Microprocessor & Interfacing Lecture 3 Architecture of 8085--1

PARUL BANSAL

ASST PROFESSOR

ECS DEPARTMENT

DRONACHARYA COLLEGE OF ENGINEERING

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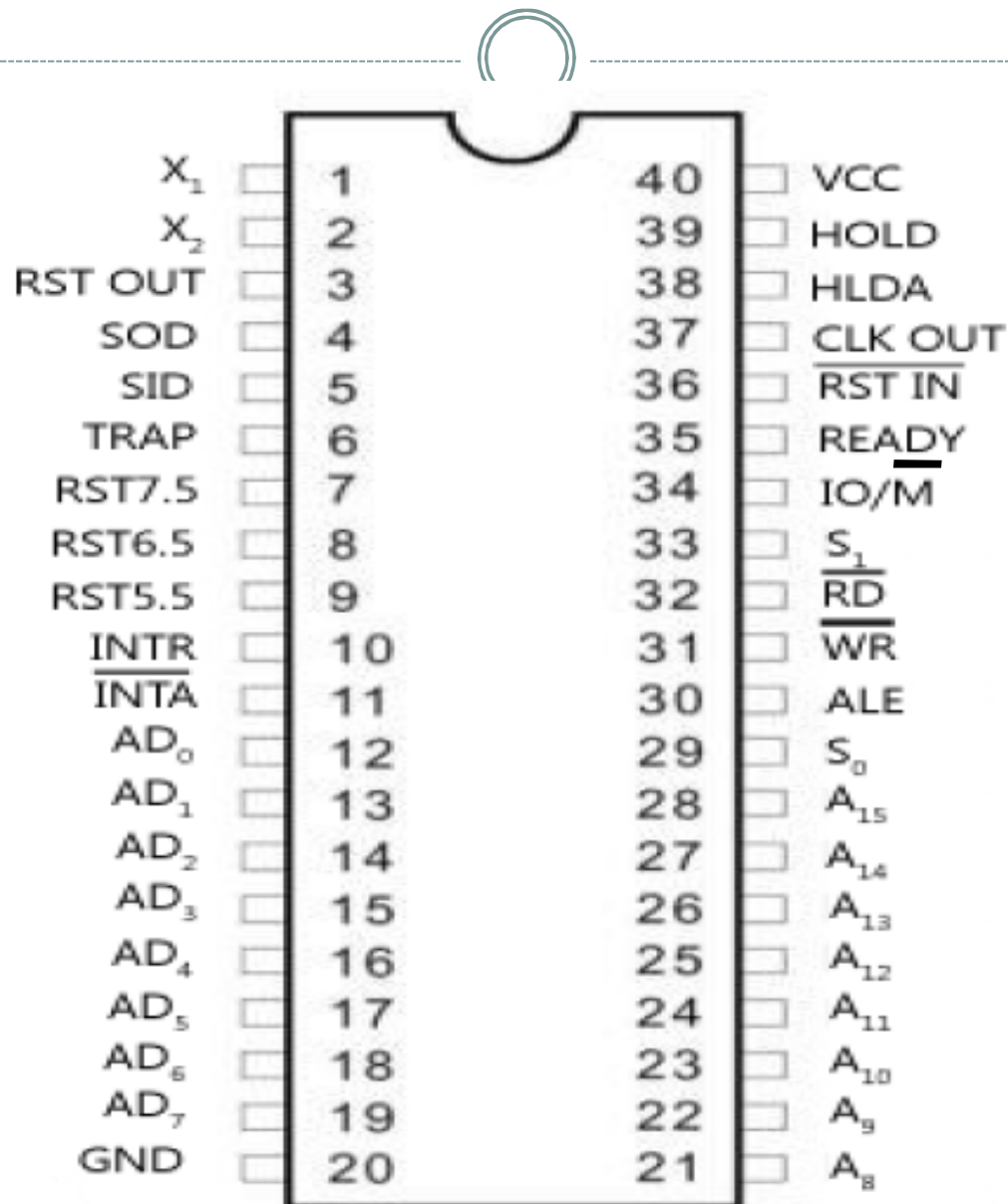- 8085 Features

Introduction

- A microprocessor is a multipurpose, programmable logic device that reads binary instructions from a storage device called memory accepts binary data as input and processes data according to those instructions and provides result as output.

