

# MICROPROCESSOR

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

## LECTURE- 8

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# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**
- **ARITHMETIC INSTRUCTIONS**
- **BRANCHING INSTRUCTIONS**
- **LOGICAL INSTRUCTIONS**
- **CONTROL INSTRUCTIONS**

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# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

Copy from source to destination

MOV	Rd, Rs
	M, Rs
	Rd, M

MOV B, C or MOV B, M

Move immediate 8-bit

MVI	Rd, data
	M, data

MVI B, 57H or MVI M, 57H

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

## Load accumulator

LDA      16-bit address

LDA 2034H

## Load accumulator indirect

LDAX    B/D Reg. pair

LDAX B

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

## Load register pair immediate

**LXI**      Reg. pair, 16-bit data

LXI H, 2034H or LXI H, XYZ

## Load H and L registers direct

**LHLD**      16-bit address

LHLD 2040H

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

## Store accumulator direct

STA      16-bit address

STA 4350H

## Store accumulator indirect

STAX     Reg. pair

STAX B

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

Store H and L registers direct

**SHLD** 16-bit address

SHLD 2470H

Exchange H and L with D and E

**XCHG** none

XCHG

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

Copy H and L registers to the stack pointer

SPHL

SPHL	none
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Push register pair onto stack

PUSH	Reg. pair
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PUSH B or PUSH A



# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

Pop off stack to register pair

POP      Reg. pair

POP H or POP A

Output data from accumulator to a port with 8-bit address

OUT      8-bit port address

OUT F8H

# 8085 INSTRUCTION SET

- **DATA TRANSFER INSTRUCTIONS**

Input data to accumulator from a port with 8-bit address

IN      8-bit port address

IN 8CH

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

# THANK YOU

**End of Lecture- 8**

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