

hop spread spectrum, applications

TEXT BOOK:

1. **Digital communications**, Simon Haykin, John Wiley India Pvt. Ltd. 2008.

REFERENCE BOOKS:

1. **Digital and Analog communication systems**, Simon Haykin, John Wiley India Pvt. Ltd, 2008
2. **An introduction to Analog and Digital Communication**, K. Sam Shanmugam, John Wiley India Pvt. Ltd, 2008.
3. **Digital communications** - Bernard Sklar- Pearson education 2007

MICROPROCESSOR

Subject Code	: 10EC62	IA Marks	: 25
No. of Lecture Hrs/Week	: 04	Exam Hours	: 03
Total no. of Lecture Hrs.	: 52	Exam Marks	: 100

UNIT - 1

8086 PROCESSORS: Historical background, The microprocessor-based personal computer system, 8086 CPU Architecture, Machine language instructions, Instruction execution timing, The 8086

UNIT - 2

INSTRUCTION SET OF 8086: Assembler instruction format, data transfer and arithmetic, branch type, loop, NOP & HALT, flag manipulation, logical and shift and rotate instructions. Illustration of these instructions with example programs, Directives and operators

UNIT - 3

BYTE AND STRING MANIPULATION: String instructions, REP Prefix, Table translation, Number format conversions, Procedures, Macros, Programming using keyboard and video display

UNIT - 4

8086 INTERRUPTS: 8086 Interrupts and interrupt responses, Hardware interrupt applications, Software interrupt applications, Interrupt examples



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UNIT - 5

8086 INTERFACING: Interfacing microprocessor to keyboard (keyboard types, keyboard circuit connections and interfacing, software keyboard interfacing, keyboard interfacing with hardware), Interfacing to alphanumeric displays (interfacing LED displays to microcomputer), Interfacing a microcomputer to a stepper motor

UNIT - 6

8086 BASED MULTIPROCESSING SYSTEMS: Coprocessor configurations, The 8087 numeric data processor: data types, processor architecture, instruction set and examples

UNIT - 7

SYSTEM BUS STRUCTURE: Basic 8086 configurations: minimum mode, maximum mode, Bus Interface: peripheral component interconnect (PCI) bus, the parallel printer interface (LPT), the universal serial bus (USB)

UNIT - 8

80386, 80486 AND PENTIUM PROCESSORS: Introduction to the 80386 microprocessor, Special 80386 registers, Introduction to the 80486 microprocessor, Introduction to the Pentium microprocessor.

TEXT BOOKS:

1. **Microcomputer systems-The 8086 / 8088 Family** – Y.C. Liu and G. A. Gibson, 2E PHI -2003
2. **The Intel Microprocessor, Architecture, Programming and Interfacing**-Barry B. Brey, 6e, Pearson Education / PHI, 2003

REFERENCE BOOKS:

1. **Microprocessor and Interfacing- Programming & Hardware**, Douglas hall, 2nd, TMH, 2006.
2. **Advanced Microprocessors and Peripherals** - A.K. Ray and K.M. Bhurchandi, TMH, 2nd, 2006.
3. **8088 and 8086 Microprocessors - Programming, Interfacing, Software, Hardware & Applications** - Triebel and Avtar Singh, 4e, Pearson Education, 2003

MICROELECTRONICS CIRCUITS

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D.V.