



# **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)  
Lake Road, Velrampet, Puducherry-4

## **DEPARTMENT OF INFORMATION TECHNOLOGY**

### **Certificate Course Report 2020 – 2021**

**Title of the Course:** Digital Communication

**Date of Commencement:** 17.08.2020

**Course Facilitators:** M. John Jacob and S. Nithiya

#### **Course Objectives:**

- To understand the building blocks of digital communication system.
- To prepare mathematical background for communication signal analysis.
- To understand and analyze the signal flow in a digital communication system.
- To analyze error performance of a digital communication system in presence of noise and other interferences.
- To understand concept of spread spectrum communication system.

#### **Course Structure:**

The course gives an overview of the designs of digital communication systems. The mathematical foundation of decomposing the systems into separately designed source codes and channel codes are discussed. The principles and some commonly used algorithms in each component, to convert continuous time waveforms into bits, and vice versa are introduced. A comprehensive introduction to the basics of information theory, a rather thorough treatment of Fourier transforms and the sampling theorem and an overview of the use of vector spaces in signal processing are given.

### **Course Delivery:**

The certificate course, Digital Communication started on 17<sup>th</sup> August, 2020. Assistant Professor M. John Jacob and Assistant Professor S. Nithiya facilitated the progress of the course and it was pursued by the B.Sc. IT students. The course duration was 40 hours and it was conducted at Conference hall. Nearly 77 students enrolled for this course and 74 students completed the course successfully. Their theoretical understanding and practical experience were systematically assessed after completing the syllabus. For assessing their theoretical understanding, 20 marks were allotted while 30 marks were allotted for assessing their practical experience. It was offered twice in a year.

### **Positive Outcome:**

- After successfully completing the course students will be able to
- Analyze the performance of a baseband and pass band digital communication system in terms of error rate and spectral efficiency.
- Perform the time and frequency domain analysis of the signals in a digital communication system.
- Select the blocks in a design of digital communication system.
- Analyze performance of spread spectrum communication system.

# **Syllabus**

## **Digital Communication**

### **UNIT I**

Pulse Digital Modulation: Elements of digital communication systems, advantages of digital communication systems, Elements of PCM: Sampling, Quantization & Coding, Quantization error, Companding in PCM systems. Differential PCM systems (DPCM). Time Division Multiplexing & Demultiplexing. Delta Modulation: Delta modulation, its draw backs, adaptive delta modulation, comparison of PCM and DM systems, Noise in PCM and DM systems. Illustrative Problems.

### **UNIT II**

Digital Modulation Techniques: Introduction, ASK modulator, Coherent and Non-Coherent ASK detector, FSK modulator, Spectrum of FSK, coherent reception, non-coherent detection of FSK. BPSK transmitter, Coherent reception of BPSK, DPSK, QPSK. Data Transmission: Base band signal receiver, probability of error, The optimum filter, Matched filter, probability of error using matched filter. Optimum filter using correlator. Probability of error of ASK, FSK, BPSK and QPSK. Illustrative Problems.

### **UNIT III**

Information Theory: Discrete messages, Concept of amount of information and its properties. Average information, Entropy and its properties. Information rate, Mutual information and its properties, Illustrative Problems. Source Coding: Introduction, Advantages, Hartley Shannon's theorem, bandwidth -S/N trade off, Shanon- Fano coding, Huffman coding, Illustrative Problems.

### **UNIT IV**

Linear Block Codes: Introduction, Matrix description of Linear Block codes, Error detection and error correction capabilities of linear block codes, Hamming codes. Cyclic Codes: Encoding, Syndrome Calculation, Decoding.

### **UNIT V**

Convolution Codes: Introduction, encoding of convolution codes, time domain approach, transform domain approach. Graphical approach: State, Tree and Trellis diagram. Decoding using Viterbi algorithm Illustrative Problems.

