

Approved by AICTE, New Delhi & Affiliated to JNTUK, Kakinada

Chebrolu(V&M), Guntur(Dt), A.P-522212

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| **BLOCK :**  | E BLOCK |
| **FLOOR :**  | SECOND FLOOR |
| **ROOM NO:**  | 203 |
| **ROOM SIZE (in Sq. mtrs):** | 66.6 |
| **LAB NAME:** | SIMULATION LAB |
| **FANS :**  | 6 |
| **TUBE LIGHTS :**  | 4 |
| **CHAIRS :**  | 47 |
| **STAFF TABLES :**  | 1 |
| **EXPERIMENT TABLES :**  | 0 |
| **CLOSED IRON RACKS :**  | 0 |
| **WOODEN CLOSED RACKS :** | 0 |
| **Others:** | WHEEL CHAIRS: 45, STAFF CHAIRS: 2, CAMERA: 1,UPS:1,DUSTBIN:1, WALLCLOCK:1, NOTICE BOARD:1, WINDOW CURTONS:1, VISSION MISSION BOARDS:1,  |

**EQUIPMENT DETAILS**

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| **S.NO** | **EQUIPMENT PARTICULARS** | **QUANTITY** | **VENDOR** |
|
| 1 | SYSTEMS(MONITOR,KEYBOARD,MOUSE,CPU)CONFIGURATION: SERVER: 4GB RAM, CLIENTS: 2GB RAM, AMD ATHLON II PROCESSOR, 320GB HDD, NVIDIA MOTHERBOARD | 45 | HP |
| 2 | UPS | 1 |  |
| 3 | MICRO PROCESSOR INTERFACING KITS WITH POWER SUPPLIES | 10 | PROFESSIONAL ADVANCED ELECTRONICS |
| 4 | MICRO CONTROLLER INTERFACING KITS WITH POWER SUPPLIES | 10 | PROFESSIONAL ADVANCED ELECTRONICS |
| 5 | 8255 STUDYCARD INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 6 | 8251/8253 STUDY CARD INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 7 | 8279 STUDY CARD INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 8 | 8259 STUDYCARD INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 9 | 8031 STUDYCARD INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 10 | TRAFFIC LIGHT INTERFACE MODULE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 11 | ADC-DAC INTERFACE MODULE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 10 | ELEVATOR INTERFACE | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 11 | DSP PROCESSOR KITS | 6 | SS LAB EQUIPMENTS |
| 12 | FPGA TRAINER KIT | 2 | PROFESSIONAL ADVANCED ELECTRONICS |
| 13 | STABILIZER(10KVA) | 1 | MONOTECH ENGINEERS |
| 14 | MICRO CONTROLLER KIT WITH INTERFACING MODULES | 1 | DELTA ELECTRO SYSTEMS PVT LTD |
| 15 | ADVANCED MICROCONTROLLER KIT | 1 | DELTA ELECTRO SYSTEMS PVT LTD |
| 16 | MENTOR GRAPHICS | SOFTWARE | COREEL TECHNOLOGIES |

**LAB SPECIFICATIONS**

**DIGITAL SYSTEM DESIGN AND DIGITAL IC APPLIATIONS LAB (SEM 1)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | REALIZATION OF LOGIC GATES | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 2 | DESIGN OF FULL ADDER USING 3 MODELLING SYSTEMS | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 3 | 3 TO 8 DECODER | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 4 | 8 TO 3 ENCODER (WITH AND WITHOUT PARITY) | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 5 | 8X1 MULTIPLEXER AND 2X1 DEMULTIPLEXER | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 6 | 4 BIT COMPARATOR | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 7 | D - FLIP FLOP | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 8 | DECADE COUNTER | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 9 | SHIFT REGISTERS | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |
| 10 | ALU DESIGN | PERSONAL COMPUTER, XILINX SOFTWARE | AVAILABLE |

**VLSI LAB (SEM – 1)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | DESING AND IMPLEMENTATION OF CMOS INVERTER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 2 | DESING AND IMPLEMENTATION OF UNIVERSAL GATES | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 3 | DESING AND IMPLEMENTATION OF FULL ADDER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 4 | DESING AND IMPLEMENTATION OF FULL SUBTRACTOR | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 5 | DESING AND IMPLEMENTATION OF RS - LATCH | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 6 | DESING AND IMPLEMENTATION OF D-LATCH | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 7 | DESING AND IMPLEMENTATION OF ASYNCHRONOUS COUNTER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 8 | DESING AND IMPLEMENTATION OF STATIC RAM CELL | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 9 | DESING AND IMPLEMENTATION OF DIFFERENTIAL AMPLIFIER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 10 | DESING AND IMPLEMENTATION OF RING OSCILLATOR | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |

**MICROPROCESSORS & MICROCONTROLLERS (SEM – 1 EEE)**



**VLSI LAB (SEM – 2)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | DESING AND IMPLEMENTATION OF UNIVERSAL GATES | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 2 | DESING AND IMPLEMENTATION OF CMOS INVERTER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 3 | DESING AND IMPLEMENTATION OF FULL ADDER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 4 | DESING AND IMPLEMENTATION OF FULL SUBTRACTOR | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 5 | DESING AND IMPLEMENTATION OF DECODER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 6 | DESING AND IMPLEMENTATION OF RS - LATCH | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 7 | DESING AND IMPLEMENTATION OF D-LATCH | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 8 | DESING AND IMPLEMENTATION OF ASYNCHRONOUS COUNTER | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 9 | DESING AND IMPLEMENTATION OF STATIC RAM CELL | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |
| 10 | DESING AND IMPLEMENTATION OF R-2R LADDER NETWORK | PERSONAL COMPUTER, MENTOR GRAPHICS SOFTWARE | AVAILABLE |

**MICROPROCESSORS & MICROCONTROLLERS LAB (SEM – 2 ECE)**



**MICROPROCESSORS & MICROCONTROLLERS LAB (SEM – 2 EEE)**

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| **S.NO** | **NAME OF THE EXPERIMENT** | **APPARATUS REQUIRED** | **AVAILABLE/NOT AVAILABLE** |
| 1 | Arithmetic operation – Multi byte addition and subtraction, multiplication and division – Signed and unsigned arithmetic operation, ASCII – Arithmetic operation | PERSONAL COMPUTER, TASM SOFTWARE | AVAILABLE |
| 2 | Logic operations – Shift and rotate – Converting packed BCD to unpacked BCD, BCD to ASCII conversion | PERSONAL COMPUTER, TASM SOFTWARE | AVAILABLE |
| 3 | By using string operation and Instruction prefix: Move block, Reverse string Sorting, Inserting, Deleting, Length of the string, String comparison | PERSONAL COMPUTER, TASM SOFTWARE | AVAILABLE |
| 4 | Interfacing 8255–PPI | 8086 TRAINER KIT, 8255 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 5 | Interfacing 8259 – Interrupt Controller | 8086 TRAINER KIT, 8259 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 6 | Interfacing 8279 – Keyboard Display | 8086 TRAINER KIT, 8279 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 7 | Reading and Writing on a parallel port using 8051 | 8051 TRAINER KIT, 8051 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 8 | Timer in different modes using 8051 | 8051 TRAINER KIT, 8051 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 9 | Serial communication implementation using 8051 | 8051 TRAINER KIT, 8051 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |
| 10 | Understanding three memory areas of 00 – FF Using 8051 external interrupts | 8051 TRAINER KIT, 8051 INTERFACING KIT, KEYBOARD, POWERSUPPLY | AVAILABLE |