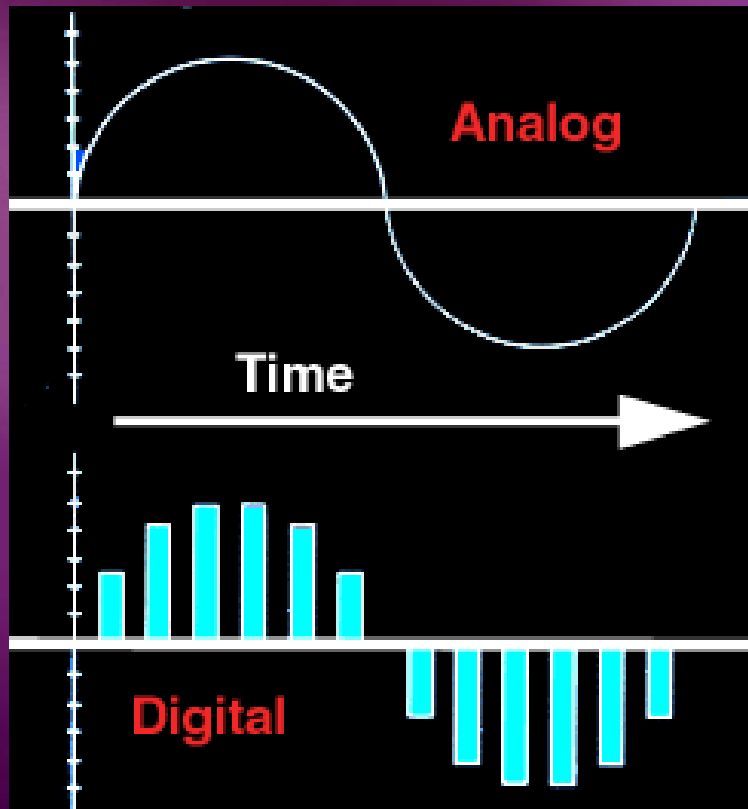


ELECTRONICS

CHAPTER 22

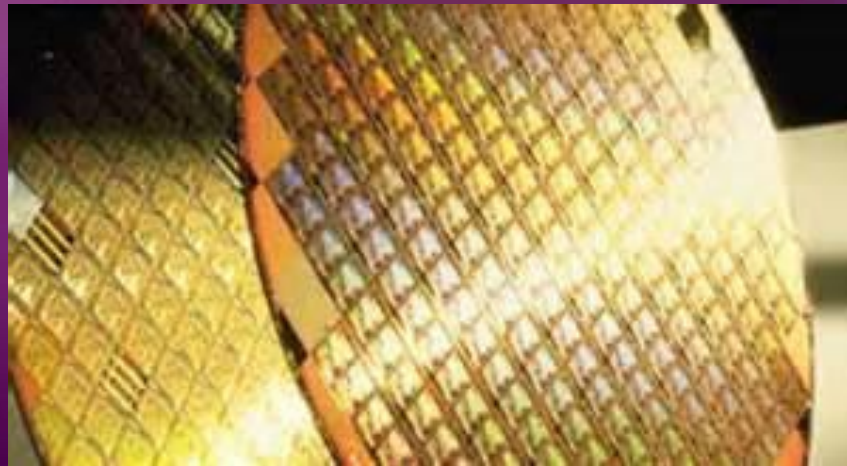
22.1 Electronic Signals and Semiconductors

- There are two basic kinds of electronic signals: analog signals and digital signals.



22.1 Electronic Signals and Semiconductors

- The two types of semiconductors can be combined in different ways to make diodes, transistors, and integrated circuits.