26	NITEESH S R	19IT0026	1	2	3	4	5	6	7	8	9	10
27	NITHYA M	19IT0027	1	2	3	4	5	6	7	8	9	10
28	NIVETHA T	19IT0028	1	2	3	4	5	6	7	8	9	10
29	RAMANAN C	19IT0029	1	2	3	4	5	6	7	8	9	10
30	RANJITHKUMAR M	19IT0030	1	A	2	A	A	A	A	3	A	4
31	SAMUEL M	19IT0031	1	2	3	4	5	6	7	8	9	10
32	SANJAY S	19IT0032	1	2	3	4	5	6	7	8	9	10
33	SANJITH R	19IT0033	1	2	3	4	5	6	7	8	9	10
34	SARATHAPRIYA B	19IT0034	1	2	3	4	5	6	7	8	9	10
35	SATHIYAVARADHAN M	19IT0035	1	2	3	4	5	6	7	8	9	10
36	SHALINI K	19IT0036	1	2	3	4	5	6	7	8	9	10
37	SHARMILA P	19IT0038	1	2	3	4	5	6	7	8	9	10
38	SIVANTHRAJ S V	19IT0039	1	2	3	4	5	6	7	8	9	10
39	TEJASWINI M K	19IT0040	1	2	3	4	5	6	7	8	9	10
40	VALARMATHI G	19IT0041	1	2	3	4	5	6	7	8	9	10
41	VALLARASAN N	19IT0042	1	A	2	A	A	A	A	3	A	4
42	VANDHANA S	19IT0043	1	2	3	4	5	6	7	8	9	10
43	VANNAMATHI C	19IT0044	1	2	3	4	5	6	7	8	9	10
44	VIJAY S	19IT0045	1	A	2	A	A	A	A	3	A	4
45	VINISHA K	19IT0046	1	2	3	4	5	6	7	8	9	10
46	VISHVESHVARAN L	19IT0047	1	2	3	4	5	A	6	7	8	9
47	YADHAVAN S	19IT0048	1	2	3	4	5	6	7	8	9	10

## Department of Information Technology

### Certificate Course – Digital Communication

Batch: 2019-2022

Attendance – September 2020

S. No.	Name	Register No.	01-Sep	02-Sep	03-Sep	04-Sep	07-Sep	08-Sep	09-Sep	10-Sep	11-Sep	14-Sep
1	AADITHYA V	19IT0001	11	12	13	14	15	16	17	18	19	20
2	AAKASH M	19IT0002	5	A	A	6	7	8	9	10	11	12
3	AARTHI R	19IT0003	11	12	13	14	15	16	17	18	19	20
4	ABIRAMI S	19IT0004	11	12	13	14	15	16	17	18	19	20
5	AGASH T	19IT0005	6	7	8	A	9	10	11	12	13	14
6	AJAI S	19IT0006	6	7	8	9	10	11	12	13	14	15
7	ANJALI MAHAPATRA S	19IT0007	6	7	8	14	15	16	17	18	19	20
8	ARAVINDHAN S	19IT0008	6	7	8	14	15	16	17	18	19	20
9	BALAJI V	19IT0009	6	7	8	14	15	16	17	18	19	20
10	DEVANATHAN A	19IT0010	6	7	8	14	15	16	17	18	19	20
11	DHANUSH S	19IT0011	6	7	8	6	7	8	9	10	11	12
12	DHARUNKUMAR B	19IT0012	6	7	8	A	9	10	11	12	13	14
13	DHINESHKUMAR R	19IT0013	6	7	8	A	9	10	11	12	13	14
14	GOWTHAM G	19IT0014	6	7	8	9	10	11	12	13	14	15
15	HEMANATH K	19IT0015	11	12	13	14	15	16	17	18	19	20
16	KAARUNYAA K	19IT0016	11	12	13	14	15	16	17	18	19	20
17	KARUNAKARAN J	19IT0017	11	12	13	14	15	16	17	18	19	20
18	KASTHURI A	19IT0018	11	12	13	14	15	16	17	18	19	20
19	KAVITHA K	19IT0019	6	7	8	9	10	11	12	13	14	15
20	KEERTHANA P	19IT0020	11	12	13	14	15	16	17	18	19	20
21	NANTHAKUMAR M	19IT0021	11	12	13	14	15	16	17	18	19	20
22	NARENDIRAN K	19IT0022	5	A	A	6	7	8	9	10	11	12
23	NASREEN BANU B	19IT0023	11	12	13	14	15	16	17	18	19	20
24	NAVEEN P	19IT0024	11	12	A	A	13	14	15	16	17	A
25	NAVEEN SAKTHI S	19IT0025	5	6	7	8	9	10	11	12	13	14

