

# Microprocessors and Micro controllers

## CSE3815

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## Evolution of Microprocessors

There should be overview chart of difference between intel 4004 to pentium 4.

## Microprocessors:

'-->Is a semiconductor device consisting of electronics logic circuit.  
'--->Manufactured by using various fabrication schemes.  
'---->Capable of performing computing functions.  
'----->Capable of transporting data/information.

Can be divided into 3 segments:

- (-)Arithmetic and logic unit
- (-)Registers unit
- (-)Control unit

## Von Neumann Machine:

Von Neumann machine may refer to: Von Neumann architecture, a conceptual model of nearly all computer architecture

Three key concepts:

- (-)Data and instructions are stored in a single set of read-write memory.
- (-)Contents of memory are accessed by memory address without regard to the type of data.
- (-)Execution occurs in a sequential fashion, unless explicitly stated otherwise.