



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

Details of Content beyond syllabus Activities-2022-23 Even Semester

4th semester

IV/A	Maths for Communication Engineers 21EC41	Poster Presentation	9,10,12	Mrs. Lakshmi
IV/B	Maths for Communication Engineers 21EC41	Poster Presentation	9,10,12	Dr. Venkataramana
IV/A	Digital Signal Processing 21EC42	Mini Project	1,2,3,5,9,10, 11,12	Mrs. Bhanumathi A
IV/B	Digital Signal Processing 21EC42	Mini Project	1,2,3,5,9,10, 11,12	Mrs. Kavya B M
IV/A	Circuits & Controls 21EC43	Mini Project	1,2,3,5,7,9,10, 11,12	Dr. Sudha P N
IV/B	Circuits & Controls 21EC43	Mini Project	1,2,3,5,7,9,10, 11,12	Mr. Christo Jain
IV/A	Communication Theory 21EC44	Poster Presentation	5,9,10	Mr. Satish Kumar B
IV/B	Communication Theory 21EC44	Poster Presentation	5,9,10	Mrs. Anita P
IV/A&B	Biology For Engineers 21BE45	Poster Presentation	4,5	Mrs. Shobha G

6th semester:

VI/A&B	Digital Communication 18EC61	Presentation	9 10 12	Dr. Rekha N
VI/A	Embedded Systems 18EC62	Mini Project	6 7	Dr. Sudarshan B
VI/B	Embedded Systems 18EC62	Mini Project	6 7	Mr. Praveen A
VI/A&B	Microwave and Antennas 18EC63	Literature survey paper	9 10 12	Dr. Chanda V Reddy Dr. Dinesh Kumar D S
VI/A & B	Python Application Programming 18EC646	Poster Presentation	9 10 12	Dr. Surekha B
VI/ A&B	Introduction to Data Structures and Algorithms 18CS652	Quiz	1,2,12	Dr. Vijaya Lakshmi M
VI/ A&B	Supply Chain Management 18ME653	Presentation of case study	4 8 9 10 12	Mrs . Bhargavi Ananth

8th Semester

Semester/ Section	Course Name	Content beyond syllabus activity conducted	POs Covered	Faculty
VIII A &B	Wireless and Cellular Communication 18EC81	Poster Presentation	5 9 10 11 12	Dr. P N Sudha Mrs. Sangeetha V
VIII A &B	Radar Engineering 18EC823	Poster Presentation	9 10 12	Mr. Saleem S Tevaramani Mrs. Pooja S

4th semester

IV/A	Maths for Communication Engineers 21EC41	Poster Presentation	9,10,12	Mrs. Lakshmi
IV/B	Maths for Communication Engineers 21EC41	Poster Presentation	9,10,12	Dr. Venkataramana
IV/A	Digital Signal Processing 21EC42	Mini Project	1,2,3,5,9,10, 11,12	Mrs. Bhanumathi A
IV/B	Digital Signal Processing 21EC42	Mini Project	1,2,3,5,9,10, 11,12	Mrs. Kavya B M
IV/A	Circuits & Controls 21EC43	Mini Project	1,2,3,5,7,9,10, 11,12	Dr. Sudha P N
IV/B	Circuits & Controls 21EC43	Mini Project	1,2,3,5,7,9,10, 11,12	Mr. Christo Jain
IV/A	Communication Theory 21EC44	Poster Presentation	5,9,10	Mr. Satish Kumar B
IV/B	Communication Theory 21EC44	Poster Presentation	5,9,10	Mrs. Anita P
IV/A&B	Biology For Engineers 21BE45	Poster Presentation	4,5	Mrs. Shobha G



K. S. INSTITUTE OF TECHNOLOGY, BENGALURU - 560109

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES
2022-2023

Branch : Department of Electronics & Communication Engineering
Course Name : Biology for Engineers Course Code : 21BE45
Semester/Section : IV-A

Content Beyond Syllabus

ASSIGNMENT TYPE : POWER POINT PRESENTATION

Marks : 20

Objective : Title of the topic to be Presented Power point presentation
POs Covered : 4, 5

Sl. No	Batch No	USN	Name	Assignment topic
1	1	1KS21EC003	ABHISHEK H C	Engineering Biology Machine
2		1KS21EC014	ASHWIN S R	
3		1KS21EC009	ANIRUDHA R BHAT	
4		1KS21EC031	GURUSHANKARA M	
5	2	1KS21EC005	AISHWARYA A	Biological and Artificial Neuron
6		1KS21EC018	BHAVYA K	
7		1KS21EC019	BHUVANA H	
8		1KS21EC050	MUTTHULURU SAI HIMAJA	
9	3	1KS21EC001	AADHYA B N	Solar Cells
10		1KS21EC011	ARCHANA M	
11		1KS21EC024	DAGGUPATI CHARITHA	
12		1KS21EC027	DEEPIKA D	
13	4	1KS21EC023	CHIRANTH V V	Human Eye
14		1KS21EC033	HEMANTH D R	
15		1KS21EC051	NANDAN K	
16		1KS21EC053	NARAHARI N JOSHI	
17		1KS21EC054	NAVEEN S	
18	5	1KS21EC045	MANOJ T V	Electronic Nose
19		1KS21EC066	PRATHAM R SHANBHAG	

20		1KS21EC067	PRAYAG SINGH S	
21		1KS21EC068	PREETHAM M	
22	6	1KS21EC002	ABHIJITH R	Human Brain
23		1KS21EC021	CHINTAN D S	
24		1KS21EC048	MITHUN C	
25	7	1KS21EC016	B P SAMARTH	Respiratory System
26		1KS21EC042	LOHIT S HOOLAGERI	
27		1KS21EC043	LOHITH B	
28		1KS21EC062	PRAJWAL D	
29	8	1KS21EC006	AKSHAY C	Photosynthesis
30		1KS21EC035	KAMBHAMPATI VIVEK	
31		1KS21EC039	KUSHAL GOWDA U	
32		1KS21EC044	LOHITH S	
33		1KS21EC064	PRAJWAL H S	
34	9	1KS21EC047	MISBA M	Automated Peritoneal Dialysis
35		1KS21EC049	MONISHA D	
36		1KS21EC055	NAYANA J	
37		1KS21EC056	NAYANA S	
38		1KS21EC061	POOJA R	
39	10	1KS21EC004	ABHISHEK T S	Bionic Leaf
40		1KS21EC007	AKSHAY M S	
41		1KS21EC017	B S BHARGAV	
42		1KS21EC063	PRAJWAL G V	
43	11	1KS21EC020	BINDUSHREE S	Electrical tongue
44		1KS21EC038	KOMALA N	
45		1KS21EC041	LIKITHA L	
46	12	1KS21EC015	B N JEEVAN	Human Brain as CPU
47		1KS21EC026	DEEKSHA H K	
48		1KS21EC028	GAGAN V	
49		1KS21EC029	GAGANA SINDHU N	
50		1KS21EC065	PRAJWAL R	
51	13	1KS21EC008	ANAGHA PRAKASH	Bioprinting and 3D Printing
52		1KS21EC037	KEERTHANA S	

