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| **Course – 56 Title: Computer Peripheral and Interfacing Sessional** |
| **Course No.: CCE - 322 Credit : 1.50 Contact Hours: 2 Total Marks: 100** |

**11.1 Rationale:**

A computer engineer needs to gain a practical knowledge of the various methods used to interconnect peripheral devices to computers

**11.2 Objectives:**

At the completion of the course, students should be able

* to explain and design different types of microcontroller and embedded systems
* to interface various sensors and analog to digital converter with microcontroller, different EDK

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| **11.3**  **Learning Outcomes** | **11.4**  **Course Content** | **11.5**  **Teaching  Learning Strategy** | **11.6 Assessment Strategy** |
| * Familiarize with the required devices | Introduction | Lecture, Demonstration, Exercise | Identification, Viva voce |
| * Design mini projects | Microcontrollers, 8086 Architecture and Instruction Set, PIC Microcontroller, C Programming for Microcontrollers, Peripherals & Interrupts, Analogue Interfacing, Programmable Logic and Rapid prototyping using FPGAs | Lecture, Demonstration, Exercise | Practical exam, Presentation, Viva voce |

**RECOMMENDED BOOKS AND PERIODICALS**

**Text Books**:

1. Microcontroller Programming – Julio Sanchez and Maria P. Canton
2. Designing Embedded Systems – Tim Wilmshurst
3. Computer Peripherals – B. Cook and N. White
4. Microprocessor and Peripherals: Hardware Software Interfacing and Applications – Brey