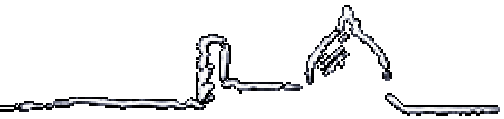
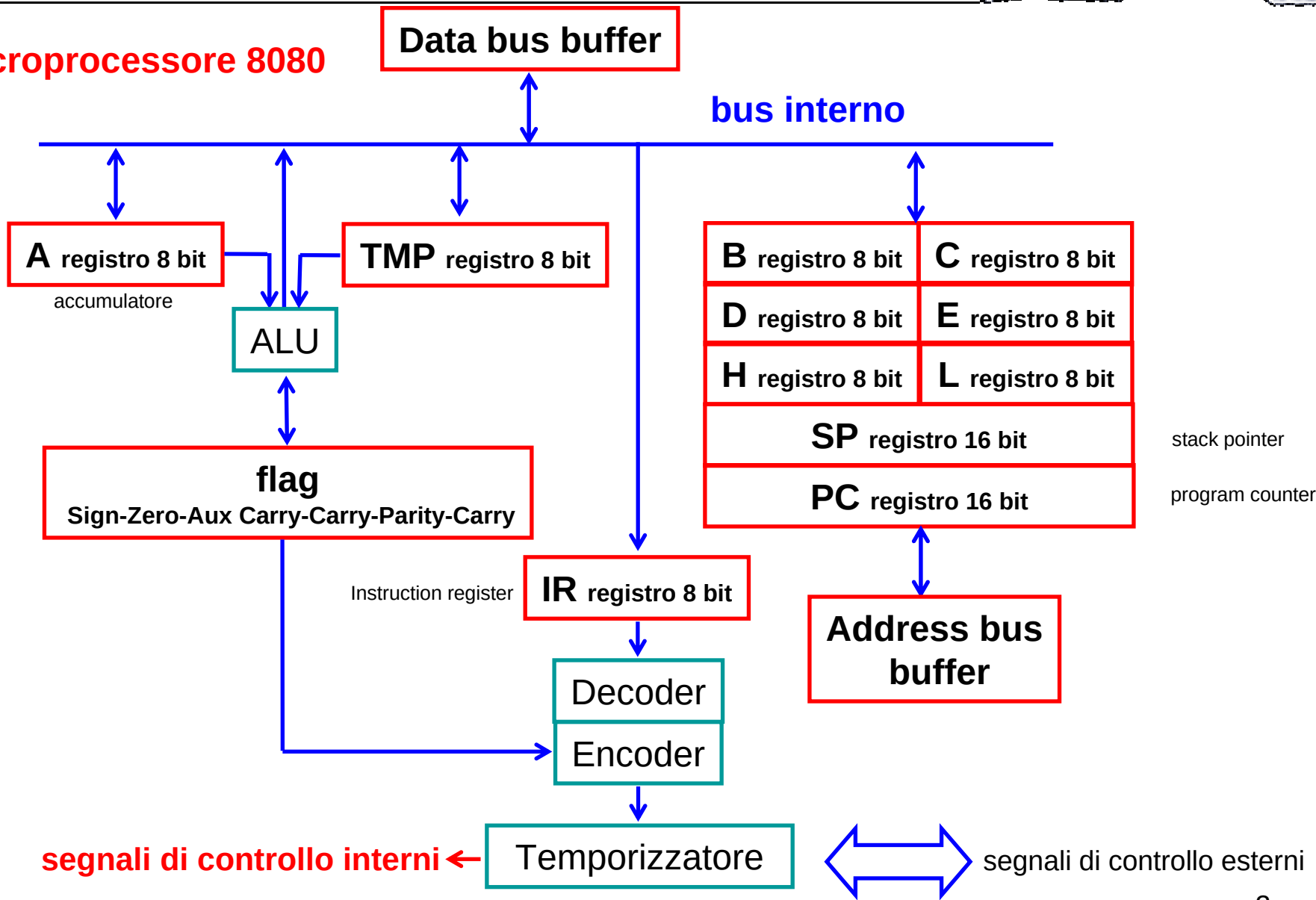
Facoltà d' Ingegneria
Dipartimento di Elettronica e Telecomunicazioni

