

Chapter 7: Monitoring and Control Systems

⇒ Monitoring System

- Monitors some state external to computer system
- No changes made to environment by the system, hence No FEEDBACK

⇒ Control system

- Regulates the behaviour of other devices or systems
- Event-driven system
 - The controller alters the state of the system in response to some event
- Time driven system
 - The controller takes action at a specific point in time

⇒ Hardware used in a system

1. Sensor - Measures analogue property and transmits it to a processing unit, generally as an electrical or optical signal
2. Actuators - Switch on/off "heavy appliances"
3. ADC - Analogue to Digital converter
4. Transmission Cables - to transfer signals.

⇒ Feedback Systems

- Output from system affects the input of sensors
- Ensures system operates within the given criteria
- By enabling the system output to affect subsequent system inputs, it may cause a change in the actions taken by the system.
- Thus enables the system to automatically adjust conditions in a continuous process