



ITWS-II

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April 12, 2018

Intelligent Systems

- ▶ Sense:
Different types of sensors
- ▶ Communicate:
Wired or Wireless Networks
- ▶ Automate to Optimize:
Controllers and Actuators

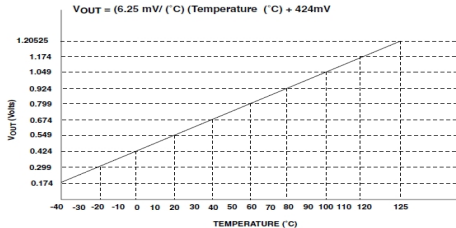
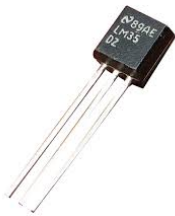
Sensors: a device that detects and responds to some type of input from the physical environment

Communicate: Sensed/monitored data should be transported to local/central gateway

Controllers and Actuators: Using Sensor data to arrive at control strategies for better utilization of resources using Actuators.

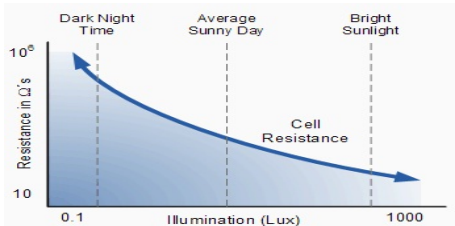
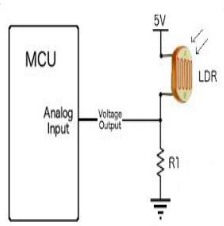
Sensors - Example - Temperature

Temperature Sensor - LM35: Increase in output voltage is proportional to temperature



Sensors - Example - Light Dependent Resistor

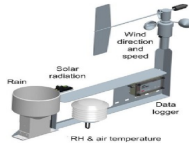
LDR : resistance is decreased when light falls on them. R increases in the dark



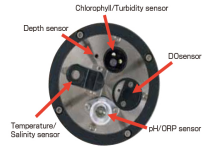
Sensors - Measure or Monitor



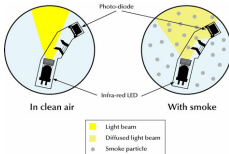
(e) Pollution



(f) Weather



(g) Water



(h) Safety



(i) Current and voltage



(j) Presence

Actuators