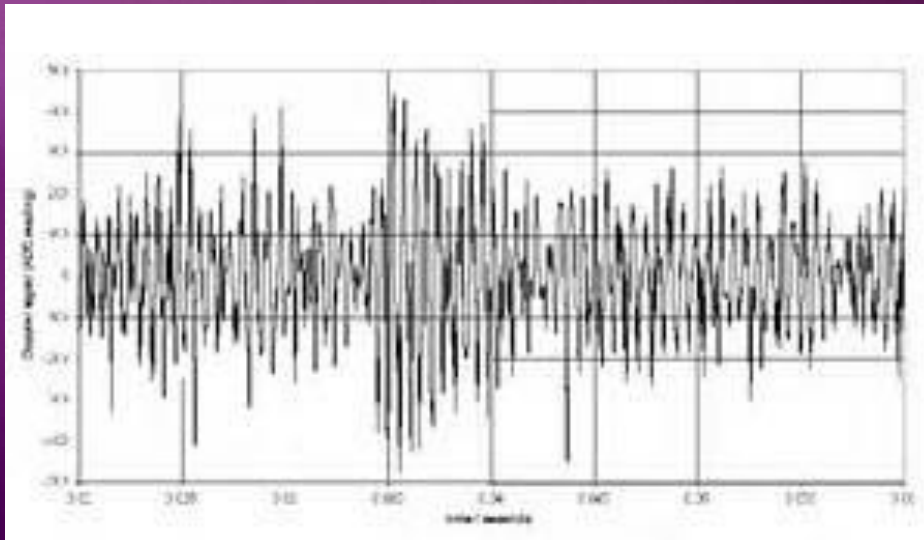
electronics

- The use of electric current to control, communicate, and process information.



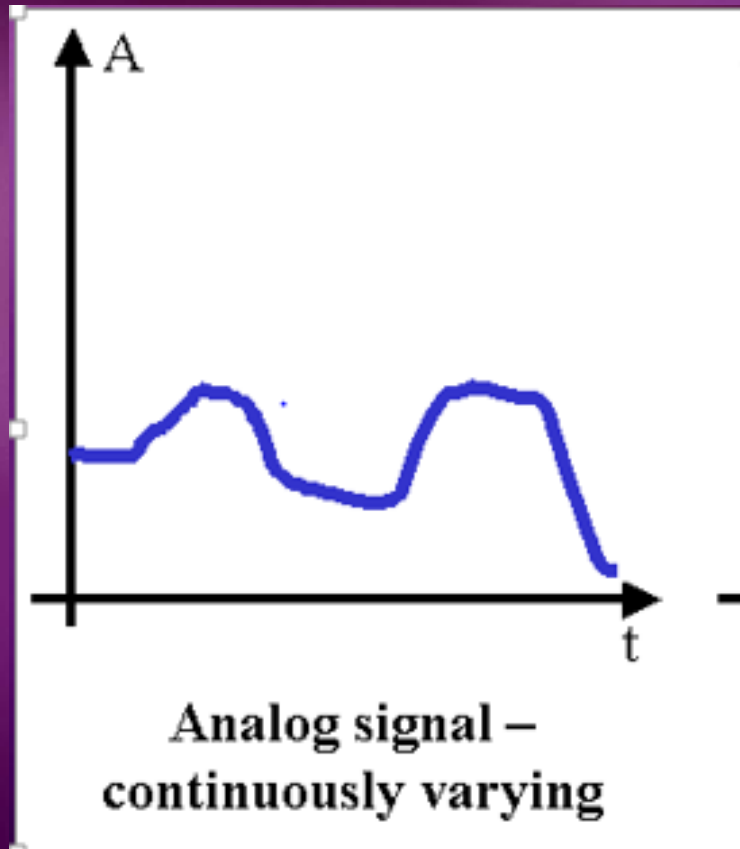
electronic signal

- A varying electric current that represents information.



