

TECNIA INSTITUTE OF ADVANCED STUDIES

Grade 'A' Institute

Department of Information, Communication & Technology

Master Of Computer Applications (MCA)

Scheme and Syllabus (w.e.f. Academic Session 2020-21 onwards)

Course Code: MCA- 122

Course Name: Microprocessors

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LEARNING OBJECTIVES:

In this course, the learners will be able to gain experience related to the following: -

1. Features of microprocessor systems and specifically with the basic 16-bit (8086) processor, its architecture, internal organization and their functions.
2. Processor instruction set.
3. Low-level Assembly language programming.
4. Interfacing external peripheral devices with the processors.
5. Advance processors including RISC based processors.

PRE-REQUISITES:

1. Basics of electronics, Transistors, Flip-Flops, Registers.
2. Digital System Fundamentals
3. Assembly language programming

COURSE OUTCOMES (COs):

After completion of this course, the learners will be able to:

CO#	Detailed Statement of the CO	BT Level	Mapping to PO #
CO1	Recall various features of microprocessor, memory and I/O devices.	BTL1	PO1, PO2
CO2	Illustrate 8086 microprocessor architecture and define its bus organization including control signals	BTL2	PO1, PO2, PO3, PO4
CO3	Apply the concepts of memory and I/O interfacing to 8086 processor.	BTL3	PO1, PO2, PO3, PO4, PO5
CO4	Explain and outline the features of advance microprocessors,	BTL4	PO1, PO2, PO3, PO4, PO5, PO6, PO10
CO5	Understand 8086 processor addressing modes, outline classification of different instructions and functions of each instruction and write programs in assembly language using 8086 instructions.	BTL6	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11