LogoType™

Measurement applications

- Measuring a value or set of values
- **Sensor**- input device that capture phy sical data
- Analogue data

Give some data to describe the measurement that needs to be taken

This will be taken by devices that can automatically take measurements

Computer will Return value by displaying the values to the user

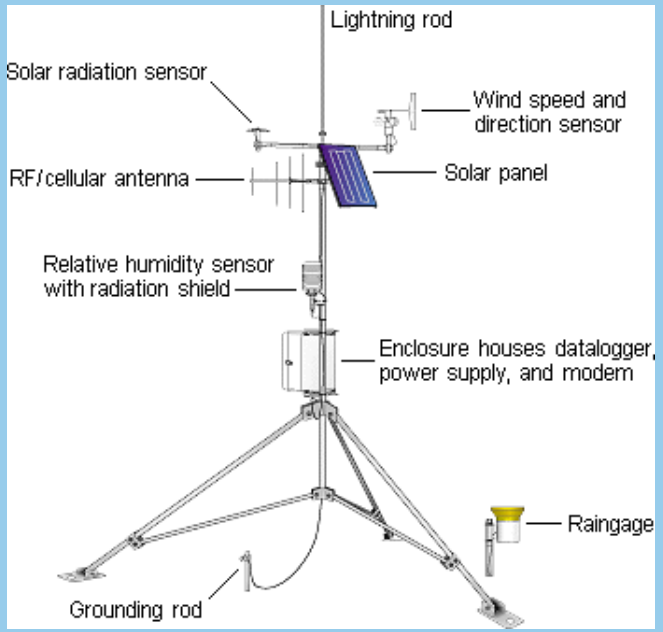
ICT is better than a human

- Provides great precisions in taking me asurements(more precise, safer).
- This is very important for:

Weather stations

Reactor vessel

- Reliability
- Non-interface
- Faster and easier way of analyzing
- Automated systems



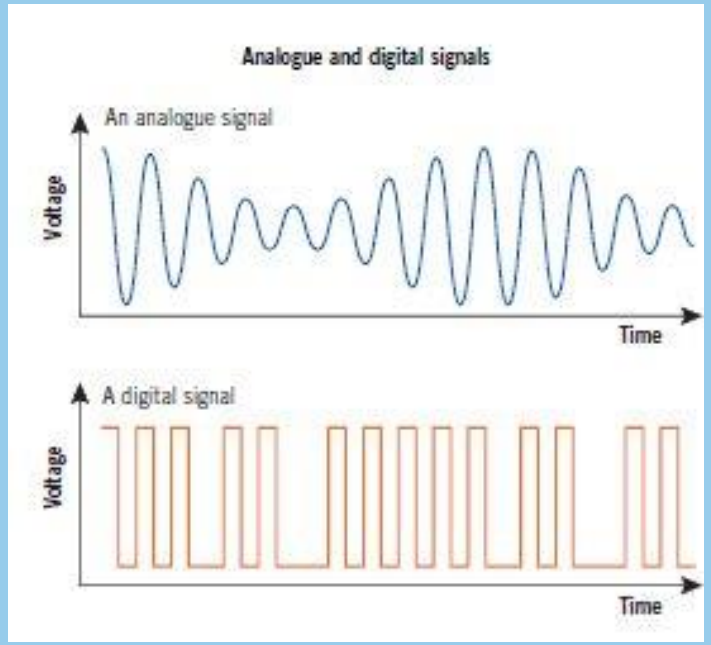
Analogue and digital data

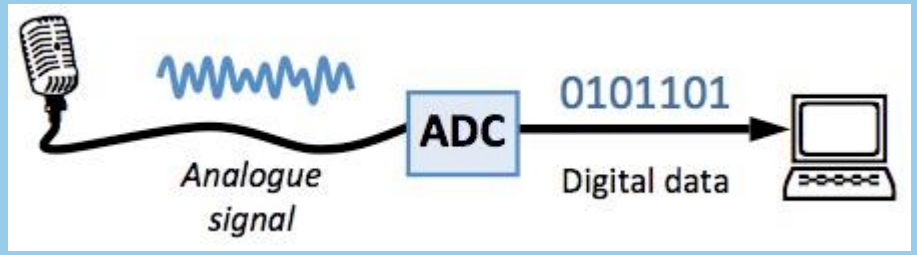
Analogue

- Audio or video signals
- Continuous
- All natural signs: human voice, animal sounds and notes by played by instru ments
- **Device in its original, ph ysical form. Typically ou tput from a sensor.**

Digital

- binary form: digital bits 1 s and 0s
- **Data in electronic form, suitable for storage on a computer.**


Analogue and digital signals
An analogue signal
Voltage
Time
A digital signal
Voltage
Time


ADC
0101101
Analogue signal
Digital data

Use of microprocessors and computers in pollution monitoring

Computers;

- Monitors the quality of the environment
- Measures the levels of pollution in the environment
- Reports results over long time periods

To measure levels of gases like carbon monoxide and nitrogen oxide;

- Install specialized sensors which not only measures but also reports back to the computer via an analogue to digital converter.
- Draw graphs
- Store data with time interval
- Results in spreadsheet
- Results using table, graph

The use of microprocessors and computers in hospital intensive care units

- ICT can enhance patient care by;

Improving access to the clinical data of a patient

Reducing errors

Ensuring that compliance with quality standard is observed

Monitoring a patient's vital signs

Providing support for decision-making.

THANKS FOR YOUR ATTENTION

ANY QUESTIONS? NO? GREAT! BYE

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