53		1KS21EC046	MEGHANA N	
54	14	1KS21EC060	POLURU MANJUNATH	Biological and Artificial Neuron
55		1KS21EC025	DAMINI S	
56		1KS21EC036	KARAN S	
57		1KS21EC058	OMKAR N BHUJARKAR	
58		1KS21EC010	ARCHANA G M	
59	15	1KS21EC013	ASHCHARYA N B	Human Brain
60		1KS21EC032	HARINI L	
61		1KS21EC040	KUSUMA M S	
62	16	1KS21EC059	PAVAN M PAI	Human Eye



Signature of Course In charge



Signature of HOD ECE



K. S. INSTITUTE OF TECHNOLOGY, BENGALURU - 560109

DEPARTMENT OF APPLIED SCIENCE AND HUMANITIES
2022-2023

Branch : Department of Electronics & Communication Engineering
Course Name : Biology for Engineers Course Code : 21BE45
Semester/Section : IV-B

Content Beyond Syllabus

ASSIGNMENT TYPE : POSTER PRESENTATION

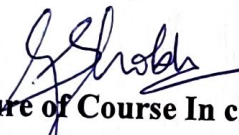
Marks : 20


Objective : Title of the topic to be Presented E-Poster presentation
POs Covered : 4, 5

Sl. No	Batch No	USN	Name	Assignment topic
1	1	1KS21EC070	PUNITH M	Glucometer
2		1KS21EC086	SANJAY N	
3		1KS21EC090	SHASHANK C U	
4		1KS21EC093	SINDHU M NIMBAL	
5	2	1KS21EC089	SHAIK ARFATH	Bionic Arm
6		1KS21EC075	REHAMAN SHARIFF	
7		1KS21EC078	S HARI DHANUSH	
8	3	1KS21EC076	RITESH KUMAR SINHA	Electronic Nose
9		1KS21EC0106	THARUN K V	
10		1KS21EC0107	THEJAS H V	
11		1KS21EC0118	VIJAY YADAV R	
12	4	1KS21EC069	PREKSHA S	Brain as CPU
13		1KS21EC084	SANJANA V	
14		1KS21EC0112	VARSHA S DAVASKAR	
15		1KS21EC0115	VIDYA I	
16	5	1KS21EC092	SHWETHA V	Parkinsons Disease
17		1KS21EC098	SUMUKH P	
18		1KS21EC0108	THUSHAR CHERIAN	
19		1KS21EC0113	VARSHITH S	
20	6	1KS21EC082	SAI RAHUL N	Human Respiratory system

21		1KS21EC071	RAGHAVENDRA NARAYAN PUJAR	
22		1KS21EC0109	UDAYA KUMAR S R	
23	7	1KS22EC0402	B SREEPADREDDI H BULLANGOUDAR	Electroencephalogram
24		1KS22EC0408	SANGEETHA H M	
25		1KS22EC0412	VAISHANAVI V	
26	8	1KS21EC073	RAKSHITHA M R	3D Printing Technology
27		1KS21EC074	RAYADURG JOISH SHRIYA	
28		1KS21EC100	SUNEHA S	
29		1KS21EC102	SURABHI K R	
30	9	1KS21EC072	RAKSHITH S	Human eye as compare to camera
31		1KS21EC085	SANJAY G	
32		1KS21EC101	SUPREETH A	
33		1KS21EC103	SUSHEN KRISHNAPUR	
34	10	1KS21EC080	S SHAJITH ALI	Ventilators
35		1KS21EC120	VYSHAK G R	
36		1KS21EC0121	YASHWANTH.M	
37		1KS22EC404	GONUGUNTLA SHRUJANA	
38	11	1KS21EC081	SAGAR S	Pacemaker
39		1KS21EC087	SANJAY P	
40		1KS22EC407	PRAJWAL PATIL B S	
41	12	1KS22EC400	ADITHYA D	Heart Lung Machine
42		1KS22EC401	APOORVA B	
43		1KS22EC406	PAVANGOWDA H P	
44		1KS22EC411	SUDEEP P	
45	13	1KS21EC095	SPOORTHY M U	Echolocation and Sonar
46		1KS21EC096	SRILAKSHMI G	
47		1KS21EC110	VAISHNAVI B A	
48		1KS21EC116	VIDYA RAWAL D	
49	14	1KS21EC088	SATHYAM KUMAR MANDAL S	Bionic leaf
50		1KS21EC091	SHREYAS	

			RAGHAVENDRA V	
51		1KS21EC114	VEERESH K N	
52	15	1KS22EC403	CHAITRA N	Cancer Disease
53		1KS22EC405	HEMA K	
54		1KS22EC409	SOUNDARYA S	
55		1KS22EC410	SOWMYA A M	
56		16	1KS21EC077	
57	1KS21EC097		SRIPRIYA H G	
58	1KS21EC099		SUNEETHA	
59	1KS21EC117		VIDYASHREE R	
60	17	1KS21EC083	SAMHITHA PRAKASH	The Heart
61		1KS21EC104	TARUN M	
62		1KS21EC105	TEJASHREE N	
63		1KS21EC111	VARSHA JAYAKUMAR	


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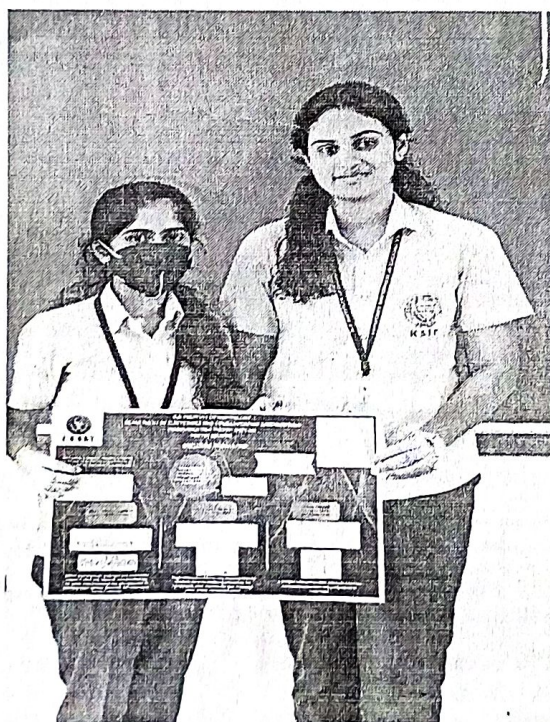
K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
 Content beyond syllabus- Poster Presentation

Academic Year	2022-2023		
Batch	2021-2025		
Year/Semester/section	II/IV/ B		
Subject Code-Title	21EC44- Basic signal processing		
Name of the Instructor	Mrs. ANITA.P	Dept.	ECE