Applications of Microprocessor
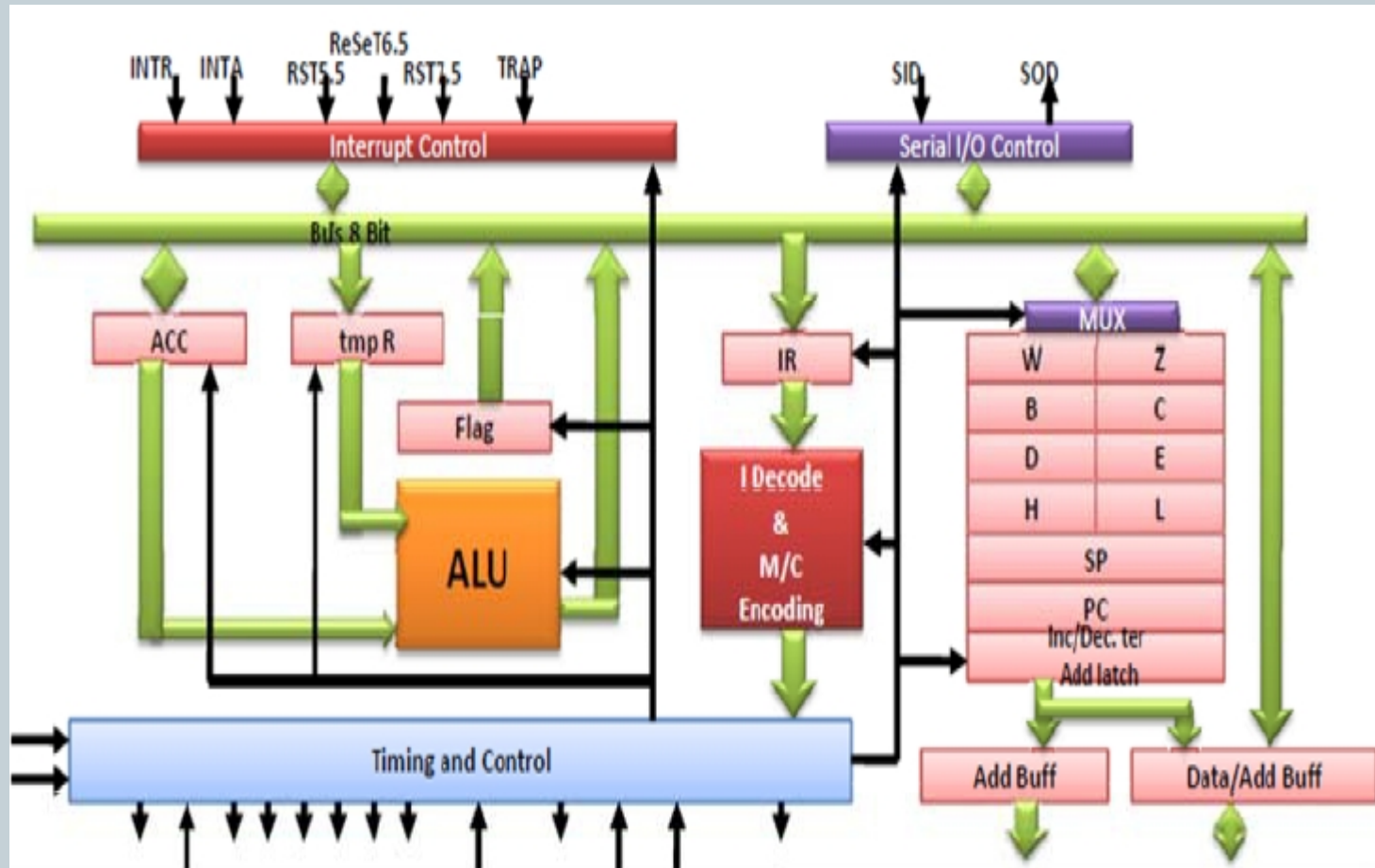
- It is used in many microprocessor based electronic devices

i. For measurements, display and control of current, voltage, temperature, pressure, etc.

ii. For traffic control and industrial tool control.

iii. For speed control of machines.

8085 Pin Diagram

X_1	1	40	VCC
X_2	2	39	HOLD
RST OUT	3	38	HLDA
SOD	4	37	CLK OUT
SID	5	36	$\overline{RST\ IN}$
TRAP	6	35	READY
RST7.5	7	34	IO/$\overline{M}$
RST6.5	8	33	S_1
RST5.5	9	32	$\overline{RD}$
INTR	10	31	$\overline{WR}$
$\overline{INTA}$	11	30	ALE
AD_0	12	29	S_0
AD_1	13	28	A_{15}
AD_2	14	27	A_{14}
AD_3	15	26	A_{13}
AD_4	16	25	A_{12}
AD_5	17	24	A_{11}
AD_6	18	23	A_{10}
AD_7	19	22	A_9
GND	20	21	A_8

8085 Architecture

Features

- The features of INTEL 8085 are :

1. It is an 8 bit processor.

2. It is a single chip N-MOS device with 40 pins.

3. It has multiplexed address and data bus.(AD0-AD7).

4. It works on 5 Volt dc power supply.

5. The maximum clock frequency is 3 MHz while minimum frequency is 500kHz.

6. It provides 74 instructions with 5 different addressing modes.

Power Supply & Clock Frequency

- 8085 require +5V power supply and 3MHz Clock frequency.