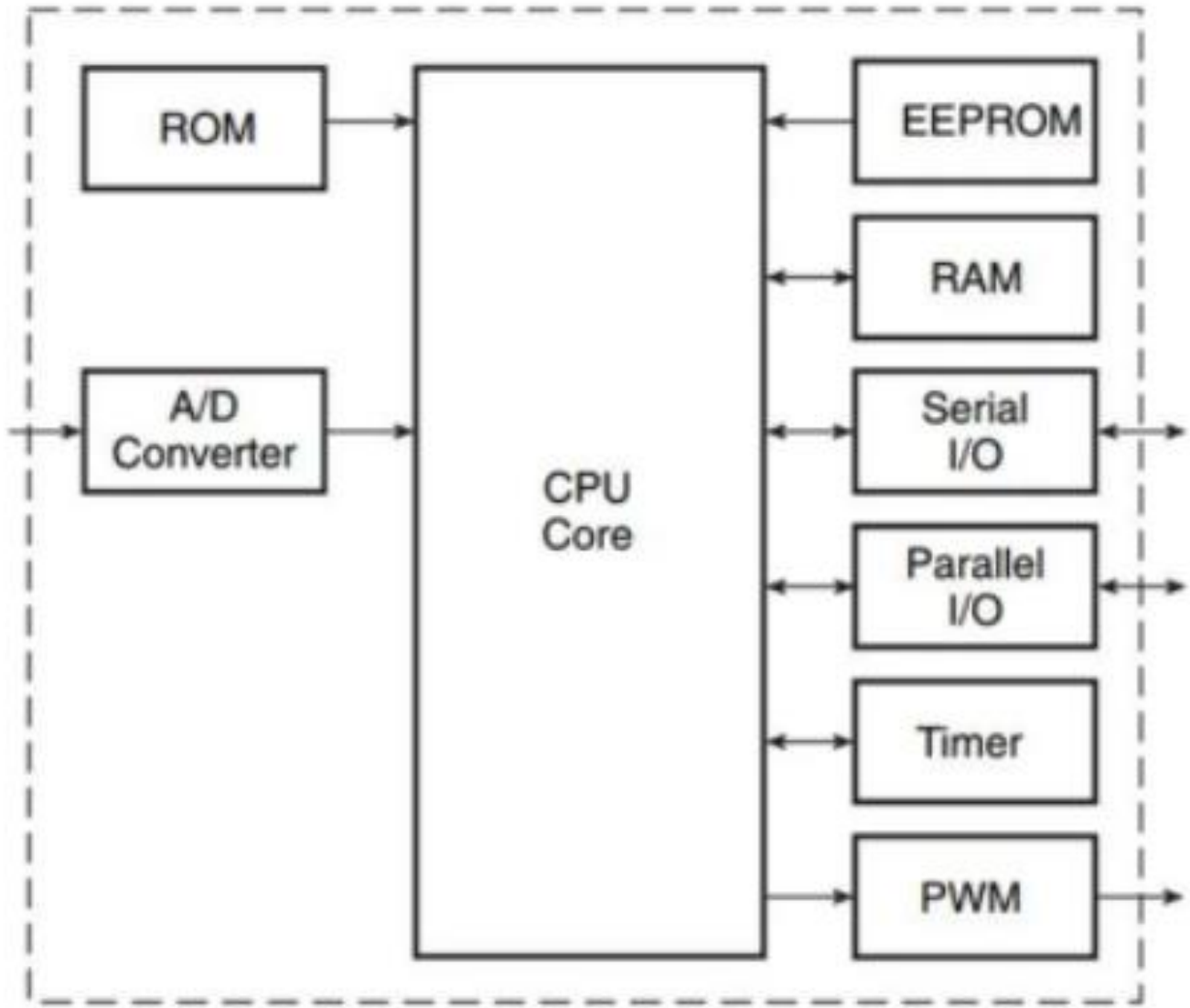
CSE

Microcontroller Application

Created by
Md. Forhad Hossain


ROM
A/D Converter
CPU Core
EEPROM
RAM
Serial I/O
Parallel I/O
Timer
PWM

Central Processing Unit (CPU)

- The central processing unit processes the program. It executes the instructions stored in the program memory pointed to by the program counter in synchronization with the clock signal.

ALU

- The arithmetic/logic unit (ALU) performs mathematical and logical operations on data.

Oscillator

- A complex digital device that generates steady pulse rate required for timing. All of the separate functions are controlled by one central timing system. The timing pulse provides the basis for proper sequence of all the separate sections of the microcontroller chip.

Read Only Memory (ROM)

ROM holds the program instructions and the constant data. Microcontrollers use one or more of the following memory types for this purpose:

- ROM (mask-programmed ROM),
- PROM (one-time programmable ROM, which is not field programmable),
- EPROM (field programmable and usually UV erasable),
- EEPROM (field programmable, electrically erasable, byte erasable) and flash (similar to EEPROM technology).
- Microcontrollers can have 4K, 8K and 16K, etc. of ROM

Thank You