

LESSON PLAN

Subject Code & Name: 13EC4044,
 EMBEDDED & REAL TIME OPERATING SYSTEMS (ELECTIVE - IV)
Branch : ECE - A
Class / Semester : IV B.TECH , II SEMESTER
Academic Year : 2016 - 2017

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective action upon review
1	26-12-2016	Introduction	I	CR & LCD		
2	27-12-2016	Embedded systems over view	I	CR & LCD		
3	28-12-2016	Design challenges, processor technology	I	CR & LCD		
4	29-12-2016	Design technology, Trade-offs	I	CR & LCD		
5	30-12-2016	Single purpose processors	I	CR & LCD		
6	02-01-2017	combinational logic(RT-level)	I	CR & LCD		
7	03-01-2017	sequential logic(RT-level)	I	CR & LCD		
8	04-01-2017	custom purpose processor design(RT -level)	I	CR & LCD		
9	05-01-2017	optimizing custom single purpose processors	I	CR & LCD		
10	06-01-2017	General Purpose Processors- Basic architecture	I	CR & LCD		
11	09-01-2017	operations, programmer's view, development environment	I	CR & LCD		
12	17-01-2017	Application specific Instruction – Set processors (ASIPs)	I	CR & LCD		
13	18-01-2017	Micro controllers and Digital signal processors	I	CR & LCD		
14	19-01-2017	Revision of I unit	I	CR		
15	20-01-2017	State machine & concurrent process models- introduction	II	CR & LCD		
16	23-01-2017	models Vs Languages	II	CR & LCD		
17	24-01-2017	finite state machines with data path model(FSMD)	II	CR & LCD		
18	25-01-2017	using state machines	II	CR & LCD		
19	27-01-2017	program state machine model(PSM)	II	CR & LCD		
20	30-01-2017	concurrent process model	II	CR & LCD		
21	31-01-2017	concurrent processes	II	CR & LCD		
22	01-02-2017	communication among processes	II	CR & LCD		
23	06-02-2017	synchronization among processes	II	CR & LCD		
24	07-02-2017	Implementation, data flow model	II	CR & LCD		
25	08-02-2017	real-time systems	II	CR & LCD		
26	09-02-2017	Revision of II unit	II	CR		
27	10-02-2017	Introduction to Communication Processes	III	CR		
28	13-02-2017	Need for communication interfaces	III	CR		
29	14-02-2017	RS232/UART	III	CR		
30	15-02-2017	RS422/RS485	III	CR		
31	16-02-2017	USB	III	CR		
32	17-02-2017	Infrared	III	CR		

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33	20-02-2017	IEEE1394 Firewire	III	CR		
34	21-02-2017	Ethernet	III	CR		
35	22-02-2017	IEEE 802.11	III	CR		
36	23-02-2017	Blue tooth	III	CR		
37	24-02-2017	Revision of III unit	III	CR		
38	27-02-2017	Introduction to EMBEDDED/ RTOS CONCEPTS-I	IV	CR & LCD		
39	28-02-2017	Architecture of the Kernel	IV	CR & LCD		
40	01-03-2017	Tasks and task scheduler	IV	CR & LCD		
41	02-03-2017	interrupt service routines	IV	CR & LCD		
42	03-03-2017	Semaphores	IV	CR & LCD		
43	06-03-2017	Mutex	IV	CR & LCD		
44	07-03-2017	Introduction to EMBEDDED/ RTOS CONCEPTS-II	IV	CR & LCD		
45	08-03-2017	Mailboxes	IV	CR & LCD		
46	14-03-2017	Message Queues	IV	CR & LCD		
47	15-03-2017	Event Registers	IV	CR & LCD		
48	16-03-2017	Pipes-Signals	IV	CR & LCD		
49	17-03-2017	Revision of IV unit	IV	CR		
50	20-03-2017	Introduction to EMBEDDED/ RTOS CONCEPTS-III	V	CR & LCD		
51	21-03-2017	Timers	V	CR & LCD		
52	22-03-2017	Memory Management	V	CR & LCD		
53	23-03-2017	Priority inversion problem embedded operating systems	V	CR & LCD		
54	24-03-2017	Priority inversion problem embedded operating systems	V	CR & LCD		
55	27-03-2017	Embedded Linux- Real-time operating systems	V	CR & LCD		
56	29-03-2017	Embedded Linux- Real-time operating systems	V	CR & LCD		
57	30-03-2017	RT Linux-Handheld operating systems	V	CR & LCD		
58	31-03-2017	RT Linux-Handheld operating systems	V	CR & LCD		
59	03-04-2017	Windows CE	V	CR & LCD		
60	04-04-2017	Revision of V unit	V	CR		

Faculty Name: L.Rambabu

CR: CLASS ROOM

OHP: OVERHEAD PROJECTOR

LCD

Text Books:

1. Embedded System Design-A Unified Hardware/Software Introduction- Frank Vahid, Tony D. Givargis, John Wiley & Sons, Inc.2002.
2. Embedded/Real Time Systems- KVKK prased, Dreamtech press-2005.
3. Introduction to Embedded Systems - Raj Kamal, TMS-2002.

Reference Books:

1. Embedded Microcomputer Systems-Jonathan W.Valvano, Books/Cole, Thomson Learning.
2. An Embedded Software Primer- David E.Simon, pearson Ed.2000

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