



SARADHA GANGADHARAN COLLEGE

(Affiliated to Pondicherry University)
(Recognized by UGC under Section 2(f) of the UGC Act 1956 as PG Institution)
(Accredited by NACC)(ISO 9001:2015 Certified institution)
(Registered with SWAYAM Local Chapter)
Lake Road, Velrampet, Puducherry-4

DEPARTMENT OF COMPUTER SCIENCE

CERTIFICATE COURSE IN INTERNET OF THINGS (ADD-ON COURSE)

For the Session 2020-2021

COURSE OBJECTIVE

The Internet is evolving to connect people to physical things and also physical things to other physical things all in real time. It's becoming the Internet of Things (IoT). The course enables student to understand the basics of Internet of things and protocols. It introduces some of the application areas where Internet of Things can be applied. Students will learn about the middleware for Internet of Things to understand the concepts of Web of Things.

COURSE STRUCTURE

- Introduction to IoT
- Elements of an IoT ecosystem
- IoT Protocols
- IoT Architecture
- IoT Application

ELIGIBILITY FOR CERTIFICATE COURSE

- Students who have passed under graduate level in Computer Science.
- Students can take this Add-on course only during their graduation period.

WORKLOAD & DISTRIBUTION OF MARKS

- There will be one theory paper with 20 marks, out of which 20 marks will be based on theory and 30 marks for Internal Assessment.
- There shall be 3 lectures per subject per week.
- Internal Assessment will be based on their performance in Assignments and Attendance.
- The candidate enrolled will be eligible for a certificate only if they score minimum 40 marks including theory and internal.

COURSE FACILITATORS

Mr.K.Baskar

INSTRUCTIONS FOR PAPER SETTERS

Examiner will be required to take 20 Objective type Questions with Multiple Choice, each carrying 1 marks.

Paper Code	Name	Theory	Practical	Max.Marks
CCIOT-101	Internet of Things (IoT)	20	30	50

Date of Registration : 17 August 2020
Date of Commencement : 24 August 2020
Duration : 40 Hours
Venue : Google Meet

SYLLABUS

INTRODUCTION TO IOT

Course Objective:

The Internet is evolving to connect people to physical things and also physical things to other physical things all in real time. It's becoming the Internet of Things (IoT). The course enables student to understand the basics of Internet of things and protocols. It introduces some of the application areas where Internet of Things can be applied. Students will learn about the middleware for Internet of Things. To understand the concepts of Web of Things.

Course Contents:

(15 hrs)

Module I: IOT - What is the IoT and why is it important? Elements of an IoT ecosystem, Technology drivers, Business drivers, Trends and implications, Overview of Governance, Privacy and Security Issues. IOT PROTOCOLS - Protocol Standardization for IoT – Efforts – M2M and WSN Protocols –RFID Protocols – Issues with IoT Standardization Protocols – Zig bee– Network layer – APS layer – Security .

(15 hrs)

Module II: IOT ARCHITECTURE - IoT Open source architecture (OIC)- OIC Architecture & Design principles- IoT Devices and deployment models- IoTivity : An Open source IoT stack - Overview- IoTivity stack architecture- Resource model and Abstraction. WEB OF THINGS - Web of Things versus Internet of Things – Two Pillars of the Web – Architecture Standardization for WoT– Platform Middleware for WoT – Unified Multitier WoT Architecture – WoT Portals and Business Intelligence.

(10 hrs)

Module III:IOT APPLICATIONS - IoT applications for industry: Future Factory Concepts, Brownfield IoT, Smart Objects, Smart Applications. Study of existing IoT platforms /middleware, IoT- A, Hydra etc.

