## MICROPROCESSOR HISTORY

## DIFFERENT PROCESSORS AVAILABLE



ProcessorSI ot

## Development of Intel Microprocessors

- 8086-1979
- 286-1982
- 386-1985
- 486-1989
- Pentium - 1993
- Pentium Pro-1995
- Pentium MMX -1997
- Pentium II-1997
- Pentium II Celeron - 1998
- Pentium II Zeon-1998
- Pentium III-1999
- Pentium III Zeon - 1999
- Pentium IV - 2000
- Pentium IV Zeon - 2001


## GENERATION OF PROCESSORS

| Processor | Bits | Speed |
| :---: | :---: | :---: |
| 8080 | 8 | 2 MHz |
| 8086 | 16 | $4.5-10$ <br> MHz |
| 8088 | 16 | $4.5-10$ <br> MHz |
| 80286 | 16 | $10-20$ <br> MHz |
| 80386 | 32 | $20-40$ <br> MHz |
| 80486 | 32 | $40-133$ <br> MHz |

## GENERATION OF PROCESSORS

| Processor | Bits | Speed |
| :---: | :---: | :---: |
| Pentium | 32 | $\begin{gathered} 60-233 \\ \mathrm{MHz} \end{gathered}$ |
| Pentium Pro | 32 | $\begin{gathered} 150-200 \\ M H z \end{gathered}$ |
| Pentium II, Celeron, Xeon | 32 | $\begin{gathered} 233-450 \\ \mathrm{MHz} \end{gathered}$ |
| Pentium III, Celeron , Xeon | 32 | $\begin{gathered} \text { 450 MHz - } \\ \text { 1.4 GHz } \end{gathered}$ |
| Pentium IV, Celeron, Xeon | 32 | $\begin{gathered} 1.3 \mathrm{GHz}- \\ 3.8 \mathrm{GHz} \end{gathered}$ |
| Itanium | 64 | $\begin{gathered} 800 \mathrm{MHz}- \\ \text { 3.0 GHz } \end{gathered}$ |

## Intel 4004

$>$ Introduced in 1971.
$>$ It was the first microprocessor by Intel.
$>$ It was a 4-bit $\mu$ P.
$>$ Its clock speed was 740 KHz .
> It had 2,300 transistors.
> It could execute around 60,000 instructions per second.

## Intel 4040

$>$ Introduced in 1971.
$>$ It was also 4-bit $\mu$ P.

## 8~bit Microprocessors

## Intel 8008


$>$ Introduced in 1972.
$>$ It was first 8-bit $\mu \mathrm{P}$.
$>$ Its clock speed was 500 KHz.
>Could execute 50,000 instructions per second.

## Intel 8080

$>$ Introduced in 1974.
$=$ pgagga
M0577
(C) IMTEL :?
$\Rightarrow$ It was also 8-bit $\mu$ P.
$>$ Its clock speed was 2 MHz .
$>$ It had 6,000
transistors.

## Intel $8085>$ Introduced in 1976.

$>$ It was also 8-bit $\mu$ P.
$>$ Its clock speed was 3 MHz .
$>$ Its data bus is 8 -bit and
 address bus is 16 -bit.
$>$ It had 6,500 transistors.
$>$ Could execute 7,69,230 instructions per second.
$>$ It could access 64 KB of memory.
$>$ It had 246 instructions.

## 16~bit Microprocessors

## Int introducedin 1978. <br> Inte 8086 <br> $>$ It was first 16-bit $\mu$ P.

$>$ Its clock speed is $4.77 \mathrm{MHz}, 8$ MHz and 10 MHz , depending on the version.
$>$ Its data bus is 16 -bit and address bus is 20-bit.
$>$ It had 29,000 transistors.
> Could execute 2.5 million instructions per second.
$>$ It could access 1 MB of memory.
$>$ It had 22,000 instructions.
$>$ It had Multinlv and Divide

