

Case study

Remote monitoring



Research projects – new energy system

Customer:



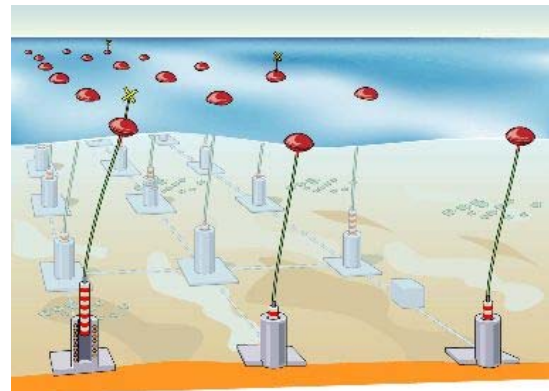
Uppsala University – Ångström laboratory

Founded in 1477, the University of Uppsala in Sweden is Scandinavia's oldest university and has produced world famous scientists such as Celsius, von Linné and Ångström. Alfred Nobel was awarded an honorary doctorate in 1893.

Objective:

Measure force and acceleration on linear generators.

Scientists from the university have developed a new type of energy system that uses energy from ocean waves, based on buoys and linear electric generators. Between 2005 and 2008, 10 systems with 10kW generators are being tested in the North Sea on the Swedish west coast. The scientists are using Mitec SatelLite60 GSM dataloggers and Mitec Monitor server software for measurement and supervision.



Solution:

- Mitec compact battery powered GSM measuring stations measure force and acceleration in the buoys at sea.
- Mitec servers collect data for storage, alarm and export to other systems.

Advantages:

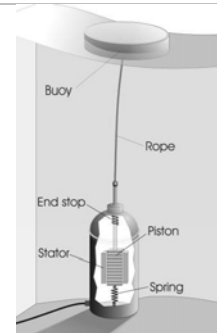
- Direct transfer of measuring data from the marine system to the scientist's computers.
- The low power consumption of the measuring stations reduces battery size.

Products

Measuring station:	SatelLite60-K compact GSM-measuring stations.
Communication:	GSM dual band 900/1800.
Power supply:	12V battery system on buoy.
Sensors:	One force and three acceleration sensors.
Data acquisition:	Mitec servers collect data and store in database.
Information distribution:	On Uppsala University local network.



SatelLite60-K



Principle of linear generator

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