RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Electronics & Communication Engineering V-Semester

EC501 MICROPROCESSOR AND ITS APPLICATIONS

UNIT I Salient features of advanced microprocessors. RISC & CISC processors. Review and evolution of advanced microprocessors:8086,8088, 80186/286/386/486/Pentium, introduction to 8086 processor: Register organization of 8086,Architecture,signal description of 8086,minimum mode 8086 systems and timings and maximum mode 8086 systems and timings

UNIT II Intel 8086 microprocessor programming: 8086 Instruction Set, Addressing modes, Assembly Language Programming with Intel 8086 microprocessor

UNIT III Introduction to the various interfacings chips like 8155, 8255, Interfacings key boards, LEDs , ADC, DAC and memory Interfacing.

UNIT IV General purposes programmable peripheral devices (8253), 8254 programmable interval timer, 8259A programmable interrupt controller & 8257 DMA controller, USART, serial I/O & data Communication .

UNIT V Introduction to microcontrollers (8051) and embedded systems: 8051 architecture, pin description , I/O configuration , interrupts, addressing modes, an overview of 8051 instruction set, embedded system, use of microcontrollers in embedded systems

Reference Books:
1. Advance microprocessor and peripheral –A.K. Ray and K. M. Bhurchandi, Tata Mcgraw Hill
2. Microprocessor and Interfacing – D.V.Hall, McGraw Hill.
3. The Intel microprocessor - Barry B. Brey, Pearson
4. The 8086 & 8088 Microprocessor- LIU and Gibson, Tata McGraw Hill
5. The 8051 microcontroller and embedded systems-M.A. Mazidi, Janice GillispieMazidi, Pearson Prentice Hall