Semester	**5**	
Course	**MAJOR**	
Paper Code	**C3CS230542T / C3CS230542P**	
Paper Title	**MICROPROCESSOR**	
No. of Credits	**4**	
Theory / Practical / Composite	**COMPOSITE**	
Minimum No. of preparatory hours per week a student has to devote	**5**	
Number of Modules	**ONE**	
Syllabus	Historical background; organization and architectural features of microprocessors and microcontrollers. The instruction set: instruction format, addressing modes; assembly language programming. Interfacing of memory devices; data transfer techniques and I/O ports; interfacing of keyboard and display devices; programmable interrupt and DMA controllers; Introduction to advanced microprocessors and microcontrollers and Embedded Systems Case Study – 8085, 80x86.	
Learning Outcomes	1. To understand basic architecture of 8, 16 and 32 bit microprocessors. 2. To introduce 8085/80x86 architecture and programming in assembly language. 3. To introduce basic concepts of interfacing memory and peripheral devices to a microprocessor. 4. To understand interfacing of 8-bit microprocessor with memory and peripheral chips involving system design. 5. To understand techniques for faster execution of instructions and improve speed of operation and performance of microprocessors. 6. To introduce various advanced processor architectures such as 80X86, Pentium and Multi-core Processors.	
Reading/Reference Lists	1. Barry B. Brey: The Intel Microprocessors: Architecture, Programming and Interfacing. Pearson Education, Sixth Edition, 2009. 2. Walter A Triebel, Avtar Singh; The 8088 and 8086 Microprocessors Programming, Interfacing, Software, Hardware, and Applications. PHI, Fourth Edition 2005. 3. Microprocessor Architecture, programming and application with the 8085 – Ramesh S. Gaonkar, 4th Edition, Penram International Publishing.	
Evaluation	Theory CIA: 12 Attendance: 3	Practical CA: 38 Attendance: 2

	Semester Exam: 45	
Paper Structure	Answer 3 out of 5 of 15 marks each	