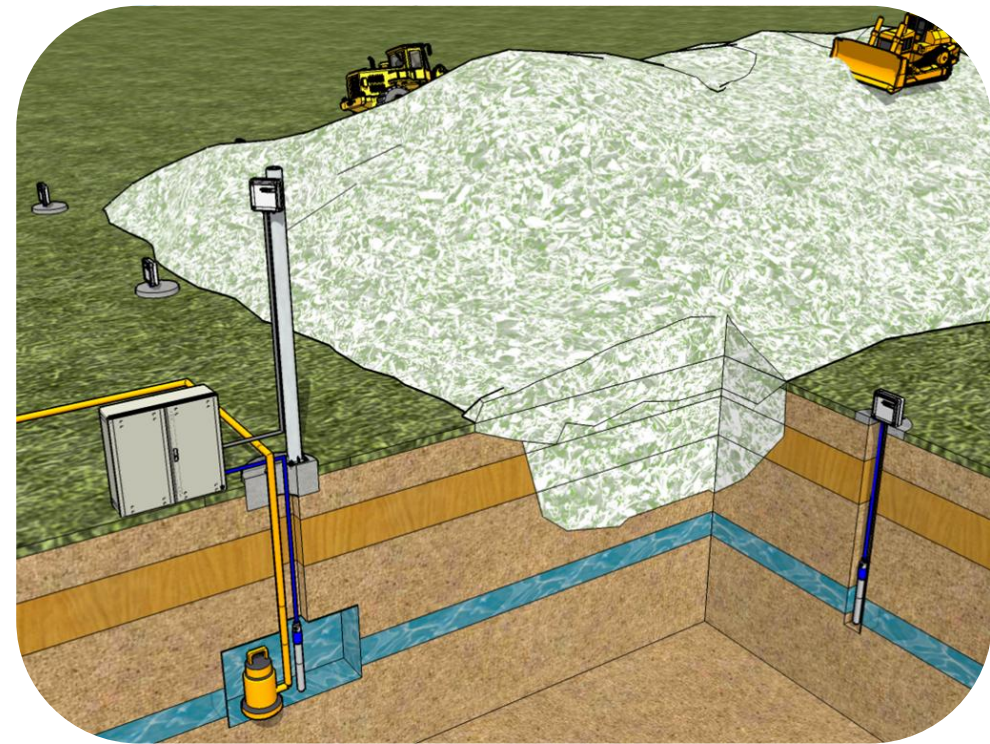
PROJECT DESCRIPTION:

PROBLEM:

Refuse dumps can have many harmful contaminant effects to nearby nature. To minimize the effects, many regulations have been made. One of these handles the constant monitoring and reporting of the groundwater level.

SOLUTION:

By using battery operating AutoLog Wireless Sensors, measurements can be easily collected from nearby points. Measurements are sent wirelessly to the master unit, which is connected to AutoLog GSM-RTU, which then forwards the measurements to the AutoLog ControlMan server via the GSM/GPRS network. From the ControlMan, users can easily monitor measurements and print needed reports.





