

## Research work 2

### 1. 5 microcontroller supplier companies-

1. Infineon Technologies.
2. ON Semiconductor.
3. ROHM Semiconductor.
4. Silicon Labs.
5. Texas Instruments.
6. Maxim Integrated.
7. Zilog
8. NXP.

### 2. 5 microprocessor supplier companies

1. Altera.
2. AMD.
3. Apollo.
4. ARM.
5. Atmel

### 3. What is SOC

A system on a chip or system-on-chip is an integrated circuit that integrates most or all components of a computer or other electronic system. The components include

- Programmable processor
- Memory
- Input/output interfaces
- Ethernet shield

#### Examples

1. Smartphones
2. Tablets
3. Smart tv
4. Smart watch

### 4. Opcode

Is is a type of instruction to perform some operation like ADD, SUB, MUL, MOV.

#### EXAMPLES

MOV C,A

#### HEXCODE

Hexadecimal Number System uses 16 digits from 0 to 9 and A to F. The alphabets A to F represent decimal numbers from 10 to 15. The base of Hexadecimal numbers system is 16. There are sixteen numerals required.

5. Advantages of Digital system over Analog system

1. Higher security.
2. Negligible or zero distortion due to noise during transmission.
3. The rate of transmission is higher.
4. Multidirectional transmission concurrently and longer distance transmission is possible.
5. Video, Audio, and Text messages can be translated into the device language.