26	NITEESH S R	19IT0026	11	12	13	14	15	16	17	18	19	20
27	NITHYA M	19IT0027	11	12	13	14	15	16	17	18	19	20
28	NIVETHA T	19IT0028	11	12	13	14	15	16	17	18	19	20
29	RAMANAN C	19IT0029	11	12	A	A	13	14	15	16	17	A
30	RANJITHKUMAR M	19IT0030	5	6	7	8	9	10	11	12	13	14
31	SAMUEL M	19IT0031	11	12	13	14	15	16	17	18	19	20
32	SANJAY S	19IT0032	11	12	13	14	15	16	17	18	19	20
33	SANJITH R	19IT0033	11	12	13	14	15	16	17	18	19	20
34	SARATHAPRIYA B	19IT0034	11	12	13	14	15	16	17	18	19	20
35	SATHIYAVARADHAN M	19IT0035	11	12	13	14	15	16	17	18	19	20
36	SHALINI K	19IT0036	11	12	13	14	15	16	17	18	19	20
37	SHARMILA P	19IT0038	11	12	13	14	15	16	17	18	19	20
38	SIVANTHRAJ S V	19IT0039	11	12	A	A	13	14	15	16	17	A
39	TEJASWINI M K	19IT0040	11	12	13	14	15	16	17	18	19	20
40	VALARMATHI G	19IT0041	11	12	13	14	15	16	17	18	19	20
41	VALLARASAN N	19IT0042	5	6	7	8	9	10	11	12	13	14
42	VANDHANA S	19IT0043	11	12	13	14	15	16	17	18	19	20
43	VANNAMATHI C	19IT0044	11	12	13	14	15	16	17	18	19	20
44	VIJAY S	19IT0045	5	6	7	8	9	10	11	12	13	14
45	VINISHA K	19IT0046	11	12	13	A	A	14	15	16	17	18
46	VISHVESHVARAN L	19IT0047	10	A	A	11	12	13	14	15	16	17
47	YADHAVAN S	19IT0048	11	12	13	14	15	16	17	18	19	20

## Department of Information Technology

Certificate Course – Digital Communication

Batch: 2019-2022

Attendance – September 2020

S. No.	Name	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	31-Sep	32-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep	30-Sep	31-Sep	32-Sep
1	ABDITHAN N	21	22	23	24	25	26	27	28	29	30	31	32				
2	ABDUL W	13	14	15	A	A	A	16	17	18	19	20	21				
3	ABDUL F	21	22	23	24	25	26	27	28	29	30	31	32				
4	ABIFAHMI S	21	22	23	24	25	26	27	28	29	30	31	32				
5	ABULHADI T	15	16	17	18	19	20	21	22	A	A	23	24				
6	ADAM S	16	17	18	19	20	21	22	23	24	25	26	27				
7	ADHIL WAHABRIZAL S	21	22	23	24	25	26	27	28	29	30	31	32				
8	ADHANNURRIZAN S	21	22	23	24	25	26	27	28	29	30	31	32				
9	ADAM N	21	22	23	24	25	26	27	28	29	30	31	32				
10	ADHANNURRIZAN A	21	22	23	24	25	26	27	28	29	30	31	32				
11	ADHANNURRIZAN S	13	14	15	A	A	A	16	17	18	19	20	21				
12	ADHANNURRIZAN E	15	16	17	18	19	20	21	22	A	A	23	24				
13	ADHANNURRIZAN F	15	16	17	18	19	20	21	22	A	A	23	24				
14	ADHANNURRIZAN S	16	17	18	19	20	21	22	23	24	25	26	27				
15	ADHANNURRIZAN F	21	22	23	24	25	26	27	28	29	30	31	32				
16	ADHANNURRIZAN F	21	22	23	24	25	26	27	28	29	30	31	32				
17	ADHANNURRIZAN J	21	22	23	24	25	26	27	28	29	30	31	32				
18	ADHANNURRIZAN F	21	22	23	24	25	26	27	28	29	30	31	32				
19	ADHANNURRIZAN F	16	17	18	19	20	21	22	23	24	25	26	27				
20	ADHANNURRIZAN F	21	22	23	24	25	26	27	28	29	30	31	32				
21	ADHANNURRIZAN W	21	22	23	24	25	26	27	28	29	30	31	32				
22	ADHANNURRIZAN F	13	14	15	A	A	A	16	17	18	19	20	21				
23	ADHANNURRIZAN E	21	22	23	24	25	26	27	28	29	30	31	32				
24	ADHANNURRIZAN F	A	18	19	20	21	22	23	24	25	26	27	28				
25	ADHANNURRIZAN S	15	16	17	18	19	20	21	22	23	24	25	26				