POs covered: 5, 9, 10

No	TEAMS	USN	NAME	Topics
1.	TEAM 1	1KS21EC073	RAKSHITHA MR	QUANTAIZTION
		1KS21EC074	RAYADURG JOISH SHRIYA	
		1KS21EC100	SUNEHA S	
		1KS21EC102	SURABHI	
2	TEAM 2	1KS21EC077	RITHIKA M	TIME DIVISION MULTIPLEXING
		1KS21EC097	SRIPRIYA HG	
		1KS21EC099	SUNEETHA	
		1KS21EC0117	VIDYA SHREE R	
3	TEAM 3	1KS21EC069	PREKSHA S	PULSE AMPLITUDE MODULATION
		1KS21EC084	SANJANA V	
		1KS21EC112	VARSHA S	
		1KS21EC115	VIDYA I	
4	TEAM 4	1KS21EC076	RITESH KR SINHA	SAMPLING PROCESS
		1KS21EC106	THARUN KV	
		1KS21EC107	THEJAS HV	
		1KS21EC118	VIJAY YADAV R	
5	TEAM 5	1KS21EC092	SHWETHA V	PRE-EMPHASIS AND DE-EMPHASIS
		1KS21EC098	SUMUKH P	
		1KS21PEC108	THUSHAR CHERIAN	
		1KS21PEC113	VARSHITH S	
6	TEAM 6	1KS22EC400	ADITHYA D	DELTA MODULATION
		1KS22EC401	APOORVA B	
		1KS22EC406	PAVAN GOWDA H P	
		1KS22EC411	SUDEEP P	
7	TEAM 7	1KS22EC403	CHAITRA N	RING MODULATOR
		1KS22EC405	HEMA K	
		1KS22EC409	SOUNDARYA .S	
		1KS22EC410	SOWMYA A M	
8	TEAM 8	1KS22EC0408	SANGEETHA H.M	FREQUENCY MODULATION
		1KS22EC0402	B.SREEPADREDDI	
		1KS22EC0412	VAISHNAVI .V	
9	TEAM 7	1KS21EC091	V.SHREYAS	PHASE LOCKED LOOP
		1KS21EC114	VEERESH KN	
		1KS21EC088	SATHYAM	
10	TEAM 8	1KS21EC081	SAGAR GS	AM and FM RECEIVER
		1KS21EC087	SANJAY P	
		1KS21EC407	PRAJWAL PATIL BS	
11	TEAM 9	1KS21EC105	TEJASHREE.N	DELTA MODULATION
		1KS21EC111	VARSHA JAYAKUMAR	
		1KS21EC083	SAMITHA PRAKASH	
		1KS21EC104	TARUN M	

12	TEAM 10	1KS21EC075	REHMAN SHARIFF	TIME DIVISION MULTIPLEXING
		1KS21EC089	SHAIKH ARFATH	
		1KS21EC078	HARI DHANUSH	
13	TEAM 11	1KS21EC095	SPOORTHY MU	AMPLITUDE MODULATION
		1KS21EC096	SRILAKSHMI G	
		1KS21EC110	VAISHNAVI BA	
		1KS21EC116	VIDYA RAWAL D	
14	TEAM 12	1KS21EC072	RAKSHITH S	QUADRATURE PHASE SHIFT KEYING
		1KS21EC085	SANJAY G	
		1KS21EC101	SUPREETH A	
		1KS21EC103	SUSHEN	
15	TEAM 13	1KS21EC082	SAI RAHUL N	PULSE WIDTH MODULATION
		1KS21EC071	RAGHAVENDRA	
		1KS21EC109	UDAY KUMAR	
16	TEAM 14	1KS21EC070	PUNITH M	PULSE CODE MODULATION
		1KS21EC086	SANJAY N	
		1KS21EC090	SHASHANK C U	
		1KS21EC103	SINDHU M NIMBAL	
17	TEAM 15	1KS21EC120	VYSHAK G	FREQUENCY MODULATION
		1KS21EC080	SHAJITH ALI	
		1KS21EC0121	YASHWANTH M	
		1KS22EC404	SHRUJANA G	



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Signature of Course In-charge

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K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
Department of Electronics & Communication Engineering
2022-23

Course Name: Communication Theory
Semester/sec:IV A

Course Code: 21EC44

Content Beyond Syllabus

ASSIGNMENT TYPE: POSTER PRESENTATION


Objective: Title of the topic to be Presented Poster presentation
POs Covered: 5,9,10

Marks: 20

Batch No	USN	Name	Assignment topic
1	1KS21EC024	DAGGUPATI CHARITHA	QPSK
	1KS21EC025	DAMINI S	
	1KS21EC036	KARAN S	
	1KS21EC058	OMKAR N BHUJARKAR	
2	1KS21EC015	B N JEEVAN	Minimum Shift Keying
	1KS21EC051	NANDAN K	
	1KS21EC059	PAVAN M PAI	
	1KS21EC065	PRAJWAL R	
3	1KS21EC054	NAVEEN S	Eye Pattern
	1KS21EC043	LOHITH B	
	1KS21EC044	LOHITH S	
	1KS21EC045	MANOJ T V	
4	1KS21EC039	KUSHAL GOWDA U	Inter symbol Interference
	1KS21EC035	KAMBHAMPATI VIVEK	
	1KS21EC028	GAGAN V	
	1KS21EC006	AKSHAY C	
5	1KS21EC007	AKSHAY M S	Quantization in Image Processing
	1KS21EC068	PREETHAM M	
	1KS21EC063	PRAJWAL G V	
	1KS21EC066	PRATHAM R SHANBHAG	
6	1KS21EC062	PRAJWAL D	Tapped delay line Equalizer
	1KS21EC016	B P SAMARTH	
	1KS21EC042	LOHIT S HOOLAGERI	
	1KS21EC064	PRAJWAL H S	
7	1KS21EC002	ABHIJITH R	QPSK
	1KS21EC048	MITHUN C	
	1KS21EC021	CHINTAN D S	
	1KS21EC004	ABHISHEK T S	
8	1KS21EC061	POOJA R	Satellite Communication
	1KS21EC050	MUTTHULURU SAI HIMAJA	
	1KS21EC018	BHAVYA K	
9	1KS21EC003	ABHISHEK H C	QAM
	1KS21EC009	ANIRUDHA R BHAT	
	1KS21EC014	ASHWIN S R	

	1KS21EC031	GURUSHANKARA M	
10	1KS21EC008	ANAGHA PRAKASHI	Pulse Width Modulation
	1KS21EC037	KEERTHANA S	
	1KS21EC046	MEGHANA N	
11	1KS21EC001	AADHYA B N	OFDM
	1KS21EC011	ARCHANA M	
	1KS21EC027	DEEPIKA D	
12	1KS21EC010	ARCHANA G M	Adaptive Delta Modulation
	1KS21EC013	ASHCHARYA N B	
	1KS21EC032	HARINI L	
	1KS21EC040	KUSUMA M S	
13	1KS21EC049	MONISHA D	GPS Satellite System
	1KS21EC047	MISBA M	
	1KS21EC055	NAYANA J	
	1KS21EC056	NAYANA S	
14	1KS21EC020	BINDUSHREE S	FM Modulation
	1KS21EC038	KOMALA N	
	1KS21EC041	LIKITHA L	
15	1KS21EC017	B S BHARGAV	Multiplexing
	1KS21EC023	CHIRANTH V V	
	1KS21EC033	HEMANTH D R	
	1KS21EC053	NARAHARI N JOSHI	
16	1KS21EC005	AISHWARYA A	Vocoders
	1KS21EC019	BHUVANA H	
	1KS21EC026	DEEKSHA H K	
	1KS21EC029	GAGANA SINDHU N	


