DETAILED SYLLABUS OF DIGITAL ELECTRONICSAND MICROPROCESSOR

LOGIC CIRCUITS AND DESIGN PRINCIPLES

INTRODUCTION

Definitions, Logic Circuits, Boolean Algebra, Number system, Grey code, ASCII code, Parity bit and study of other related terms.

LOGIC CIRCUITS AND GATES

Gates, Latch, Buffer, D flip-flop, T flip-flop, R-S, J-K F/F, Use of all Gates and Flip-Flops, SOP, POS, DE-MORGAN Theorems, K-Map, Multiplexer, Demultiplexor, Encoder, Decoder, Seven Segment Display , Counters, Flip-flops, Registers, Practicals, Projects.

LOGIC GATESAND SEMI CONDUCTOR MEMORIES

LOGIC FAMILIES

RTL, TTL, ECL, CMOS, DTL, I L and Digital IC's, Theoretical study in detail.

MEMORIES

RAM, ROM, EPROM, EEPROM, SRAM, DRAM, SIMM, DIMM, RIMM, EEPROM Programming, Concept of EDO and non-EDO, Primary and Secondary Memories.

MULTI-VIBRATORS

IC 555 Architecture and Working Principle, Using IC 555 as a Monostable and Astable Multivibrator, Multivibrator Using Gates, MICROPROCESSOR 8085, 8086, 80186, 80286, 386, 486 AND PENTIUM. Definition, Flags, Interrupts, DMA, Address and Data Buses, General Microprocessor.

MICRO- CONTROLLERS STUDY

What are Micro Controllers, their studies as compared to Microprocessor.

8031, 8051 and others study and importance.

MICROPROCESSOR ARCHITECTURE

ADVANCE MICROPROCESSORS

Architecture of 8086, 8088, 80286 and others, Packaging type, Motherboard Logic, working of Microprocessor.

ASSEMBLYLANGUAGE PROGRAMMING

Instruction set of 8085, study of 8085 and its instruction set, Assembly Language Programming, Pin out Details, Practical.

PROJECT

Digital level projects Multiplexer, Demultiplexer, Timer, Digital Clock etc.

CASE STUDY

Discussion on Field Level Problems, Group Discussion.