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| **Sl. No** | **Syllabus** | **Curriculum** | **Deployment Strategy and**  **Tool** | **Cross-cutting issues**  **integrated** | **PO, PSO and CO** | **Attainment Verification** |
| 1. | MICROPROCESSORS AND MICROCONTROLLERS | * Students will learn that it has very wide applications in the field of instrumentation in systems like in the control panel of press printing machines, digital kiosks, credit card processing, security systems etc. It is also used in medical instruments like ECG (electronic cardiogram) etc making the device smart. * Students will learn that microcontrollers are light sensing & controlling devices. Temperature sensing and controlling devices. Fire detection & safety devices. Industrial instrumentation devices. Process control devices. * The microprocessor has a limitation on the size of data. Most microprocessors do not support floating point operations. The main disadvantage is it's overheating physically. It should not contact with the other external devices | 1. Chalk and   Talk method   1. PPT | * Business   Ethics   * Human   values | PO1:Engineering Knowledge  PO2:Problem Analysis  PO3:Design/Development Of Solutions  PO4:Conduct Investigations Of Complex Problems  PO5:Modern Tool Usage  PO7:Environment And Sustainability  PO9:INDIVIDUAL AND TEAM WORK  PO10:COMMUNICATION  PO12: Life-long  Learning. |  |
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|  |  | PSO1:Professional Skills  PSO2:Problem Solving Skill |
|  |  | PSO3: Successful |
|  |  | career and |
|  |  | entrepreneurship |
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|  |  | **CO1** Differentiate between microprocessors and microcontrollers  **CO2** Design and develop assembly language code to solve problems  **CO3** Gain the knowledge for interfacing various devices to x86 family and ARM processor  **CO4** Demonstrate design of interrupt routines for interfacing devices |
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