 Signature of Course In charge

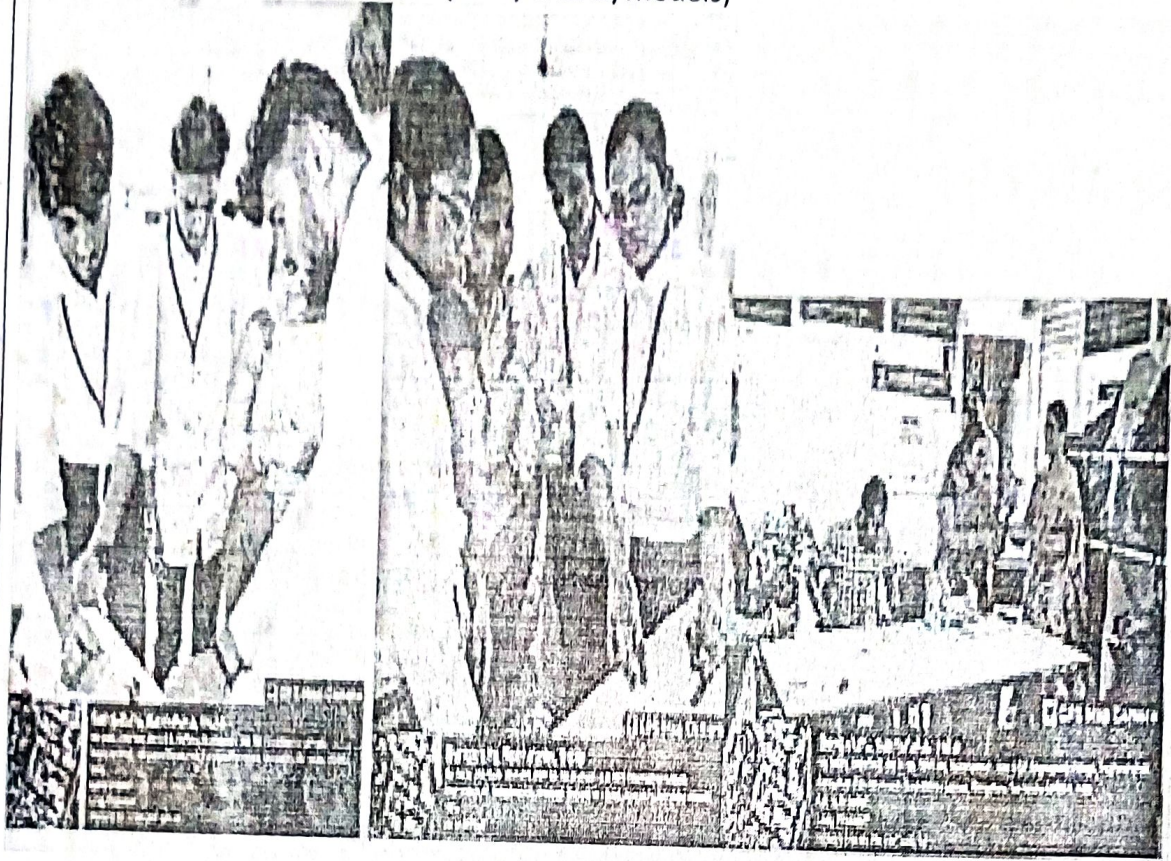

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content Beyond syllabus

Academic Year	2022-23 (Even)
Name of the Faculty	S.Christo Jain
Course Name /Code	Circuits and Controls/21EC43
Semester/Section	IV/B
Activity Name	Mini Projects
Topic Covered	Circuits and Controls
Date	2/09/23
No. of Participants	63
Objectives/Goals	<ul style="list-style-type: none">To Check the students Design & Implementation of concepts learnt in Circuits & Controls
ICT Used	Projectors, PC & Camera
Appropriate Method/Instructional materials/Exam Questions	<ul style="list-style-type: none">Students were made to select any concept in Circuits and Controls and design and Implement minor project with demo.Obtain results are discussed in the report submitted.
Relevant PO's	<ul style="list-style-type: none">PO1,PO2,PO3,PO5,PO7(based on topics)PO9,PO10, PO11 & PO12
Significance of Results/Outcomes	<ul style="list-style-type: none">Students designed project relates the importance of saving energy and protecting environment, techniques for generating energy and managing wastage, etc.
Reflective Critique	<ul style="list-style-type: none">The activity improved the hands on projects.The activity provided a platform for students to interact with peers, improve their communication skills, work as individuals and as team.

Proofs (Photographs/Videos/Reports/Charts/Models)



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K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING
TEACHING AND LEARNING
ACTIVITY REPORT

Academic Year	2022-23
Name of the Faculty	Dr. P N Sudha
Course Name /Code	Circuits & Controls/ 21EC43
Semester/Section	4 th A Section
Activity Name	Mini project
Topic Covered	Circuits & Controls
Date	2 nd Sep 2023
No. of Participants	63
Objectives/Goals	<ul style="list-style-type: none"> To check the students Design & implementation of concepts learnt in Circuits & Controls
ICT Used	Projector, PC & Camera
Appropriate Method/Instructional materials/Exam Questions <ul style="list-style-type: none"> Students were made to select any concept in Cryptography and write a program & execute the same Obtained results are discussed in the report submitted. 	
Relevant PO's	<ul style="list-style-type: none"> PO1, PO2, PO3, PO5, PO7(DEPENDING ON THE TOPIC) PO9, PO10, PO11 & PO12
Significance of Results/Outcomes	To know understanding level of the students and its was interactive session.
Reflective Critique	Good interactive session

List of Mini Projects by students

Batch No.	Team details				Project titles
1	Gurushankara M 1KS21EC031	Anirudha R Bhat 1KS21EC009	Abhishek H C 1KS21EC003	Ashwin S R 1KS21EC014	Radar System
2	Preetham.M 1KS21EC068	Prajwal.G.V 1KS21EC063	Akshay.M.S 1KS21EC007	Pratham.R 1KS21EC066	Traffic Lights Circuit
3	B S BHARGAV 1KS21EC017	CHIRANTH V V, 1KS21EC023	NARAHARI N JOSHI 1KS21EC053	HEMANTH D R, 1KS21EC033	Regulated Power Supply And Application
4	1KS21EC062	1KS21EC042	1KS21EC064	1KS21EC067	Obstacle Avoiding Robot ¹
5	Bhavya.k & 1KS21EC018	Sal hlmaja & 1KS21EC050	Pooja & 1KS21EC061		Superposition

