



# MICROPROCESSOR

BCA 3<sup>RD</sup> SEMESTER 2020

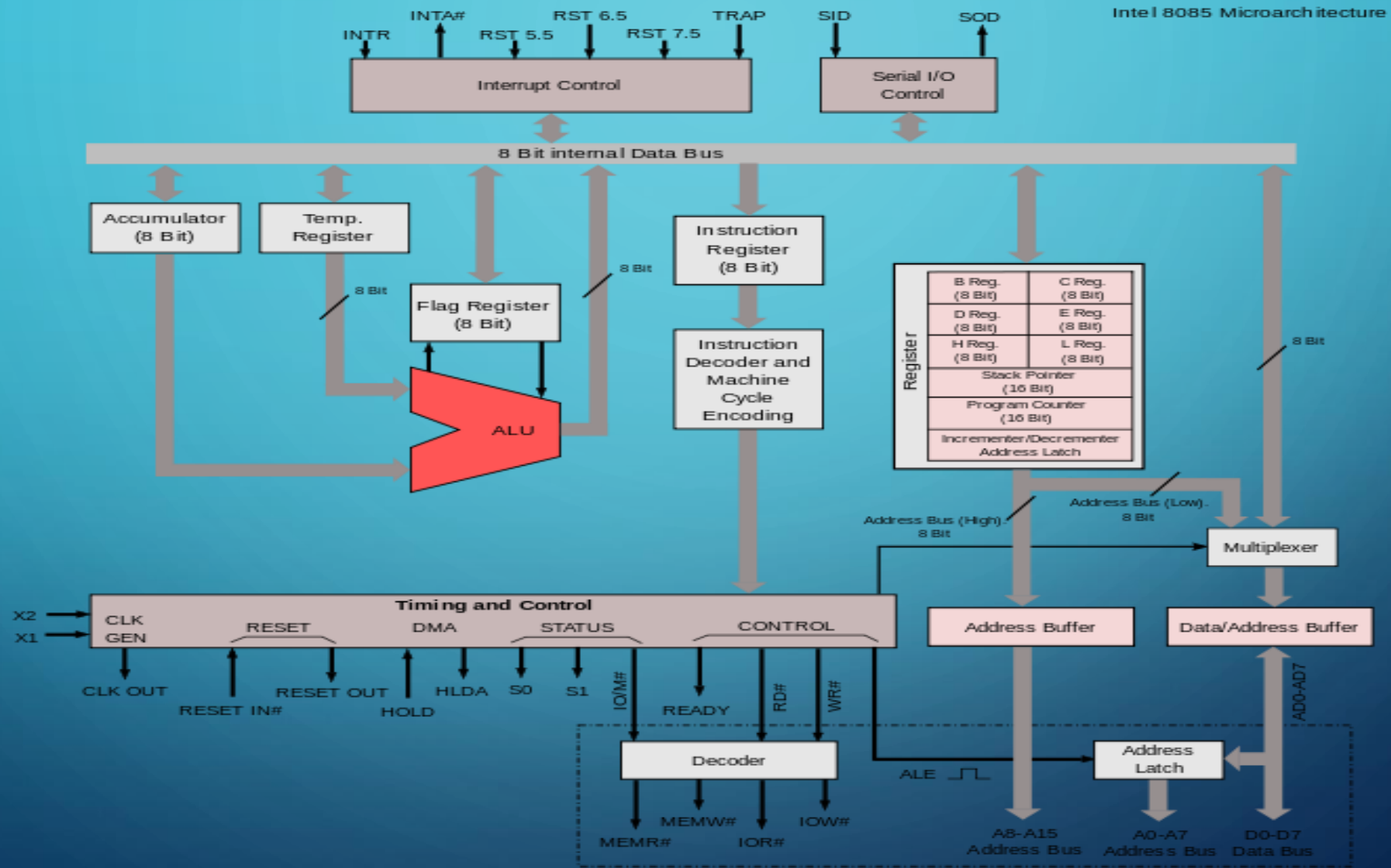
**LECTURE- 3**

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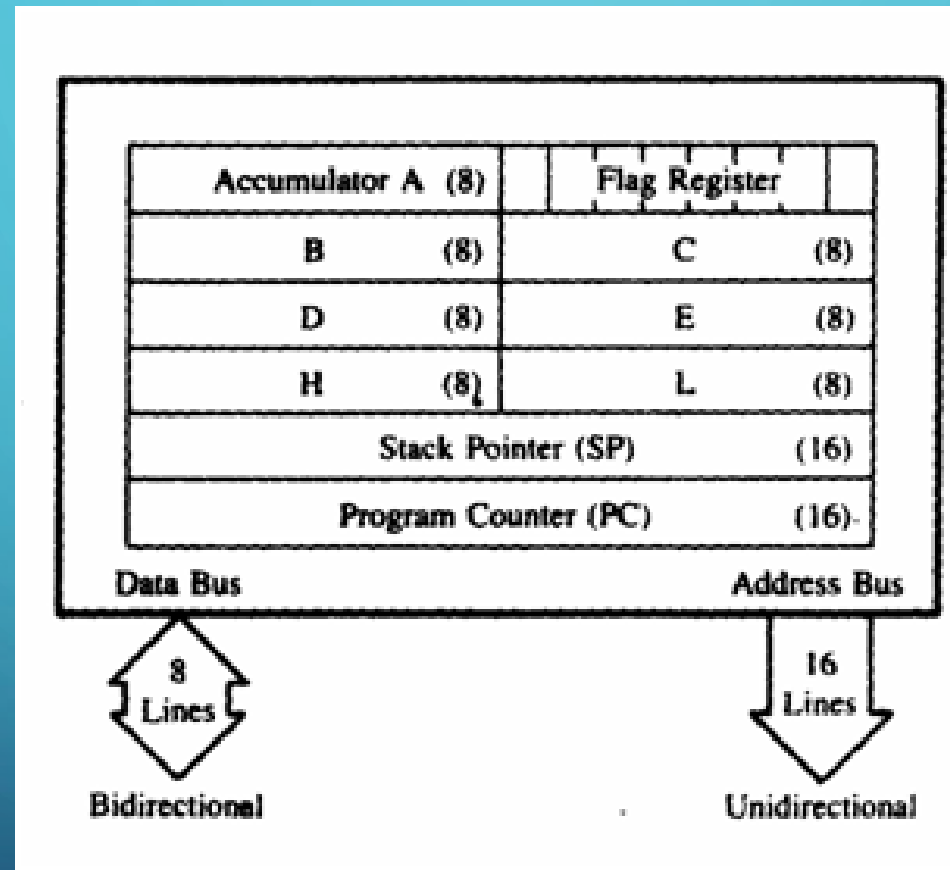
# 8085 MP ARCHITECTURE



# 8085 MP ARCHITECTURE (CONT.)

- **Control Unit**
- **Arithmetic Logic Unit**

# PROGRAMMING MODEL OF 8085 MP



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# PROGRAMMING MODEL OF 8085 MP (CONT.)

## REGISTERS

- **Program Counter (PC)**

The function of the program counter is to point to the memory address from which the next byte is to be fetched.

- **Stack Pointer (SP)**

It points to a memory location in R/W memory, called the stack.

- **Accumulator**

# PROGRAMMING MODEL OF 8085 MP (CONT.)

## Flag Registers

Zero(Z)

Carry (CY)

Sign (S)

Parity (P)

Auxiliary Carry (AC)

