LESSON PLAN

Name of the Institute:	C. V. Raman Polytechnic
Department:	Computer Science & Engineering
Semester/Division/Branch:	6thSem/CSE
Subject Name with code:	Internet of Things(TH-2)
Total No. of Class (Required):	60
Faculty Name:	ManasRanjan Mishra

Class No.	*Brief description of the Topic/Chapter to be taught*	Remarks
1	**Introduction to Internet of Things**	
2	Characteristics of IoT,Applications of IoT	
3	IoT Categories,IoT Enablers and connectivity layers	
4	Baseline Technologies	
5	Sensor ,Actuator ,IoT components and implementation	
6	Challenges for IoT	
7	**IOT Networking**	
8	Terminologies	
9	Gateway Prefix allotment	
10	Impact of mobility on Addressing	
11	Multihoming,Deviation from regular Web	
12	IoT identification and Data protocols	
13	**Connectivity Technologies**	
14	Introduction	
15	IEEE 802.15.4	
16	ZigBee, 6LoWPAN	
17	RFID, HART and wireless HART	

18	NFC, Bluetooth, Z wave, ISA100.11.A	
19	**Wireless Sensor Networks**	
20	Introduction to WSN and Components of a sensor node	
21	Modes of Detection,Challenges in WSN, Sensor Web	
22	Cooperation and Behaviour of Nodes in WSN,Self Management of WSN, Social sensing WSN,Application of WSN	
23	Wireless Multimedia sensor network, Wireless NanosensorNetworks,Underwater acoustic sensor networks	
24	WSN Coverage,Stationary WSN, Mobile WSN	
25	**M2M Communication**	
26	M2M communication	
27	M2M Ecosystem	
28	M2M service Platform	
29	Interoperability	
30	Interoperability	
31	**Programming with Arduino**	
32	Features of Arduino	
33	Components of Arduino Board	
34	Arduino IDE	
35	Case Studies	
36	**Programming with Raspberry Pi**	
37	Architecture and Pin Configuration	
38	Case studies	
39	Implementation of IoT with Raspberry Pi	
40	Implementation of IoT with Raspberry Pi	
41	**Software defined Networking**	
42	Limitation of current network	
43	Origin of SDN,SDN Architecture	

44	Rule Placement, Open flow Protocol	
45	Controller placement	
46	Security in SDN,Integrating SDN in IoT	
47	**Smart Homes**	
48	Origin and example of Smart Home Technologies	
49	Smart Home Implementation	
50	Home Area Networks(HAN)	
51	Smart Home benefits and issues	
52	**Smart Cities**	
53	Characteristics of Smart Cities	
54	Smart city Frameworks, Challenges in Smart cities	
55	Data Fusion,Smart Parking	
56	Energy Management in Smart cities	
57	**Industrial IoT**	
58	IIoTrequirements,Design considerations	
59	Applications of IIoT,Benefits of IIoT	
60	Challenges of IIoT	

Signature of the Faculty

Signature of the H.O.D