6	Chintan ds 1KS21EC021	Mithun c 1KS21EC048	Abhijit R 1KS21EC002	Abhishek TS 1KS21ECO	Accident Prevention Sensor
7	Kushal Gowda 1KS21EC039	K VIVEK 1KS21EC035	Gagan V 1KS21EC028	Akshay C 1KS21EC06	Motor Speed Controller DC(Closed Loop System)
8	Keerthana S 1ks21ec037	Anagha prakash 1ks21ec008	Meghana N 1ks21ec046		Waste Segregation System
9	Naveen S. 1KS21EC54	Lohith B. 1KS21EC043	Lohith S. 1KS21EC044	Manoj T V. 1KS21EC045	Ac Generator
10	Aishwarya 1KS21EC005	Bhuvana H 1KS21EC019	Deeksha HK 1KS21EC026	Gagana Sindhu N 1KS21EC029	8 Channel Remote Controller
11	Kusuma.M.S (1KS21EC040)	Archana.G.M (1KS21EC010)	Ashcharya (1KS21EC013)	Harini (1KS21EC032)	DC Motor Speed Controller(Simulation).
12	D Charita 1KS21EC024	Damini S 1KS21EC025	Karan S 1KS2QEC036	Omkar N B 1KS21EC058	Temperature Monitor
13	Misba.M 1KS21EC047	MONISHA D 1KS21EC049	NAYANA J 1KS21EC055	NAYANA S 1KS21EC056	Anti Sleep Alarm For Drivers
14	Aadhya BN 1KS21EC001	Archana M 1KS21EC011	Deepika D 1KS21EC027		Water Level Indicator
15	Bindushree S & 1KS21EC020	Komala N &1KS21EC038	Likitha L 1KS21EC041		Real Time Alcohol Detection And Auto Cut Off Engine System
16	Prajwal R, 1KS21EC065	BN. Jeevan, 1KS21EC015	Nandan. K, 1KS21EC051	Pavan. M. Pai, 1KS21EC059	Laser Security

Proofs (Photographs/Videos/Reports/Charts/Models)



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Signature of Course In charge

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Signature of HOD ECE



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

KSIT
K. S. INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Content beyond syllabus- Mini project

Academic Year	2022-2023		
Batch	2021-2024		
Year/Semester/section	II/IV/ B		
Subject Code-Title	21EC42-DIGITAL SIGNAL PROCESSING		
Name of the Faculty	Mrs. Kavya B M	Dept	ECE

Objective: To identify the significance of mini Project in Digital Signal Processing and give the Mini Project report.


Instruction to be followed:

1. The topic allotted or assigned must be out of the course.
2. The work given must be from Apply level onwards
3. This will address PO1,PO2, PO3,PO5,PO9,PO10,PO11,PO12

SI.NO.	Title	Batch Number	Batch
1	Develop a sampling and Quantization wave and show the simulation results using MATLAB/SIMULINK.	1	Rehman HariDhanush ShaikArfath
2	Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.	2	Shriya Surabhi Suneha Rakshitha M R
3	Develop and demodulate an SSB modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.	3	Adithya Apoorva Pavan Suddep
4	Develop and demodulate a Frequency Modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.	4	Srilakshmi Spoorthy vaishnavi B A Vidya R
5	Obtain frequency division multiplexing (FDM) of three message signals. Assume the modulation used as SSB using MATLAB/SIMULINK.	5	Shwetha V Sumukh P TusharCherian Varshith S

6	Develop a Phase Modulated wave and plot the waveform in time domain using MATLAB/SIMULINK and Obtain the waveform for varying parameters.	6	Vyshak Yashwant Srujana Shajith
7	Develop a Frequency Modulated wave from a Phase Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.	7	Uday Sai Rahul Raghavendra
8	Develop a sampling and Quantization wave and show the simulation results using MATLAB/SIMULINK.	8	Shreyas Sathyam Veeresh
9	Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.	9	Chaitra Hema Soudarya Sowmya
10	Develop and demodulate an SSB modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.	10	Preksha Sanjana Varsha Vidya I
11	Develop a Phase Modulated wave and plot the waveform in time domain using MATLAB/SIMULINK and Obtain the waveform for varying parameters.	11	Punith Sanjay N Shashank Sindhu
12	Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.	12	Rithika Sripriya Vidyashree Suneetha
13	Develop and demodulate an SSB modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.	13	Rakshit supreet sanjay G Sushen
14	Develop and demodulate an SSB modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.	14	Rakshith S Sanjay G Supreeth A Sushen
15	Develop a sampling and Quantization wave and show the simulation results using MATLAB/SIMULINK.	15	SamhithaPrakash Tarun M Tejashree Varsha J
16	Develop a Frequency Modulated wave from a Phase Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.	16	Sagar G S Sanjay P PrajwalPatil B S
17	Develop a Phase Modulated wave and plot the waveform in time domain using MATLAB/SIMULINK and Obtain the waveform for varying parameters.	17	B Sripadreddi Sangeetha H M Vaishnavi V


VISHWAKARMA TECHNOLOGICAL INSTITUTION (KARAVANGLA), BELLARANGA - 560018



DIGITAL SIGNAL PROCESSING (DIT401)
GROUP ACTIVITY REPORT ON
"MODULATION & ITS TYPES"

Submitted By
RITESH K M (18N11E007)
SUDHIN A H L (18N11E009)
SUNIL K A (18N11E010)
VISHVAKUMAR K (18N11E011)

Under the Guidance of
Shri. K. S. SASTRI
Asst. Professor
Dept. of Electronics and Communication



Department of Electronics and Communication
K. S. INSTITUTE OF TECHNOLOGY
No. 14, Rajmangalashah, Kanakapura Road, Bengaluru - 560015

1. PROBLEM STATEMENT
Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.

2. INTRODUCTION
MATLAB




Fig.1: MATLAB logo

MATLAB (MATrix LABoratory) is a proprietary multi-paradigm programming language and numeric computing environment developed by MathWorks. MATLAB allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages.

Although MATLAB is oriented primarily for numeric computing and graphical toolboxes, since the R2014B release, it has added support for symbolic computation, distributed computing, and parallel processing. It also includes packages for interfacing and controlling hardware devices, such as embedded processors, sensors, actuators, and communication systems.

SCOPE
The MATLAB application is first performed by MATLAB programming language. A simulation script of the MATLAB application is created using the Command Window. An interactive environment of shell or executing text file containing MATLAB code.

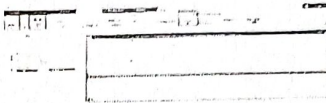



Fig.2: Screenshot of matlab code

3. AM wave and demodulate
Amplitude modulation is a process by which the wave signal is transmitted by modulating the amplitude of the signal. It is often called AM and is commonly used in transmitting a piece of information through a radio carrier wave. Amplitude modulation is mostly used in the form of electronic communication.

Types of Amplitude Modulation

There are three basic types of modulation as follows:

1. Double Sideband suppressed carrier Modulation (DSB-SC)
2. Single Sideband Modulation (SSB)
3. Vestigial Sideband Modulation (VSB)



Demodulation
Demodulation is the process of recovering the original message signal from the modulated wave. A demodulator is a device that performs this function. It is a device that extracts the original message signal from the modulated wave. The demodulation process is the reverse of the modulation process. The demodulation process is the reverse of the modulation process. The demodulation process is the reverse of the modulation process.

