

**Course:** BTech**Semester:** 4**Prerequisite:** Basic understanding of computer system

Rationale: This course provides detail of computer system's functional components, their characteristics, performance and interactions including system bus, different types of memory and input/output organization and CPU. This course also covers the architectural issues such as instruction set program and data types. On top that, the students are also introduced to the increasingly important area of parallel organization. This course also serves as a basic to develop hardware related projects. And hence it is an important course for all students of computer engineering branch.

Teaching and Examination Scheme

Teaching Scheme					Examination Scheme					Total
Lecture Hrs/Week	Tutorial Hrs/Week	Lab Hrs/Week	Hrs/Week	Credit	Internal Marks			External Marks		
					T	CE	P	T	P	
0	0	2	0	1	-	-	20	-	30	50

SEE - Semester End Examination, **CIA** - Continuous Internal Assessment (It consists of Assignments/Seminars/Presentations/MCQ Tests, etc.)

Course Outcome**After Learning the Course the students shall be able to:**

After learning this course students will be able to:

1. Explain 808microprocessor architecture.
2. Design assembly language program for 808microprocessor.
3. Design Interfacing with various hardware with 808microprocessor.
4. Debug program written in assembly language.

**List of Practical**

1.	Addition of two 8 bit numbers using 8085 Addition of two 8 bit numbers using 8085
2.	Write a program to add two 16 bit numbers. Write a program to add two 16 bit numbers.
3.	Part A: write an 8085 assembly language to perform multiplication of two 8 bit nos. Part B: write an 8085 assembly language to perform division of two 8 bit nos. Part A: write an 8085 assembly language to perform multiplication of two 8 bit nos. Part B: write an 8085 assembly language to perform division of two 8 bit nos.
4.	Write a program to add blocks of 8-bit data stored in memory locations. Write a program to add blocks of 8-bit data stored in memory locations.
5.	Write an 8085 assembly language program to find the minimum from two 8-bit numbers Write an 8085 assembly language program to find the minimum from two 8-bit numbers
6.	Part A. Write an assembly language program to sort data in ascending order. Part B Write an assembly language program to sort data in descending order. Part A. Write an assembly language program to sort data in ascending order. Part B Write an assembly language program to sort data in descending order.
7.	Write an 8085 assembly language program to get the minimum from block of n 8-bit number Write an 8085 assembly language program to get the minimum from block of n 8-bit number
8.	Write a program to convert BCD to binary. Write a program to convert BCD to binary.
9.	Write a program to convert binary to BCD Write a program to convert binary to BCD
10.	Write an 8085 assembly language program to convert a given binary number into its equivalent ASCII number Write an 8085 assembly language program to convert a given binary number into its equivalent ASCII number
11.	Write an 8085 assembly language program to convert a given ASCII number into its equivalent binary number Write an 8085 assembly language program to convert a given ASCII number into its equivalent binary number

Miscellaneous**Exam Requirement**

It consists of Assignments/Seminars/Presentations/Quizzes/Surprise Tests (Summative/MCQ) etc.