Bus interni a PC

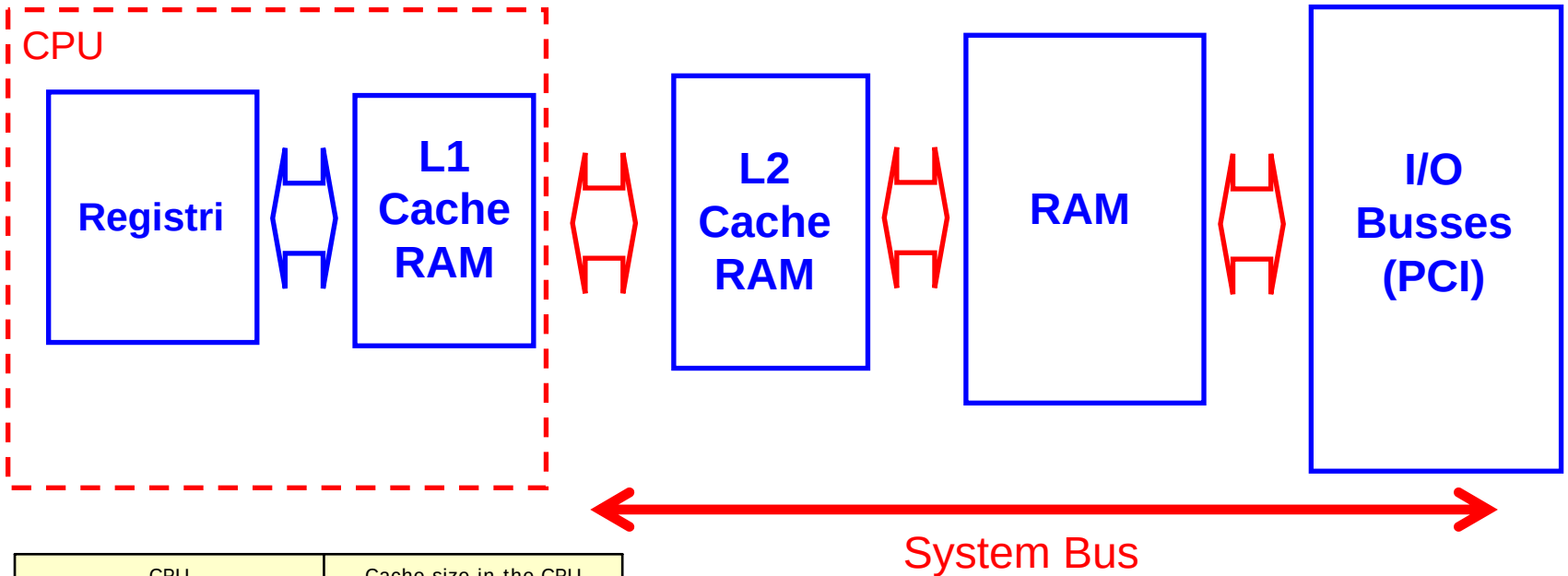
Massimiliano Pieraccini



Microprocessore 8080

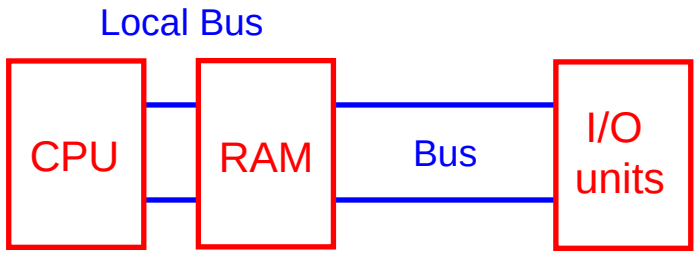


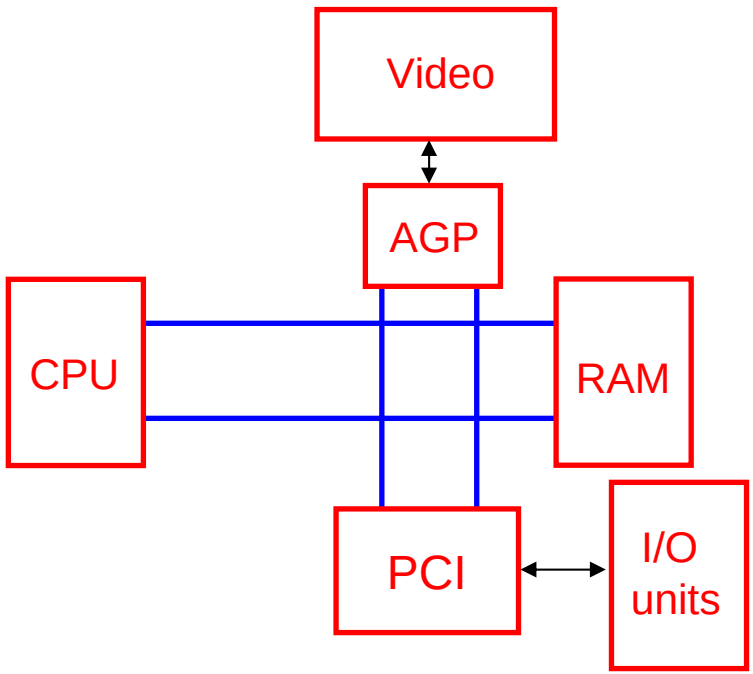
Bus



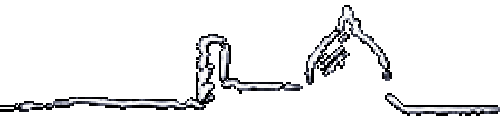
CPU	Cache size in the CPU
80486DX and DX2	8 KB L1
80486DX4	16 KB L1
Pentium	16 KB L1
Pentium Pro	16 KB L1 + 256 KB L2 (some 512 KB L2)
Pentium MMX	32 KB L1
AMD K6 and K6-2	64 KB L1
Pentium II and III	32 KB L1
Celeron	32 KB L1 + 128 KB L2
Pentium III Cumine	32 KB L1 + 256 KB L2
AMD K6-3	64 KB L1 + 256 KB L2
AMD K7 Athlon	128 KB L1
AMD Duron	128 KB L1 + 64 KB L2
AMD Athlon Thunderbird	128 KB L1 + 256 KB L2

Bus





Bus	Year	Bus width	Bus speed	Max. throughput (theoretical)
PC and XT	1980 -82	8 bit	Synchronous with CPU: 4.77 - 6 MHz	4-6 MBps
ISA (AT) Simple bus.	1984	16 bit	Synchronous: 8-10 MHz	8 MBps
MCA. Advanced, intelligent bus by IBM.	1987	32 bit	Asynchronous : 10.33 MHz	40 MBps
EISA. Bus for servers.	1988	32 bit	Synchronous: max. 8 MHz	32 MBps
VL. High speed bus, used in 486s.	1993	32 bit	Synchronous: 33-50 MHz	100-160 MBps
PCI. Intelligent, advanced high speed bus.	1993	32 bit	Asynchronous : 33 MHz	132 MBps



Indirizzamento del registro della periferica

1) Memory mapped (ad esempio DAC a ADC)

2) I/O distinto

(accesso come a una memoria, ma viene attivato una linea di controllo)