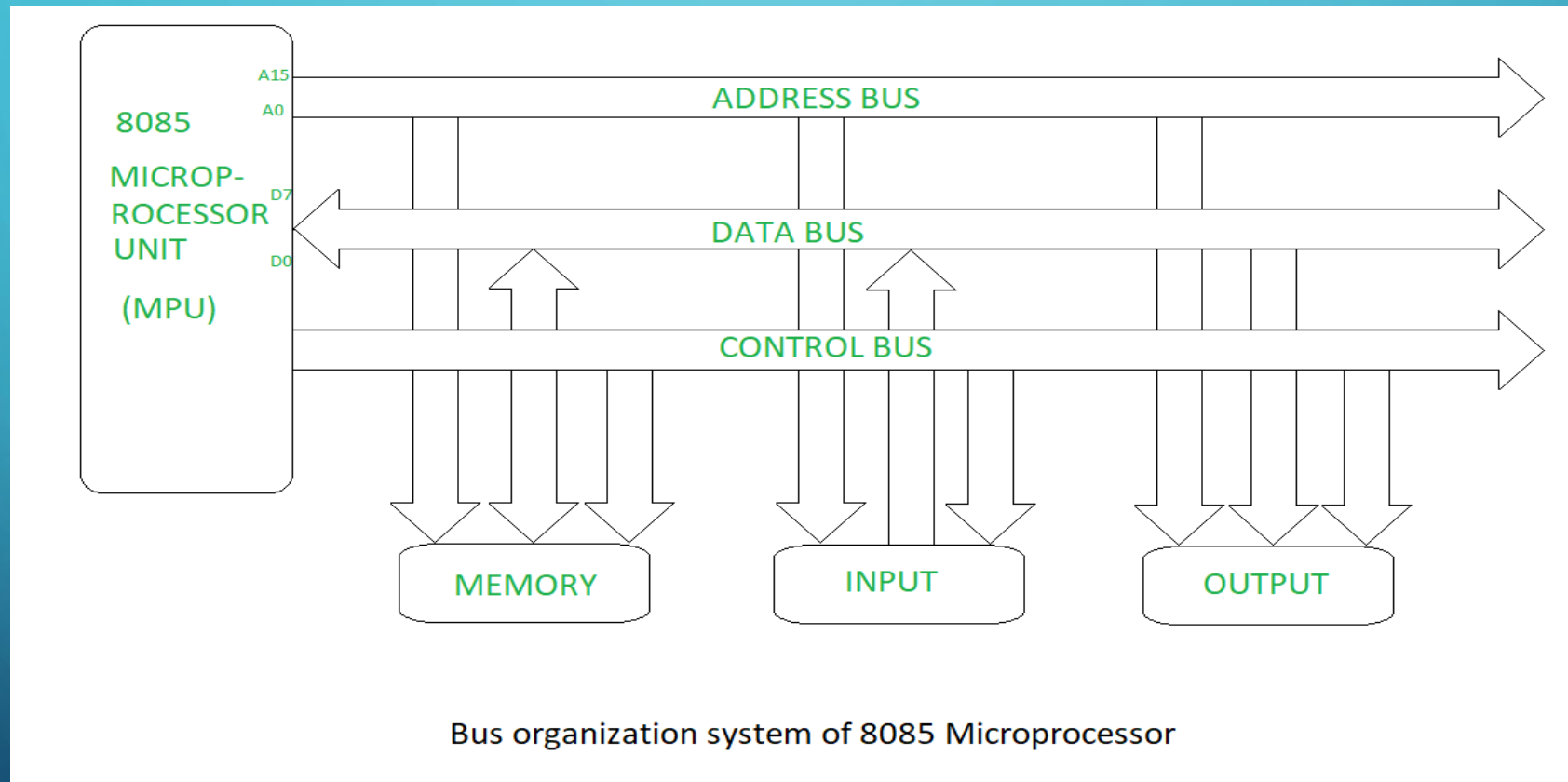
# 8085 MP PIN DIAGRAM (CONT.)

## Other Special Registers

- **Instruction Register / Decoder**
- **Memory Address Register (MAR)**
- **Control Generator**
- **Register Selector**

# 8085 MP PIN DIAGRAM (CONT.)

## The Bus System



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# 8085 MP PIN DIAGRAM (CONT.)

## The Bus System (Cont.)

### 1. Address Bus

The address bus is a group of 16 lines

The address bus is unidirectional

The 8085 with its 16 lines is capable of addressing 64 K memory locations.

### 2. Data Bus

The data bus is a group of eight lines used for dataflow

They are bidirectional

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# 8085 MP PIN DIAGRAM (CONT.)

## The Bus System (Cont.)

### 1. Control Bus

The control bus consists of various single lines that carry synchronization signals.

These signals are used to identify a device type which the processor intends to communicate.

The background is a dark blue gradient. In the corners, there are decorative white lines resembling a circuit board or network diagram, with small circles at the end of the lines.

# THANK YOU

**End of Lecture- 3**

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