Add-on Course

S. No	Register Number	Student Name	Batch	February 2021														March 2021																										
				1	2	3	4	5	8	9	10	11	12	15	17	18	19	22	23	24	25	26	1	2	3	4	5	8	9	10	12	15	16	17	18	19	22	23	24	25	26	30	31	
1	19CS0601	AJITH K	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
2	19CS0602	AJITHA C	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
3	19CS0603	ARAVINDH S	CS(2019-22)	1	A	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
4	19CS0604	ARAVINDHAN A	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
5	19CS0605	ARJUN L	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
6	19CS0606	BALAJI K	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
7	19CS0607	BALARAMAN M	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	A	28	29	30	31	32	33	34	35	36	37	38	
8	19CS0608	D PRIYANE	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
9	19CS0609	DIVYA N	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
10	19CS0610	HARI PRASATH R	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
11	19CS0611	HARIHARAN R S	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
12	19CS0612	HEMACHANDIRAN A	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	A	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	A	36	37		
13	19CS0613	HEMALOSHINI E	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
14	19CS0614	KABILAN M	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
15	19CS0615	KARTHIK A	CS(2019-22)	1	2	3	4	5	6	7	8	A	9	10	11	12	13	A	15	16	17	18	19	20	21	22	23	24	25	26	27	A	28	29	A	30	31	32	33	34	35	36		
16	19CS0616	KOWSALYA P	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
17	19CS0617	KRISHNAKANTH M	CS(2019-22)	1	2	3	4	5	6	7	8	A	9	10	11	12	13	A	15	16	17	18	19	20	21	22	23	24	25	26	27	A	28	29	A	30	31	32	33	34	35	36		
18	19CS0618	LAKSHMIPRIYA C	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
19	19CS0619	MANONMANI M	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
20	19CS0620	MOHANPRASATH T	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
21	19CS0621	MOHANRAJ I	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
22	19CS0622	MONIKA D	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
23	19CS0623	MUGILAN P	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
24	19CS0624	NAGA SUNDARI R	CS(2019-22)	1	2	3	4	A	A	A	5	A	A	A	A	6	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
25	19CS0625	NANDHAKUMAR S	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
26	19CS0626	NAVIN V	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
27	19CS0627	NITHILAMARAN G	CS(2019-22)	1	A	2	3	A	A	4	A	5	A	A	A	6	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
28	19CS0628	NIVEDHA V	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
29	19CS0629	PADHMAPRIYA E	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
30	19CS0630	POOJA P	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39	
31	19CS0631	PRASANTH I	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38	
32	19CS0632	PRIYADHARSHAN S	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
33	19CS0633	RAGUL J	CS(2019-22)	1	2	3	4	5	6	7	8	A	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	A	28	29	A	30	31	32	33	34	35	36	
34	19CS0634	RAMANAN R	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	A	36	37	
35	19CS0635	SAMSON S	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39	
36	19CS0636	SANDHIYA A	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39	
37	19CS0637	SANGEETHA S	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39	
38	19CS0638	SANTHOSH G	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
39	19CS0639	SANTHOSHKUMAR P	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12																													

43	19CS0643	THAMU S	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35
44	19CS0644	THANAUJA K	CS(2019-22)	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	A	38
45	19CS0645	THIRUVAMUDHAN B	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	A	36	37
46	19CS0646	VIMAL P	CS(2019-22)	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35
47	19CS0647	VIMALRAJ V	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39
48	19CS0649	YUVAPRASATH C	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	30	31	32	33	34	35	36	37	38	39
49	19CS0650	YUVARAJ M	CS(2019-22)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

S. R. [Signature]

Coordinator

[Signature]

