

LESSON PLAN

Course and Branch:

M.Tech in Robotics and Artificial Intelligence (Computer Engg)

Course Title:

Fundamental of Internet of Things (IoT) Course Code: (MTRA-104)

	Lecture No.	Topics To Be Covered
1	L 1	Introduction to IoT,
	L 2	Sensing, Actuation, Basics of Networking,
	L 3	Communication Protocols , Sensor Networks,
2	L 4	Machine to Machine Communications.
	L 5	Understanding of the IoT ecosystem,
	L 6	Various layers in building an IoT application and interdependencies
3	L 7	Introduction to Arduino Programming,
	L 8	Integration of Sensors and Actuators with Arduino,
	L 9	Introduction to Python programming
4	L 10	Introduction to Raspberry Pi
	L 11	Implementation of IoT with Raspberry Pi.
	L 12	Build use cases using Raspberry Pi.
5	L 13	Revision of above content
	L 14	First Sessional Exam
	L 15	Introduction to SDN,
6	L 16	SDN for IoT
	L 17	Data Aggregation,
	L 18	Handling and Analytics of Cloud Computing,

7	L 19	Sensors,
	L 20	Fog Computing,
	L 21	Understanding of the various protocols being used in IoT
8	L 22	MQTT,
	L 23	AMQP,
	L 24	REST API.
9	L 25	Revision of above content
	L 26	Second Sessional Exam
	L 27	Understanding of the IoT platforms
10	L 28	PTC Thingworx and IoT frameworks like MS Azure,
	L 29	Understanding of the usage of these platforms to build applications
	L 30	Application of IoT in Smart Cities
11	L 31	Application of IoT in Smart Homes,
	L 32	Application of IoT in Connected Vehicles,
	L33	Application of IoT in Smart Grid,
12	L 34	Case Study: Agriculture,
	L 35	Healthcare.
	L 36	Activity Monitoring
13	L 37	Implementation of IoT with Raspberry Pi
	L 38	Introduction to Arduino Programming,
14	L 39	IoT in Python programming
	L 40	Implemetation of in python MQTT
	L 41	IoT architechture
	L 42	Layer wise protocol discussion
15	L 43	Sessional Test-III
	L 44	Revision
	L 45	Revision