3.1 Single Sideband Modulation, Double Sideband Modulation and VSB Modulation

3.1.1 Single Sideband Modulation
Single sideband modulation is a type of amplitude modulation in which only one sideband is transmitted. This is done to save bandwidth and power. The demodulation process for SSB is more complex than for DSB-SC.

3.1.2 Double Sideband Modulation
Double sideband modulation is a type of amplitude modulation in which both the upper and lower sidebands are transmitted. This is the most common type of amplitude modulation. The demodulation process for DSB-SC is simpler than for SSB.

3.1.3 Vestigial Sideband Modulation
Vestigial sideband modulation is a type of amplitude modulation in which one sideband is transmitted with a small portion of the other sideband. This is done to simplify the demodulation process. The demodulation process for VSB is similar to that of DSB-SC.

3. PROGRAM

```

% MATLAB code for AM wave generation and demodulation
% Parameters
fc = 1000; % Carrier frequency (Hz)
fm = 100; % Modulating frequency (Hz)
Am = 1; % Modulating signal amplitude
Ac = 1; % Carrier signal amplitude
t = 0:0.001:1; % Time vector (s)

% Modulating signal
m = Am * cos(2*pi*fm*t);

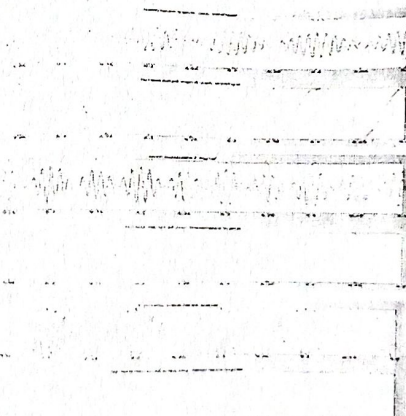
% Carrier signal
c = Ac * cos(2*pi*fc*t);

% AM wave generation
AM = (1 + m) * c;

% Plotting
figure;
plot(t, m, 'b');
hold on;
plot(t, c, 'r');
plot(t, AM, 'g');
title('AM Wave and its components');
xlabel('Time (s)');
ylabel('Amplitude');

```

3.1.1



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K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Content beyond syllabus- Mini project

Academic Year	2022-2023		
Batch	2021-2024		
Year/Semester/section	II/IV/ A		
Subject Code-Title	21EC42-DIGITAL SIGNAL PROCESSING		
Name of the Faculty	Mrs. Bhanumathi A	Dept	ECE

Objective: To identify the application mini Project of Digital Signal Processing and give the Mini Project report.

Instruction to be followed:

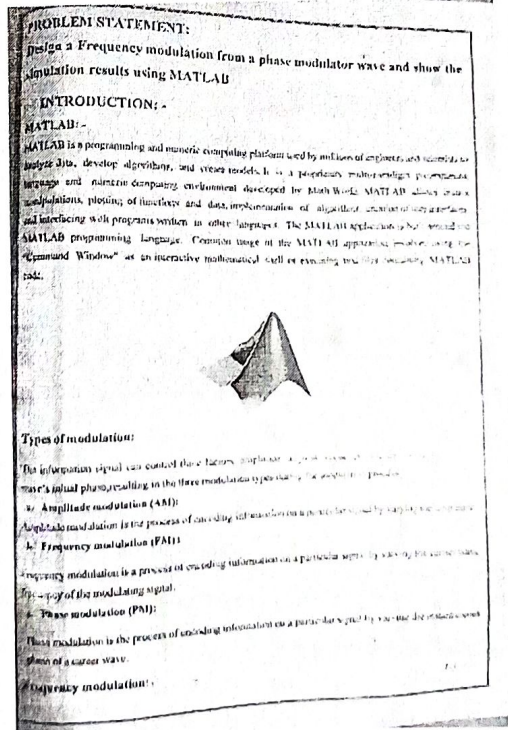
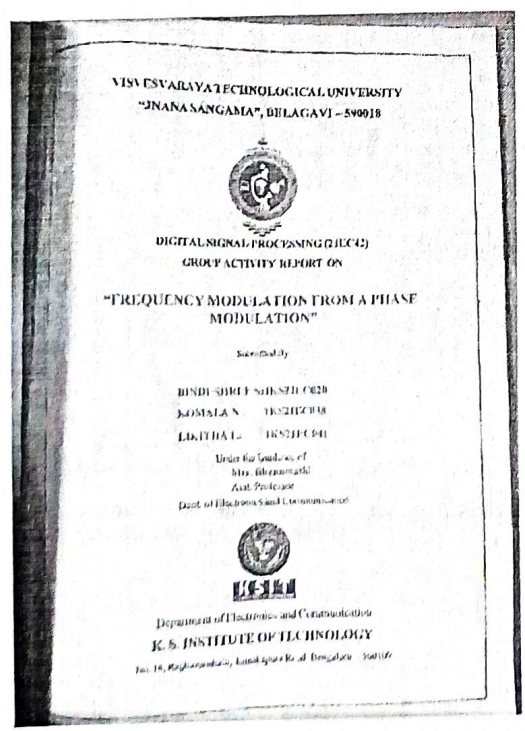
1. The topic allotted or assigned must be out of the course.
2. The work given must be from Apply level onwards
3. This will address PO1,PO2, PO3,PO5,PO9,PO10,PO11,PO12

SL.No	TEAM	Name of the student & USN	Title of Mini Project Report
1	TEAM 1	Abhijith R	Develop a sampling and Quantization wave and show the simulation results using MATLAB/SIMULINK.
		Abhishek T S	
		Chintan D S	
		Mithun	
2	TEAM 2	Monisha D	Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.
		Misba M	
		Nayana S	
		Nayana J	
3	TEAM 3	Abhishek H C	Obtain quadrature carrier multiplexing of two message signals and show the simulation results using MATLAB/SIMULINK.
		Anirudha R bhat	
		Ashwin S R	
		Gurushankara M	
4	TEAM 4	Archana G M	Develop and demodulate a Frequency Modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.
		Ascharya N B	
		Harini L	
		Kusuma M S	

5	TEAM 5	Gagana Sindhu N	Obtain frequency division multiplexing (FDM) of three message signals. Assume the modulation used as SSB using MATLAB/SIMULINK.
		Deeksha H K	
		Bhuvana H	
		Asishwarya A	
6	TEAM 6	Anagha Prakash	Develop a Phase Modulated wave and plot the waveform in time domain using MATLAB/SIMULINK and Obtain the waveform for varying parameters.
		Keerthana S	
		Meghana N	
7	TEAM 7	Bindushree S	Develop a Frequency Modulated wave from a Phase Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.
		Komala N	
		Likitha L	
8	TEAM 8	Bhavya K	Develop and demodulate an DSB-SC modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.
		Sai himaja	
		Pooja R	
9	TEAM 9	Archana M	Develop a Phase Modulated wave from a Frequency Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.
		Aadya B N	
		Deepika D	
10	TEAM 10	Narahari	Develop a sampling and Quantization wave and show the simulation results using MATLAB/SIMULINK.
		Chiranth	
		Hemanth	
		Bhargav	
11	TEAM 11	Preetham M	Develop an AM wave and demodulate the same using MATLAB/SIMULINK and Obtain the demodulated waveform for under modulation, over modulation and critical modulation.
		Prajwal G V	
		Akshay M S	
		Pratham	
12	TEAM 12	Manoj T V	Develop and demodulate an SSB modulated wave and plot the waveform in time domain as well as frequency domain using MATLAB/SIMULINK and Obtain the spectrum for varying parameters.
		Lohith S	
		Lohith B	
		Naveen S	
13	TEAM 13	Lohith S H	Develop quadrature carrier multiplexing of two message signals and show the simulation
		Samarth B P	