26	NITEESH S R	21	22	23	24	25	26	27	28	29	30	31	32
27	NITHYA M	21	22	23	24	25	26	27	28	29	30	31	32
28	NIVETHA T	21	22	23	24	25	26	27	28	29	30	31	32
29	RAMANAN C	A	18	19	20	21	22	23	24	25	26	27	28
30	RANJITHKUMAR M	15	16	17	18	19	20	21	22	23	24	25	26
31	SAMUEL M	21	22	23	24	25	26	27	28	29	30	31	32
32	SANJAY S	21	22	23	24	25	26	27	28	29	30	31	32
33	SANJITH R	21	22	23	24	25	26	27	28	29	30	31	32
34	SARATHAPRIYA B	21	22	23	24	25	26	27	28	29	30	31	32
35	SATHIYAVARADHAN M	21	22	23	24	25	26	27	28	29	30	31	32
36	SHALINI K	21	22	23	24	25	26	27	28	29	30	31	32
37	SHARMILA P	21	22	23	24	25	26	27	28	29	30	31	32
38	SIVANTHRAJ S V	A	18	19	20	21	22	23	24	25	26	27	28
39	TEJASWINI M K	21	22	23	24	25	26	27	28	29	30	31	32
40	VALARMATHI G	21	22	23	24	25	26	27	28	29	30	31	32
41	VALLARASAN N	15	16	17	18	19	20	21	22	23	24	25	26
42	VANDHANA S	21	22	23	24	25	26	27	28	29	30	31	32
43	VANNAMATHI C	21	22	23	24	25	26	27	28	29	30	31	32
44	VUJAY S	15	16	17	18	19	20	21	22	23	24	25	26
45	VINISHA K	19	20	21	22	23	24	25	26	27	28	29	30
46	VISHVESHWARAN L	18	19	20	21	22	23	A	24	25	A	26	27
47	YADHAVAN S	21	22	23	24	25	26	27	28	29	30	31	32



## Department of Information Technology

Certificate Course – Digital Communication

Batch: 2019-2022

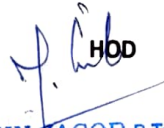
Attendance – October 2020

S. No.	Name	01-Oct	02-Oct	05-Oct	06-Oct	07-Oct	08-Oct	09-Oct	12-Oct
1	AADITHYA V	33	34	35	36	37	38	39	40
2	AAKASH M	22	23	24	25	26	27	28	29
3	AARTHI R	33	34	35	36	37	38	39	40
4	ABIRAMI S	33	34	35	36	37	38	39	40
5	AGASH T	25	26	27	28	29	30	31	32
6	AJAI S	28	29	30	31	32	33	34	35
7	ANJALI MAHAPATRA S	33	34	35	36	37	38	39	40
8	ARAVINDHAN S	33	34	35	36	37	38	39	40
9	BALAJI V	33	34	35	36	37	38	39	40
10	DEVANATHAN A	33	34	35	36	37	38	39	40
11	DHANUSH S	22	23	24	25	26	27	28	29
12	DHARUNKUMAR B	25	26	27	28	29	30	31	32
13	DHINESHKUMAR R	25	26	27	28	29	30	31	32
14	GOWTHAM G	28	29	30	31	32	33	34	35
15	HEMANATH K	33	34	35	36	37	38	39	40
16	KAARUNYAA K	33	34	35	36	37	38	39	40
17	KARUNAKARAN J	33	34	35	36	37	38	39	40
18	KASTHURI A	33	34	35	36	37	38	39	40
19	KAVITHA K	28	29	30	31	32	33	34	35
20	KEERTHANA P	33	34	35	36	37	38	39	40
21	NANTHAKUMAR M	33	34	35	36	37	38	39	40
22	NARENDIRAN K	22	23	24	25	26	27	28	29
23	NASREEN BANU B	33	34	35	36	37	38	39	40
24	NAVEEN P	29	30	31	32	33	34	35	36
25	NAVEEN SAKTHI S	27	28	29	30	31	32	33	34

