**LECTURE PLAN**

**Subject code: ETEC-310**

**Sub: MICROPROCESSOR & MICROCONTROLLERS**

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|  | **TOPICS TO BE COVERED** | **Total No. of lecture** |
|  | **First Term** |  |
| 1 | Architecture of 8085 | 1 |
| 2 | Pin Diagram of 8085 | 1 |
| 3 | Addressing modes  | 1 |
| 4 | Instruction set and Assembly Language Programming | 3 |
| 5 | T states, Machine Cycle, Instruction cycle & timing diagram | 2 |
| 6 | Interrupts | 1 |
| 7 | Memory organization & interfacing | 1 |
| 8 | 8086 Architecture difference between 8085 & 8086 Architecture | 2 |
| 9 | Generation of physical address & Pin diagram of 8086 | 1 |
| 10 | Minimum mode & Maximum mode | 1 |
| 11 | Bus cycle | 1 |
| 12 | Memory organization & interfacing | 1 |
| 13 | Addressing modes | 1 |
| 14 | Assembler directions  | 1 |
| 15 | Instruction set of 8086 & Assembly Language Programming | 3 |
| 16 | Hardware & Software Interrupts | 1 |
|  | **Second Term** |  |
| 17 | Programming peripheral interface (PPI-8255) | **2** |
| 18 | Sample and hold circuit and multiplexer | 1 |
| 19 | Keyboard and display controller (8279) | 2 |
| 20 | Programmable Interval timers (8253 / 8254) | 2 |
| 21 | USART (8251) | 1 |
| 22 | PIC (8259) | 1 |
| 23 | DAC / ADC | 1 |
| 24 | LCD | 1 |
| 25 | Stepper motor | 1 |
| 26 | Interfacing of various supporting IC’s with 8086 / 8085  | 1 |
| 27 | Introduction to 8051 Micro-Controllers & Architecture | 1 |
| 28 | Memory organization & Interfacing | 1 |
| 29 | SFRs, Port operation & I/O interfacing  | 1 |
|  | **Third Term** | 1 |
| 30 | Interrupts | 1 |
| 31 | Programmer’s model of 8051 | 1 |
| 32 | Operand types & addressing | 1 |
| 33 | Instruction set | 2 |
| 34 | Timer & counter programing  | 2 |