



Sardar Patel Institute of Technology

Bhavan's Campus, Munshi Nagar, Andheri (West), Mumbai-400058-India
(Autonomous Institute Affiliated to University of Mumbai)

Course Code	Course Name	Teaching Scheme (Hrs/week)			Credits Assigned			
		L	T	P	L	T	P	Total
EXL501	Microcontrollers and Applications Laboratory	--	--	2	--	--	1	1
		Examination Scheme						
		ISE		ESE			Total	
				Practical	Oral			
40		10		10		60		

Pre-requisite Course Codes	EXC501 (Microcontrollers and Applications)	
After successful completion of the course, student will be able to		
Course Outcomes	CO1	Compose assembly language and C programs for 8051 microcontroller based system
	CO2	Interface various peripherals with 8051 microcontroller
	CO3	Prepare initialization procedure for internal peripherals of ARM7 TDMI-S (LPC2148)
	CO4	Develop device drivers for ARM7 using datasheet
	CO5	Practice professional design techniques for microcontroller based system design

Exp. No.	Experiment Details	Ref.	Marks
1	Interfacing of LED and Switch	1	5
2	Print characters on LCD	1	5
3	WAP for transferring block of data/ Arrange data in ascending order	1	5
4	Mixed language program form timer	1	5
5	Interfacing of Serial port	1	5
6	Initialization of ARM7 and blink LED using ARM 7 LPC2148	2	5
7	Transmit and receive data using UART in LPC2148	2	5
8	To transfer block of data from one location to another in ARM7	2,3	5
Total Marks			40

References:

- [1] M. A. Mazadi and J. C. Mazadi, "The 8051 Microcontroller and Embedded Systems", Pearson Education, Asia
- [2] ARM User Manual
- [3] www.arm.com