26	NITEESH S R	33	34	35	36	37	38	39	40
27	NITHYA M	33	34	35	36	37	38	39	40
28	NIVETHA T	33	34	35	36	37	38	39	40
29	RAMANAN C	29	30	31	32	33	34	35	36
30	RANJITHKUMAR M	27	28	29	30	31	32	33	34
31	SAMUEL M	33	34	35	36	37	38	39	40
32	SANJAY S	33	34	35	36	37	38	39	40
33	SANJITH R	33	34	35	36	37	38	39	40
34	SARATHAPRIYA B	33	34	35	36	37	38	39	40
35	SATHIYAVARADHAN M	33	34	35	36	37	38	39	40
36	SHALINI K	33	34	35	36	37	38	39	40
37	SHARMILA P	33	34	35	36	37	38	39	40
38	SIVANTHRAJ S V	29	30	31	32	33	34	35	36
39	TEJASWINI M K	33	34	35	36	37	38	39	40
40	VALARMATHI G	33	34	35	36	37	38	39	40
41	VALLARASAN N	27	28	29	30	31	32	33	34
42	VANDHANA S	33	34	35	36	37	38	39	40
43	VANNAMATHI C	33	34	35	36	37	38	39	40
44	VIJAY S	27	28	29	30	31	32	33	34
45	VINISHA K	31	32	33	34	35	36	37	38
46	VISHVESHVARAN L	28	29	30	31	32	33	34	35
47	YADHAVAN S	33	34	35	36	37	38	39	40



Course Coordinator



M. JOHN JACOB, B.Tech., MCA., NET.,  
 Head. Dept. of Information Technology,  
 Saradha Gangadharan College,  
 Velrampet, Pondicherry - 605 004.

**Department of Information Technology**  
**Certificate Course – Digital Communication**  
**Batch: 2018-2021**  
**Attendance – April 2021**

S. No.	Name	Register No.	19-Apr	20-Apr	21-Apr	22-Apr	23-Apr	26-Apr	27-Apr	28-Apr	29-Apr	30-Apr
1	AJITH KUMAR P	18IT0001	1	2	3	4	A	5	6	7	8	9
2	ARUNESHWARAN S	18IT0002	1	2	3	4	5	6	7	8	9	10
3	ATHITHYEN P K	18IT0003	1	2	3	4	5	6	7	8	9	10
4	BUVANA K	18IT0004	1	2	3	4	5	6	7	8	9	10
5	CHANDRU A	18IT0005	1	2	3	4	5	6	7	A	8	9
6	CHARAN T	18IT0006	1	2	3	4	5	6	7	A	A	A
7	DATCHINAMOORTHIR	18IT0007	1	2	3	4	5	6	7	8	9	10
8	JAGANATHAN S	18IT0008	1	2	3	4	5	6	A	7	A	8
9	KUMARAN M	18IT0009	1	2	3	4	A	5	6	7	8	A
10	MADHIVANAN B	18IT0010	1	2	3	4	5	6	7	8	9	10
11	MANICHANDRAN S	18IT0011	1	2	3	4	5	6	7	A	8	9
12	MATHISH V	18IT0012	1	2	3	4	5	6	7	A	8	9
13	PRASANTH K	18IT0014	1	2	3	4	5	6	A	7	8	A
14	PUSHPAVALLY S	18IT0015	1	2	3	4	5	6	7	8	9	10
15	RAGURAMAN E	18IT0016	1	2	3	4	5	6	7	8	9	A
16	RAJPRASANTH S	18IT0017	1	2	3	4	5	6	7	A	8	9
17	SANJEEV KHANNA R	18IT0018	1	2	3	4	5	6	7	8	9	10
18	SANJEEVI A	18IT0019	1	2	3	4	5	6	7	8	9	10
19	SANTHOSH KUMAR N	18IT0020	1	2	3	4	5	6	7	8	9	10
20	SARGURUNATHAN M	18IT0021	1	2	3	4	5	6	7	A	A	8
21	SIVASANKARI S	18IT0023	1	2	3	4	5	6	7	8	9	10
22	SUNDEEP A	18IT0024	1	2	3	4	5	6	7	8	9	10
23	SUNIL KANNAN P	18IT0025	1	2	3	4	5	6	7	A	8	9
24	SURYA A	18IT0026	1	2	3	4	5	6	7	8	9	10
25	TAMILANBAN V	18IT0027	1	2	3	4	5	6	7	A	A	8