HoD

Add-on Course

S. No	Register Number	Student Name	Batch	August 2020					September 2020																				October 2020															
				24	25	26	27	28	1	2	3	4	7	8	9	10	11	14	15	16	17	18	21	22	23	24	25	28	29	30	1	5	6	7	8	9	12	13	14	15	16	19	20	
1	18CS0601	ABINAYA.L	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
2	18CS0603	AJAY MANJUNATH.C	CS(201	1	2	3	A	4	5	6	7	8	9	10	A	11	12	13	14	15	A	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	A	31	32	33	A	34	35	
3	18CS0604	AJITH.S	CS(201	1	A	2	3	4	5	6	A	7	8	9	10	A	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	A	26	27	28	29	30	31	32	33	34	35	
4	18CS0605	ANANDHARAMAN.E	CS(201	1	2	A	3	4	5	6	7	8	9	10	A	11	12	13	14	15	16	17	18	A	19	20	21	22	23	24	25	A	26	27	28	29	30	31	32	A	33	34	35	
5	18CS0606	ANANTH.P	CS(201	1	2	3	A	4	5	6	7	A	8	9	10	11	12	13	14	15	A	16	17	18	19	20	21	22	A	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
6	18CS0607	ARAVINDHAN.R	CS(201	1	2	3	4	A	5	6	A	7	8	9	10	A	12	13	14	15	16	17	18	A	19	20	21	22	23	24	25	26	27	A	28	29	30	31	32	33	34	35	36	
7	18CS0608	ARAVINTH KUMAR.R	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
8	18CS0609	BALAMURUGAN.B	CS(201	1	A	2	3	4	5	A	6	7	8	9	10	A	11	12	13	14	15	16	A	17	18	A	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
9	18CS0610	BHARATHIRAJA.V	CS(201	1	2	3	A	4	5	6	7	8	A	9	10	11	12	13	14	15	A	16	17	18	19	A	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
10	18CS0611	DEIVEGAN.S	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	A	14	15	16	17	18	A	19	20	21	A	22	23	24	25	26	A	27	28	29	30	31	32	33	34	35	
11	18CS0612	DIVAGAR.M	CS(201	1	A	2	3	4	5	A	6	7	8	9	10	A	11	12	13	14	15	16	A	17	18	A	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	
12	18CS0613	DIVYA.V	CS(201	1	2	A	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	A	18	19	20	21	22	23	24	25	A	26	27	28	29	A	30	31	32	33	34	A	35	
13	18CS0614	ELUMALAI.V	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	28	32	33	34	35	36	37	38	39	40	
14	18CS0615	HEMANATHAN.A	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	30	31	32	33	34	35	A	36	37	
15	18CS0616	IYSWARYA.B	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	28	32	33	34	35	36	37	38	39	40	
16	18CS0617	KALAIMATHI.G	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	31	32	33	A	34	35	36	37	38	
17	18CS0618	KARTHEKEYAN.M	CS(201	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	31	32	33	34	35	36	37	A	38	
18	18CS0619	KARTHIKEYAN.P	CS(201	1	2	3	4	5	6	7	8	9	10	11	A	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	A	28	30	31	32	33	34	35	36	37	38	
19	18CS0620	KARUNA.I	CS(201	1	2	3	4	5	6	7	8	9	10	A	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	31	32	33	34	35	36	37	38	39	
20	18CS0621	KIRUTHIGA.M	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	A	24	25	26	27	28	29	28	31	32	33	34	35	36	37	38	39	
21	18CS0622	MANJULA.A	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39	
22	18CS0623	MATHI.B	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	28	32	33	34	35	36	37	38	39	40	
23	18CS0624	MOHAMED THARVEES	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
24	18CS0625	MOSES.V	CS(201	1	2	3	4	5	6	7	8	A	9	10	11	12	13	14	15	16	17	18	19	A	20	21	22	23	24	25	26	27	28	28	29	30	31	32	33	34	35	36	37	
25	18CS0626	MUGESH.M	CS(201	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	31	32	33	34	35	36	37	A	38	
26	18CS0627	PRADICKSHA.G	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39	
27	18CS0628	PUSHPARAJ.P	CS(201	1	2	3	4	5	6	7	8	A	9	10	11	12	13	14	A	15	16	17	18	19	20	21	22	23	24	25	26	27	A	28	29	A	30	31	32	33	34	35	36	
28	18CS0629	RAGUL.R	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
29	18CS0630	RUTHRA VISHNU.S.M	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39	
30	18CS0631	SANKARANARAYANAN	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
31	18CS0632	SANTHOSH.P	CS(201	1	2	3	4	A	A	A	5	A	A	A	A	6	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	28	A	A	A	A	A	A	A	A	A	A
32	18CS0633	SARVESHWAR MADHA	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
33	18CS0634	SATHISH KUMAR.V	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39	
34	18CS0635	SEDHURAMAN.K	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
35	18CS0636	SHADRACH SAMSON B	CS(201	1	2	3	4	5	6	7	A	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	28	31	32	33	34	35	36	37	A	38	
36	18CS0637	SHAKEELA.P	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	28	32	33	34	35	36	37	38	39	40	
37	18CS0638	SHIWALKAR.S	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36	
38	18CS0639	SHRI SHIVAGUNAL.S	CS(201	1	2	A	A	3	4	A	5	A	6	A	A	A	7	A	8	A	9	A	A	A	A	A	A	A	A	A	A	A	A	28	A	A	A	A	A	A	A	A	A	A
39	18CS0640	SUDHARSHANAN.M	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26													

41	18CS0642	SWEDHA.N	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39
42	18CS0643	THAMIZH MOZHIYAN.P	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36
43	18CS0644	VASANTHA KUMAR.K	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	A	14	15	16	17	18	A	19	20	21	A	22	23	24	25	26	28	27	28	29	30	31	32	33	34	35
44	18CS0645	VIGNESH.A	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36
45	18CS0646	VIGNESH.K	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	A	14	15	16	17	18	A	19	20	21	A	22	23	24	25	26	28	27	28	29	30	31	32	33	34	35
46	18CS0647	VIKNEESH.V	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36
47	18CS0648	VISHWA @ SURVESVAR	CS(201	1	2	3	4	A	5	6	7	8	9	10	11	12	13	14	15	16	A	17	18	19	20	21	22	23	24	25	26	27	A	28	A	29	30	31	32	33	34	35	36
48	18CS0649	YOGESWARI.N	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	A	28	31	32	33	34	35	36	37	38	39
49	18CSL005	SARANYA.B	CS(201	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	28	32	33	34	35	36	37	38	39	40

S. R. Rajan

Coordinator

Shanith

HoD



SARADHA GANGADHARAN COLLEGE

(Affiliated to Pondicherry University)

(Recognized by UGC under Section 2(f) of the UGC Act 1956 as PG Institution)

ISO 9001:2015 Certified

CERTIFICATE OF COMPLETION

This is to certify that

SATHISH KUMAR.V

of

BSc Computer Science (2018-2021)

has completed the Certificate Course

INTERNET OF THINGS

Offered in the Academic Year 2020-2021

Coordinator

HoD



SARADHA GANGADHARAN COLLEGE

(Affiliated to Pondicherry University)

(Recognized by UGC under Section 2(f) of the UGC Act 1956 as PG Institution)

ISO 9001:2015 Certified

CERTIFICATE OF COMPLETION

This is to certify that

SANTHOSH G

of

BSc Computer Science (2019-2022)

has completed the Certificate Course

INTERNET OF THINGS

Offered in the Academic Year 2020-2021

Coordinator

HoD

