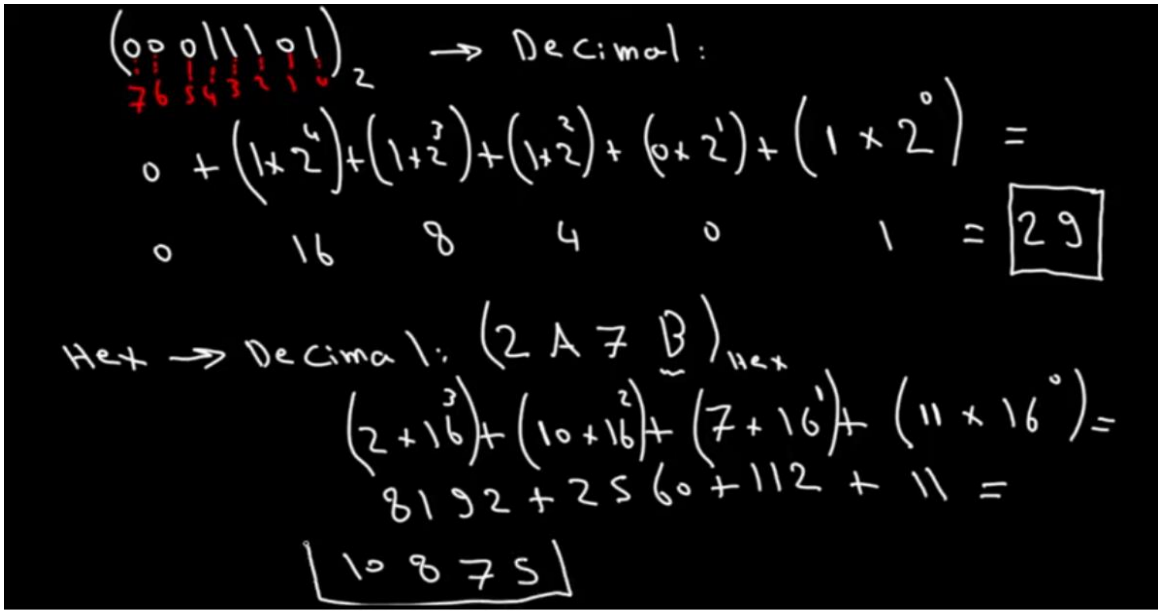
Fifth video

How to convert from any numbering system to decimal system?



Multiply each number by the base of the system powered by its position number.

Binary	Hex
0000	0
0001	1
0010	2
0011	3
0100	4
0101	5
0110	6
0111	7
1000	8
1001	9
1010	A
1011	B
1100	C
1101	D
1110	E
1111	F

Each number in the HEXADECIMAL system is represented by 4 numbers In binary system called nibble.

The last bit in the number usually considered as the sign of the number if the number is to be signed otherwise all the bits represent the number as a whole

Seventh video

What is the mean of transistors?

Transistors is the combination of two words which are transport and resistors.

Transistor may be considered as a gate or a key to pass current to the circuit.

NPN transistor “N-Channel in case of MOSFET” must have a voltage difference between base” Gate” and emitter” Source” in order to pass current where base voltage must be much greater than emitter voltage also emitter” Source” is always connected to the ground.

PNP transistor “P-Channel in case of MOSFET” is the same operating concept as NPN but differs only at emitter voltage must be much greater than base voltage also emitter” Source” is always connected to the positive terminal.

Eighth video

- 1 Kilobyte = 1024 bytes
- 1 Megabyte = 1024 kilobytes
- 1 Gigabyte = 1024 megabytes
- 1 Terabyte = 10234 gigabytes

- To evaluate the available number of address buses use 2^n.
- The number of data buses not always equal to the address buses.