26	THAMIZH SELVAM K	18IT0028	1	2	3	4	5	6	7	8	9	10
27	VELANKANNI A	18IT0029	1	2	3	4	5	6	7	8	9	10
28	VISHNU KUMAR M	18IT0030	1	2	3	4	5	6	7	8	9	10
29	YUVANESH B	18IT0031	1	2	3	4	5	6	7	8	9	10
30	YUVARAJ M	18IT0032	1	2	3	4	5	6	7	8	9	10

## Department of Information Technology

### Certificate Course – Digital Communication

Batch: 2018-2021

#### Attendance – May 2021

S. No.	Name	Register No.	03-May	04-May	05-May	06-May	07-May	10-May	11-May	12-May	13-May	17-May
1	AJITH KUMAR P	18IT0001	10	11	12	13	14	15	16	A	17	18
2	ARUNESHWARAN S	18IT0002	11	12	13	14	15	16	17	18	19	20
3	ATHITHYEN P K	18IT0003	11	12	13	14	15	16	17	18	19	20
4	BUVANA K	18IT0004	11	12	13	14	15	16	17	18	19	20
5	CHANDRU A	18IT0005	10	A	A	A	11	12	13	A	14	15
6	CHARAN T	18IT0006	8	9	10	11	A	A	12	13	14	15
7	DATCHINAMOORTHIR	18IT0007	11	12	13	14	15	16	17	18	19	20
8	JAGANATHAN S	18IT0008	A	9	10	A	11	12	13	A	A	14
9	KUMARAN M	18IT0009	A	A	A	A	9	10	11	12	13	14
10	MADHIVANAN B	18IT0010	11	12	13	14	15	16	17	18	19	20
11	MANICHANDRAN S	18IT0011	10	11	12	13	A	14	15	16	17	A
12	MATHISH V	18IT0012	10	11	12	13	A	14	15	16	17	A
13	PRASANTH K	18IT0014	A	9	10	11	12	13	14	15	16	17
14	PUSHPAVALLY S	18IT0015	11	12	13	14	15	16	17	18	19	20
15	RAGURAMAN E	18IT0016	11	A	12	A	13	14	A	15	16	17
16	RAJPRASANTH S	18IT0017	10	11	12	13	A	14	15	16	17	A
17	SANJEEV KHANNA R	18IT0018	11	12	13	14	15	16	17	18	19	20
18	SANJEEVI A	18IT0019	11	12	13	14	15	16	17	18	19	20
19	SANTHOSH KUMAR N	18IT0020	11	12	13	14	15	16	17	18	19	20
20	SARGURUNATHAN M	18IT0021	9	10	11	A	A	12	13	14	A	15
21	SIVASANKARI S	18IT0023	11	12	13	14	15	16	17	18	19	20
22	SUNDEEP A	18IT0024	11	12	13	14	15	16	17	18	19	20
23	SUNIL KANNAN P	18IT0025	10	11	12	13	A	14	15	16	17	A
24	SURYA A	18IT0026	11	12	13	14	15	16	17	18	19	20
25	TAMILANBAN V	18IT0027	9	10	11	12	13	14	15	16	17	18

26	THAMIZH SELVAM K	18IT0028	11	12	13	A	14	15	A	A	16	17
27	VELANKANNI A	18IT0029	11	12	13	14	15	16	17	18	19	20
28	VISHNU KUMAR M	18IT0030	11	12	13	14	15	16	17	18	19	20
29	YUVANESH B	18IT0031	11	12	13	14	15	16	17	18	19	20
30	YUVARAJ M	18IT0032	11	12	13	14	15	16	17	18	19	20

**Department of Information Technology**  
**Certificate Course – Digital Communication**  
**Batch: 2018-2021**  
**Attendance – May 2021**