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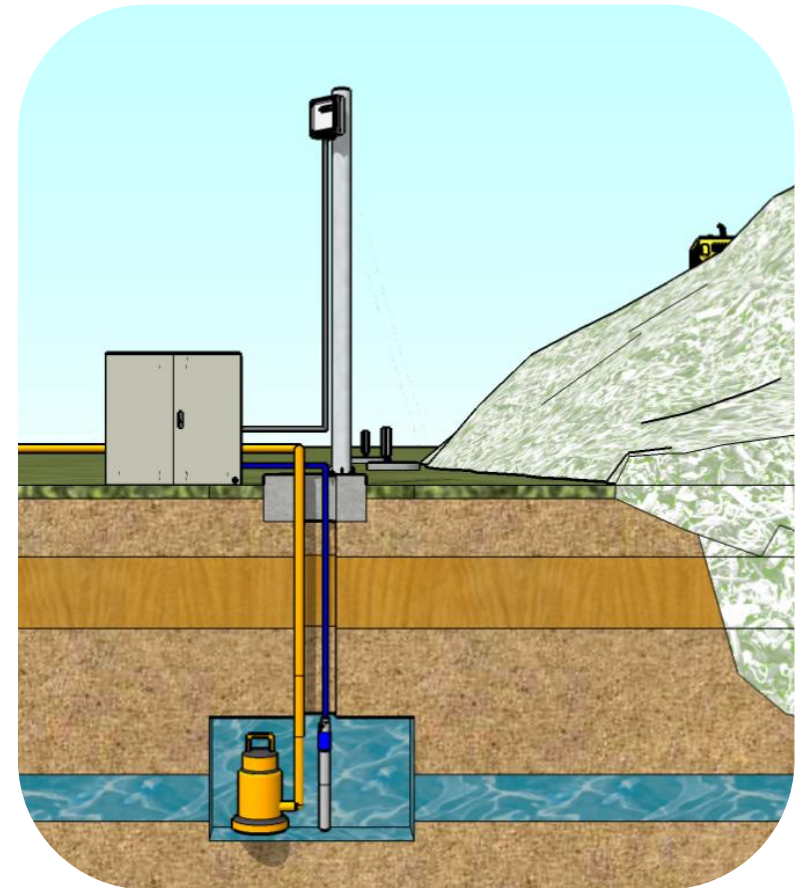
PROJECT DESCRIPTION:

Master Station:

The AutoLog GSM-PLC master station is installed inside the outdoor cabinet. It connects with the Wireless Sensor master module via the serial port 1 using the standard Modbus RTU communication protocol. The master module is installed on the top of the antenna pole. Through the master module, GSM-PLC receives measurements from the nearby wireless sensor modules.

Through the serial port 2, the GSM-PLC communicates with the internal GSM modem, by sending the measurements to the AutoLog ControlMan server and by receiving special commands, parameters, program change requests etc. from a maintenance user.

The GSM-PLC also reads the groundwater level and other quality measurements locally from wired sensors connected with its analog inputs. The GSM-PLC also controls a pump according to water level. Water is pumped to a water treatment plant.





AutoLog® ControlMan – Wireless supervision as Cloud Service

PROJECT DESCRIPTION:

Wireless Sensors:

The wireless sensor wakes up according to a defined interval (e.g. once per hour) and measures the surface level using a pressure difference sensor. After that it goes back to a low power sleep mode.

The wireless sensor is battery operating so it doesn't need any wirings. Because of its intelligent power saving modes, it can operate years without any maintenance.

The wireless sensor needs to be installed so that it has direct line of sight with the master module. Maximum distance between the master and the sensor module is over 200 meters. The master module has an omni-directional antenna so the sensor can be located anywhere in the range of 200 meters coverage area. The coverage area can be increased using router modules.

The GSM-PLC also monitors the signal strengths and the battery voltages of the wireless sensors and sends an alarm message to the ControlMan if needed.





AutoLog® ControlMan – Wireless supervision as Cloud Service

BENEFITS:

- ✓ Minimizing contaminant effects to nearby nature
- ✓ Fulfills environmental regulations
- ✓ Automatic measurement reports
- ✓ Better supervision
- ✓ Increased knowledge

- ✓ Easy installation – no cables
- ✓ Uses EU-free 868MHz frequency
- ✓ WSN-868MHz master module has standard Modbus RTU interface

- ✓ No need for own server PC or maintenance staff
- ✓ Uses own network connections – doesn't need to change the company's network settings or open any ports – No security risks
- ✓ Operates through normal web browser without any client software installations
- ✓ Allows many (tens of) simultaneous users to monitor the application from anywhere and anytime
- ✓ Low cost, long life span and highly scalable solution