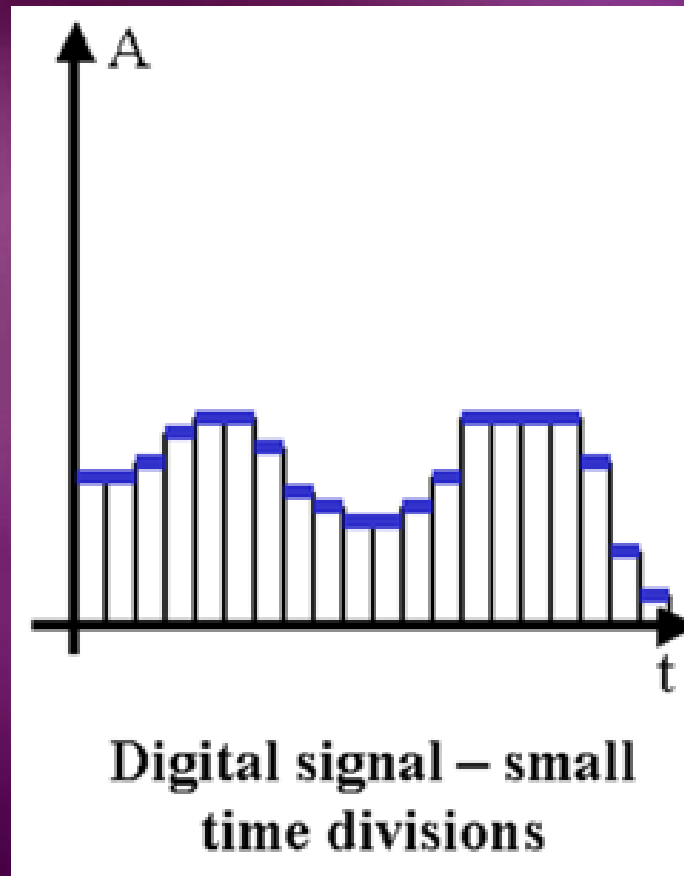
analog signal

- An electric current that is varied smoothly to represent information.



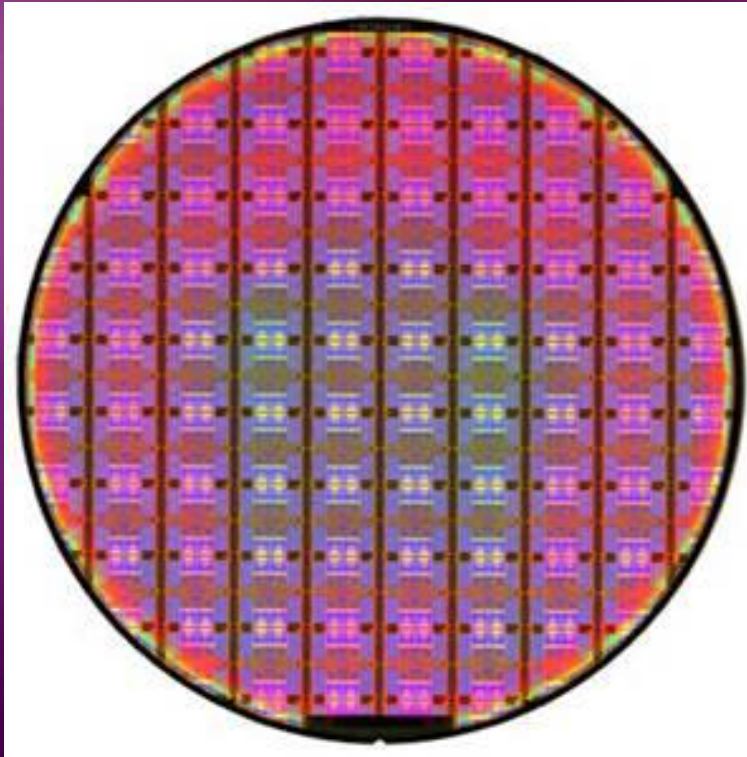
digital signal

- Pulses of current used to represent information.



semiconductor

- A material that conducts current under certain conditions.



diode

- An electronic component that consists of layers of two types of semiconductors.



transistor

- A solid-state component used to amplify an electronic signal or to switch current on and off.



integrated circuit

- A circuit that has been manufactured on a chip which can contain thousands of diodes, transistors, and resistors.



22.2 Electronic Communication

- In a telephone, sound is changed into an electronic signal that is transmitted and then transformed back into sound.



22.2 Electronic Communication

- Sound can be reproduced using an analog device such as a phonograph or a digital device such as a CD player.



22.2 Electronic Communication

- Voices and music on an AM or FM radio station are electronic signals carried by an electromagnetic wave.



22.2 Electronic Communication

- Electromagnetic waves can be used to carry images as well as sound.



transmitter

- A device that transfers signals from one form to another.



receiver

- A device that receives radio waves and converts them into a sound or light signal.



22.3 Computers

- Computer information is represented in the binary system.



22.3 Computers

- Computer hardware includes a central processing unit, input devices, output devices, and memory storage devices.