S. No.	Name	Register No.	18-May	19-May	20-May	21-May	27-May	28-May			
1	AJITH KUMAR P	18IT0001	19	20	21	22	23	24			
2	ARUNESHWARAN S	18IT0002	21	22	23	24	25	26			
3	ATHITHYEN P K	18IT0003	21	22	23	24	25	26			
4	BUVANA K	18IT0004	21	22	23	24	25	26			
5	CHANDRU A	18IT0005	16	17	18	19	20	21			
6	CHARAN T	18IT0006	A	A	16	17	18	19			
7	DATCHINAMOORTHIR	18IT0007	21	22	23	24	25	26			
8	JAGANATHAN S	18IT0008	15	16	17	18	19	20			
9	KUMARAN M	18IT0009	15	16	17	18	19	20			
10	MADHIVANAN B	18IT0010	21	22	23	24	25	26			
11	MANICHANDRAN S	18IT0011	18	19	A	20	21	22			
12	MATHISH V	18IT0012	18	19	A	20	21	22			
13	PRASANTH K	18IT0014	18	19	20	21	22	23			
14	PUSHPAVALLY S	18IT0015	21	22	23	24	25	26			
15	RAGURAMAN E	18IT0016	18	19	20	21	22	23			
16	RAJPRASANTH S	18IT0017	18	19	A	20	21	22			
17	SANJEEV KHANNA R	18IT0018	21	22	23	24	25	26			
18	SANJEEVI A	18IT0019	21	22	23	24	25	26			
19	SANTHOSH KUMAR N	18IT0020	21	22	23	24	25	26			
20	SARGURUNATHAN M	18IT0021	A	16	17	18	19	20			
21	SIVASANKARI S	18IT0023	21	22	23	24	25	26			
22	SUNDEEP A	18IT0024	21	22	23	24	25	26			
23	SUNIL KANNAN P	18IT0025	18	19	A	20	21	22			
24	SURYA A	18IT0026	21	22	23	24	25	26			
25	TAMILANBAN V	18IT0027	19	20	A	A	21	22			

26	THAMIZH SELVAM K	18IT0028	18	A	19	20	21	22				
27	VELANKANNI A	18IT0029	21	22	23	24	25	26				
28	VISHNU KUMAR M	18IT0030	A	A	A	A	A	21				
29	YUVANESH B	18IT0031	21	22	23	24	25	26				
30	YUVARAJ M	18IT0032	21	22	23	24	25	26				



**Department of Information Technology**  
**Certificate Course – Digital Communication**  
**Batch: 2018-2021**  
**Attendance – June 2021**

S. No.	Name	Register No.	01-Jun	02-Jun	03-Jun	04-Jun	07-Jun	08-Jun	09-Jun	10-Jun	11-Jun	14-Jun
1	AJITH KUMAR P	18IT0001	25	26	27	A	28	29	30	31	32	33
2	ARUNESHWARAN S	18IT0002	27	28	29	30	31	32	33	34	35	36
3	ATHITHYEN P K	18IT0003	27	28	29	30	31	32	33	34	35	36
4	BUVANA K	18IT0004	27	28	29	30	31	32	33	34	35	36
5	CHANDRU A	18IT0005	22	A	A	A	23	24	25	26	27	28
6	CHARAN T	18IT0006	20	21	22	23	24	25	26	27	28	29
7	DATCHINAMOORTHIR	18IT0007	27	28	29	30	31	32	33	34	35	36
8	JAGANATHAN S	18IT0008	21	22	23	24	25	26	27	28	29	30
9	KUMARAN M	18IT0009	21	22	23	24	25	26	27	28	29	30
10	MADHIVANAN B	18IT0010	27	28	29	30	31	32	33	34	35	36
11	MANICHANDRAN S	18IT0011	23	24	25	26	A	27	28	29	30	31
12	MATHISH V	18IT0012	23	24	25	26	A	27	28	29	30	31
13	PRASANTH K	18IT0014	24	25	26	27	28	29	30	31	32	33
14	PUSHPAVALLY S	18IT0015	27	28	29	30	31	32	33	34	35	36
15	RAGURAMAN E	18IT0016	24	25	26	27	28	29	30	31	32	33
16	RAJPRASANTH S	18IT0017	23	24	25	26	A	27	28	29	30	31
17	SANJEEV KHANNA R	18IT0018	27	28	29	30	31	32	33	34	35	36
18	SANJEEVI A	18IT0019	27	28	29	30	31	32	33	34	35	36
19	SANTHOSH KUMAR N	18IT0020	27	28	29	30	31	32	33	34	35	36
20	SARGURUNATHAN M	18IT0021	21	22	23	24	25	26	27	28	29	30
21	SIVASANKARI S	18IT0023	27	28	29	30	31	32	33	34	35	36
22	SUNDEEP A	18IT0024	27	28	29	30	31	32	33	34	35	36
23	SUNIL KANNAN P	18IT0025	23	24	25	26	A	27	28	29	30	31
24	SURYA A	18IT0026	27	28	29	30	31	32	33	34	35	36
25	TAMILANBAN V	18IT0027	A	A	23	24	25	26	27	28	29	30

