



LESSON PLAN

Name of the Subject: EMBEDDED SYSTEMS

Year & Sem: Iv/II

Dept: ECE – A&B

S. No	Date	Topic Planned	Classes Required	Cum classes	Remarks
		UNIT-I (Introduction)			
1	27-11-2017	Embedded System-Definition, History, Classification	1	1	
2	28-11-2017	application areas and purpose of embedded systems	1	2	
3	29-11-2017	The typical embedded system-Core of the embedded system	1	3	
4	30-11-2017	Memory	2	5	
5	4-12-2017	Sensors and Actuators	1	6	
6	6-12-2017	Communication Interface	2	8	
7	7-12-2017	Embedded firmware	1	9	
8	8-12-2017	PCB and passive components	2	11	
9	13-12-2017	Characteristics, Quality attributes of an Embedded systems	2	13	
10	14-12-2017	Application-specific and Domain-Specific examples of an embedded system	1	14	
		UNIT – II (Embedded Hardware Design)			
11	15-12-2017	Analog and digital electronic components	1	15	
12	18-12-2017	I/O types and examples	2	17	
13	20-12-2017	Serial communication devices	2	19	
14	22-12-2017	Parallel device ports	2	21	
15	27-12-2017	Wireless devices, Timer and counting devices	1	22	
16	28-12-2017	Watchdog timer, Real time clock	1	23	
		UNIT – III (Embedded Firmware Design)			
17	29-12-2017	Embedded Firmware design approaches, Embedded Firmware development languages	2	25	
18	03-1-2018	ISR concept, Interrupt sources	2	27	
19	05-1-2018	Interrupt servicing mechanism, Multiple interrupts	2	29	
20	09-1-2018	DMA, Device driver programming	2	31	
21	11-1-2018	Concepts of C versus Embedded C and Compiler versus Cross-compiler	1	32	
		UNIT – IV(Real Time Operating System)			
22	16-1-2018	Operating system basics, Types of operating systems	1	33	



23	17-1-2018	Tasks, Process	2	35	
24		Threads	1	36	
25	19-1-2018	Multiprocessing and Multitasking, Threads	1	37	
26	29-1-2018	Processes and Scheduling	1	38	
27	30-1-2018	Task Scheduling	2	40	
28	1-2-2018	Communication, Synchronization, Device Drivers, How to choose an RTOS.	1	41	
29	2-2-2018	Hardware Software Co-Design: Fundamental Issues in Hardware Software Co-Design	1	42	
30	5-2-2018	Computational models in embedded design	2	44	
31	7-2-2018	Hardware software Trade-offs, Integration of Hardware and Firmware, ICE	1	45	
		Revision Schedule(ES)			
I MID EXAMINATION					
		UNIT-V (Embedded System Development)			
32	8-2-2018	The integrated development environment	1	46	
33	9-2-2018	Types of files generated on cross-compilation	1	47	
34	12-2-2018	Deassembler / Decompiler, Simulators	2	49	
35	15-2-2018	Emulators and Debugging	2	51	
36	20-2-2018	Target hardware debugging, Boundary Scan	2	53	
37	22-2-2018	Embedded Software development process and tools	1	54	
		UNIT-VI (Embedded System Implementation And Testing)			
38	23-2-2018	The main software utility tool, CAD and the hardware	2	56	
39	26-2-2018	Translation tools-Pre-processors	2	58	
40	27-2-2018	Interpreters, Compilers and Linkers	2	60	
41	28-2-2018	Debugging tools, Quality assurance and testing of the design	1	61	
42	1-3-2018	Testing on host machine	2	63	
43	2-3-2018	Simulators	2	65	
44	3-3-2018	Laboratory Tools	2	67	
		ADD ON TOPICS:			
45	4-3-2018	Creating task	1		
46	5-3-2018	threads	1		
		Revision Schedule (ES)			
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II MID EXAMINATION					
END EXAMINATIONS					