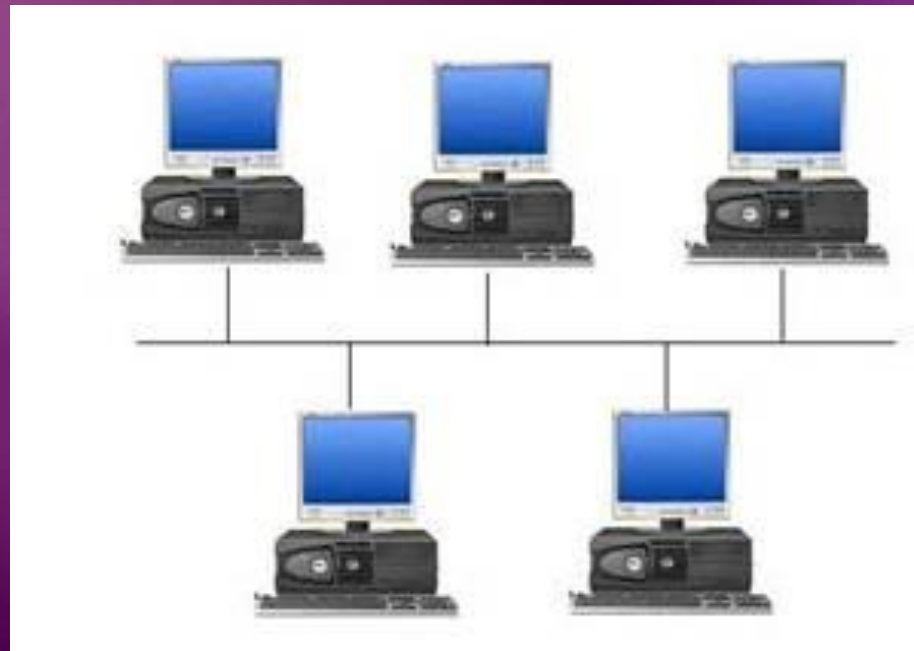
22.3 Computers

- Software is a set of instructions that directs the computer hardware to perform operations on stored information.



22.3 Computers

- A computer network allows people in different locations to share information and software.



computer

- An electronic device that stores, processes and retrieves information.



binary system

- A number system using combinations of only two digits, 0 and 1



hardware

- The permanent components of a computer, including the central processing unit and input, output and memory storage devices.



central processing unit (CPU)

- Directs the operation of a computer, performs logical operations and calculations.



input device

- A device that feeds data to a CPU



output device

- A device that presents data from a computer.



software

- A detailed set of instructions that directs the computer hardware to perform operations on stored information



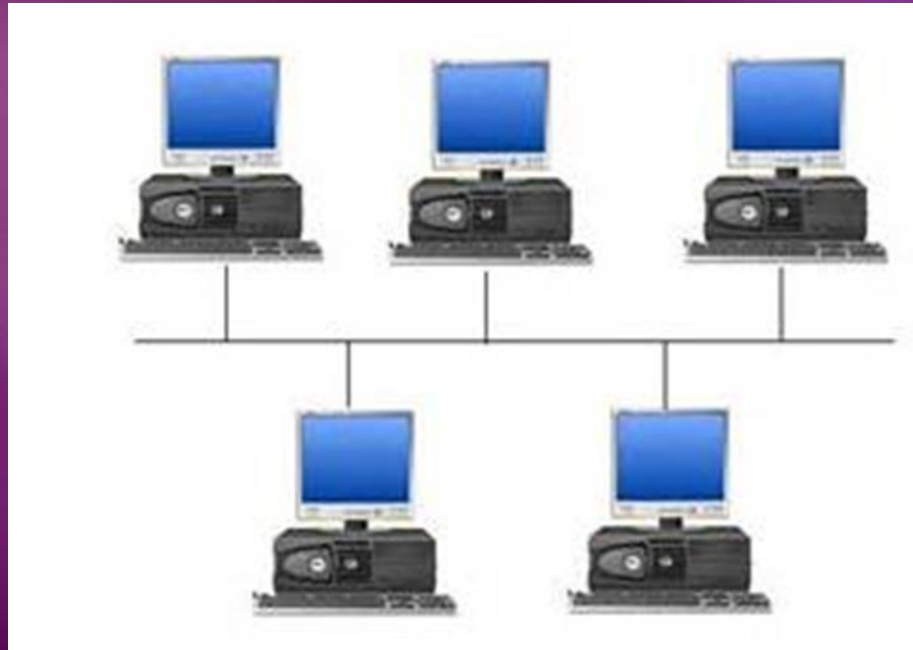
computer programmer

- A person who uses computer languages to write programs, or set of operation instructions for computers.



computer network

- A group of computers connected by cables or telephone lines that allows people to share information.



Internet

- An international computer network that shares data, information and news.



World Wide Web

- A part of the internet that allows the displaying and viewing of text, pictures, video, and sound.