26	TRAMIZH SELVAM A	1SIT0028	23	24	25	26	27	28	29	30	31	32
27	VELANKANNIA	1SIT0029	27	28	29	30	31	32	33	34	35	36
28	VISHNU KUMAR M	1SIT0030	22	23	24	25	26	27	28	29	30	31
29	YUVANESH B	1SIT0031	27	28	29	30	31	32	33	34	35	36
30	YUVARAJ M	1SIT0032	27	28	29	30	31	32	33	34	35	36

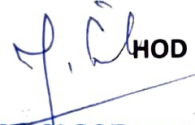
**Department of Information Technology**  
**Certificate Course – Digital Communication**  
**Batch: 2018-2021**  
**Attendance – June 2021**

S. No.	Name	Register No.	15-Jun	16-Jun	17-Jun	18-Jun						
1	AJITH KUMAR P	18IT0001	34	35	36	37						
2	ARUNESHWARAN S	18IT0002	37	38	39	40						
3	ATHITHYEN P K	18IT0003	37	38	39	40						
4	BUVANA K	18IT0004	37	38	39	40						
5	CHANDRU A	18IT0005	29	30	31	32						
6	CHARAN T	18IT0006	30	31	32	33						
7	DATCHINAMOORTHIR	18IT0007	37	38	39	40						
8	JAGANATHAN S	18IT0008	31	32	33	34						
9	KUMARAN M	18IT0009	31	32	A	33						
10	MADHIVANAN B	18IT0010	37	38	39	40						
11	MANICHANDRAN S	18IT0011	32	33	A	A						
12	MATHISH V	18IT0012	32	33	A	A						
13	PRASANTH K	18IT0014	34	35	36	37						
14	PUSHPAVALLY S	18IT0015	37	38	39	40						
15	RAGURAMAN E	18IT0016	34	35	36	37						
16	RAJPRASANTH S	18IT0017	32	33	A	A						
17	SANJEEV KHANNA R	18IT0018	37	38	39	40						
18	SANJEEVI A	18IT0019	37	38	39	40						
19	SANTHOSH KUMAR N	18IT0020	37	38	39	40						
20	SARGURUNATHAN M	18IT0021	31	32	33	34						
21	SIVASANKARI S	18IT0023	37	38	39	40						
22	SUNDEEP A	18IT0024	37	38	39	40						
23	SUNIL KANNAN P	18IT0025	32	33	A	A						
24	SURYA A	18IT0026	37	38	39	40						
25	TAMILANBAN V	18IT0027	31	32	33	34						

26	THAMIZH SELVAM K	18IT0028	33	34	35	36						
27	VELANKANNI A	18IT0029	37	38	39	40						
28	VISHNU KUMAR M	18IT0030	32	33	34	35						
29	YUVANESH B	18IT0031	37	38	39	40						
30	YUVARAJ M	18IT0032	37	38	39	40						



**Course Coordinator**



**M. JOHN JACOB, B.Tech., MCA., NET.,**  
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**Saradna Gangadharan College,**  
**Velampet, Pondicherry - 605 004.**



**SARADHA GANGADHARAN COLLEGE**  
(Recognized by UGC u/s 2(f) of the UGC Act, 1956, as a PG Institution)  
(Accredited by NAAC) (Affiliated to Pondicherry University)  
(An ISO 9001 - 2015 Certified Institution)  
Lake Road, Velrampet, Puducherry-4.

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**CERTIFICATE OF COMPLETION**

This is to certify that

A. DEVANATHAN

of

III B.Sc. IT

has completed the Certificate Course

**Digital Communication**

Offered in the Academic Year 2020-21

  
Co-ordinator

S. Nithiya

  
Head of the Department

Head, Dept. of Information Technology,  
Saradha Gangadharan College,  
Velrampet, Pondicherry - 605 004.



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of

*III B.Sc.IT*

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**Digital Communication**

Offered in the Academic Year 2020-21

*[Signature]*  
**Co-ordinator**

S. Nithiya

*[Signature]*  
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**Head of the Department**  
M. John Jacob