AutoLog Wireless Sensor

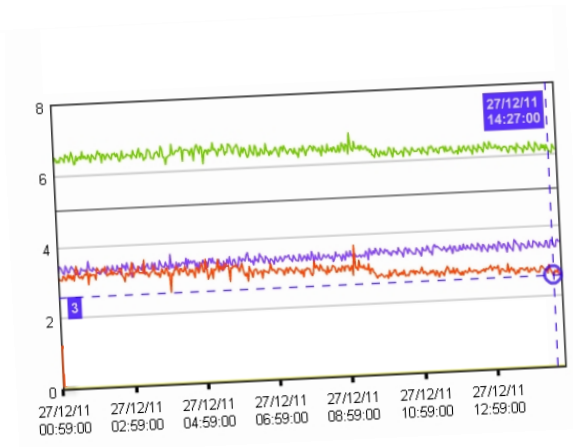
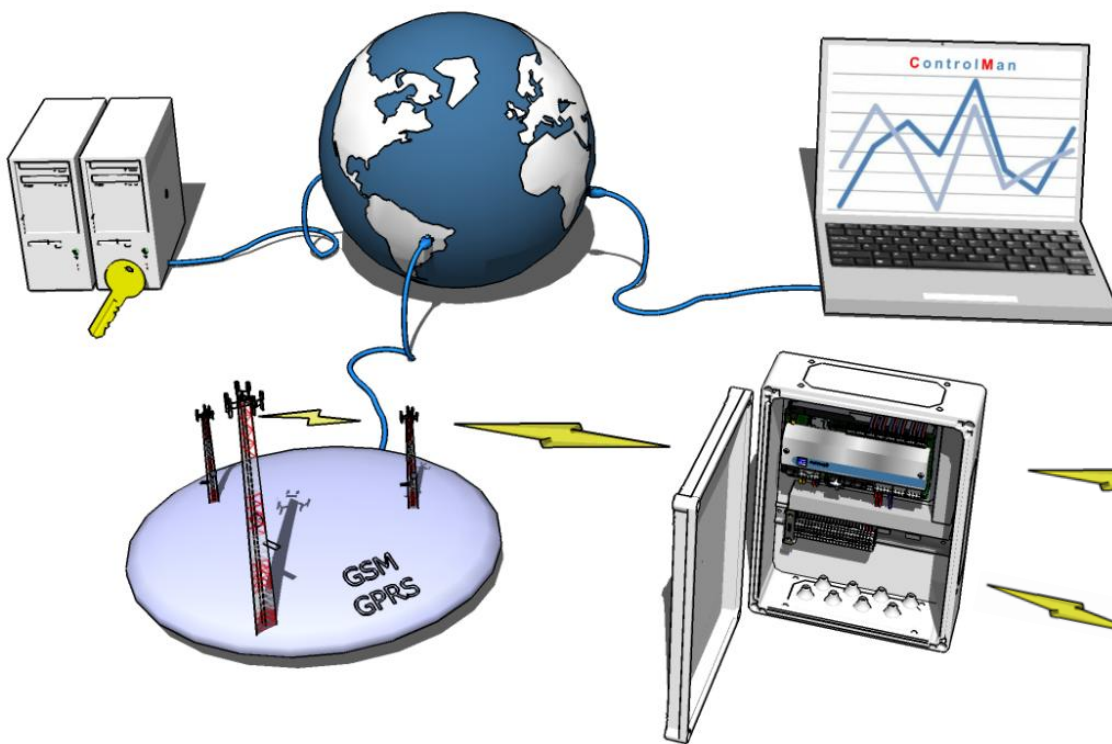
Manufactured by FF-Automation Oy



FF-AUTOMATION



AutoLog® ControlMan – Wireless supervision as Cloud Service



AutoLog® ControlMan

- Supervision as Cloud Service
- Just log in with Web browser!

AutoLog® GSM-RTU

- Programmable Logic Controller
- Communicates via GSM network

AutoLog® Wireless Sensors

- Uses free 868MHz frequency in EU
- Modbus interface, expandable network





AutoLog® ControlMan – Wireless supervision as Cloud Service

AutoLog® ControlMan:

Reliable, high quality product, designed and manufactured in Finland.

Thousands of operating remote monitoring and controlling solutions. For example for streetlight systems, pumping stations, groundwater measuring stations, factory's chemical supervisions, level measuring, cathodic protection, OEMs etc.

FF-Automation is established in 1976. AutoLog product development has continued over 35 years.

FF-Automation delivers complete solutions for remote supervision and control, together with our partners.

Call, send e-mail or come to visit! We can arrange free presentation and cost calculation of our system!

www.ff-automation.com



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