		Prajwal D	results using MATLAB/SIMULINK.
		Prajwal H S	
14	TEAM 14	Kushal gowda	Develop a Phase Modulated wave and plot the waveform in time domain using MATLAB/SIMULINK and Obtain the waveform for varying parameters.
		Akshay C	
		Vivek	
		Gagan V	
15	TEAM 15	Charitha	Obtain a Frequency Modulated wave from a Phase Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.
		Karan S	
		Omkar	
		Damini	
16	TEAM 16	Prajwal R	Develop a Frequency Modulated wave from a Phase Modulator using suitable functions using MATLAB/SIMULINK and Obtain the waveforms for varying parameters.
		Jeevan B N	
		Pavan M Pai	
		Nandan K	

Proofs (Photographs/Videos/Reports/Charts/Models)



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Signature of HOD-ECE



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

FORMAT & RUBRIC

CONTENT BEYOND SYLLABUS: POSTER PRESENTATION

Assignment topic: COMPLEX ANALYSIS, PROBABILITY AND STATISTICAL METHODS/21MAT41/ECE-B

Objective:

1. To improve the self – learning skills of students.
2. To improve the communication skills of students.
3. To improve the confidence level and memory of students.
4. This will address **PO9, PO10, and PO12.**
5. Assignment topic assigned from the course for each student.

Batch No.	Students		Remarks
	USN	Name	
1	1KS21EC069	PREKSHA S	
2	1KS21EC070	PUNITH M	
3	1KS21EC071	RAGHAVENDRA NARAYAN PUJAR	
4	1KS21EC072	RAKSHITH S	
5	1KS21EC073	RAKSHITHA M R	
6	1KS21EC074	RAYADURG JOISH SHRIYA	
7	1KS21EC075	REHAMAN SHARIFF	
8	1KS21EC076	RITESH KUMAR SINHA	
9	1KS21EC077	RITHIKA M	
10	1KS21EC078	S HARI DHANUSH	
11	1KS21EC080	S SHAJITH ALI	
12	1KS21EC081	SAGAR G S	
13	1KS21EC082	SAI RAHUL N	
14	1KS21EC083	SAMHITHA PRAKASH	

15	1KS21EC084	SANJANA V	
16	1KS21EC085	SANJAY G	
17	1KS21EC086	SANJAY N	
18	1KS21EC087	SANJAY P	
19	1KS21EC088	SATHYAM KUMAR MANDAL S	
20	1KS21EC089	SHAIK ARFATH	
21	1KS21EC090	SHASHANK C U	
22	1KS21EC091	SHREYAS RAGHAVENDRA V	
23	1KS21EC092	SHWETHA V	
24	1KS21EC093	SINDHU M NIMBAL	
25	1KS21EC095	SPOORTHY M U	
26	1KS21EC096	SRILAKSHMI G	
27	1KS21EC097	SRIPRIYA H G	
28	1KS21EC098	SUMUKH P	
29	1KS21EC099	SUNEETHA	
30	1KS21EC100	SUNEHA S	
31	1KS21EC101	SUPREETH A	
32	1KS21EC102	SURABHI K R	
33	1KS21EC103	SUSHEN KRISHNAPUR	
34	1KS21EC104	TARUN M	
35	1KS21EC105	TEJASHREE N	
36	1KS21EC106	THARUN K V	
37	1KS21EC107	THEJAS H V	
38	1KS21EC108	THUSHAR CHERIAN	
39	1KS21EC109	UDAYA KUMAR S R	
40	1KS21EC110	VAISHNAVI B A	

41	1KS21EC111	VARSHA JAYAKUMAR	
42	1KS21EC112	VARSHA S DAVASKAR	
43	1KS21EC113	VARSHITH S	
44	1KS21EC114	VEERESH K N	
45	1KS21EC115	VIDYA I	
46	1KS21EC116	VIDYA RAWAL D	
47	1KS21EC117	VIDYASHREE R	
48	1KS21EC118	VIJAY YADAV R	
49	1KS21EC120	VYSHAK G R	
50	1KS21EC121	YASHWANATH.M	
51	1KS22EC400	ADITHYA D	
52	1KS22EC401	APOORVA B	
53	1KS22EC402	B SREEPADREDDI H BULLANGOUDAR	
54	1KS22EC403	CHAITRA N	
55	1KS22EC404	GONUGUNTLA SHRUJANA	
56	1KS22EC405	HEMA K	
57	1KS22EC406	PAVANGOWDA H P	
58	1KS22EC407	PRAJWAL PATIL B S	
59	1KS22EC408	SANGEETHA H M	
60	1KS22EC409	SOUNDARYA S	
61	1KS22EC410	SOWMYA A M	
62	1KS22EC411	SUDEEP P	
63	1KS22EC412	VAISHANAVI V	

- Criteria for evaluation & Instruction for students

Sl. No.	Criteria	Details
1.	Batch number, Name & USN of the students in the batch	69 to 121 400 to 412
2.	Statement on individual's contribution	Individual posters
3.	Number of posters	Student must be made to design poster as per the topic assigned from the course.
4.	Check for plagiarism	-
5.	Presentation time	15 minutes only

Important dates:

Sl.No	Details	Date
1.	Date of issue of topics for presentation	Date: 28/8/2023
2.	The posters should be submitted in person by the student	Date: 04/9/2023
3.	Presentation date	Date: 04/09/2023
4.	Date of announcement of evaluation details for poster presentation	Date: 05/09/2023
5.	Dates for Appeal/challenge (on or before)	Date: 06/09/2023

Note: Assignments marks will not be given if assignments submitted on later dates and failed to present seminar.

Sl. No.	Details	Date
1.	Last date/time for submission of presentations (assignment)	Date: 04/09/2023 Time: Before 4.00 PM
2.	Presentation day	Date: 04/09/2023
3.	The posters should be submitted in person by the student on or before the mentioned date.	Date: 04/09/2023 Email id: lakshmi.c@ksit.edu.in
4.	Date of announcement of results	Date: 05/09/2023
5.	Dates for Appeal/challenge (on or before)	Date: 06/09/2023

Note: Marks will not be given, if reports are not submitted as per schedule and Failed to make a presentation.

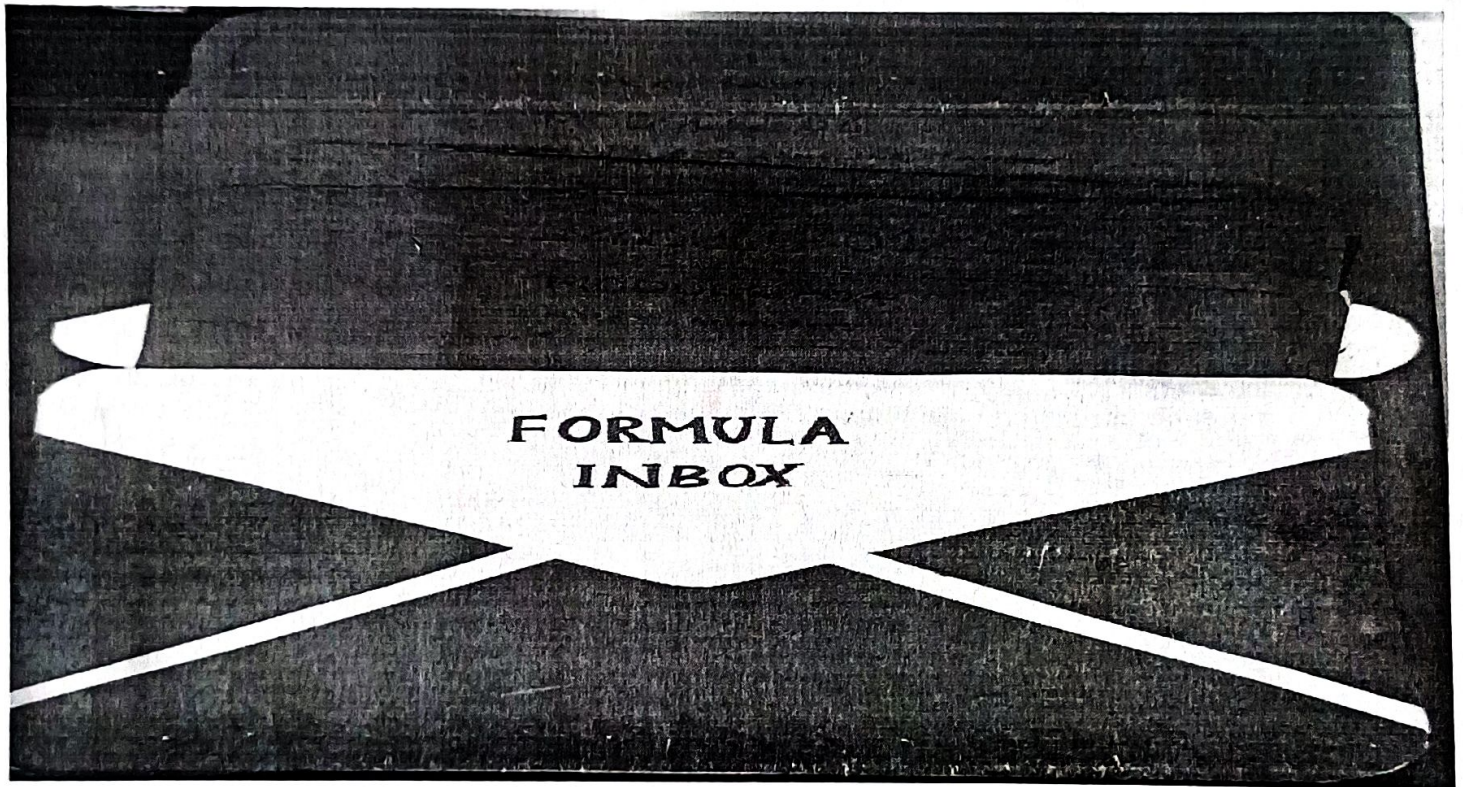
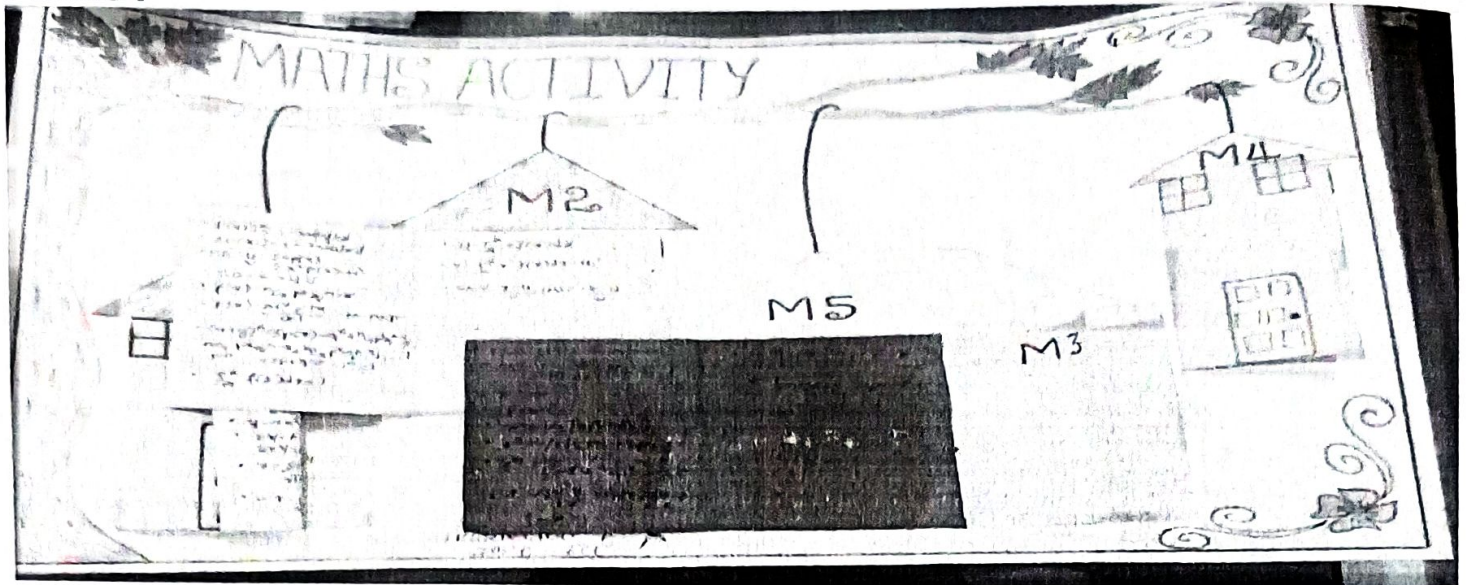
Rubrics: Poster Presentation

Sl.No	Criteria
1.	Quality of the poster
2.	Technical content
3.	Structuring of the speech
4.	Clarity of speech with respect to the topic
5.	Voice modulation
6.	Body language

Strategy to award marks for presentations based on the criteria

Sl. No.	Criteria	Marks for assignments
1.	Assignment not submitted in time or assignments submitted in time but not presented.	No marks
2.	Assignments submitted in time, presented and any 04 or more criteria not met.	2 marks
3.	Assignments submitted in time, presented and any 03 or more criteria not met.	4 marks
4.	Assignments submitted in time, presented and any 02 or more criteria not met.	6 marks
5.	Assignments submitted in time, presented and any 01 or more criteria not met.	8 marks
6.	Assignments submitted in time, presented and all criteria are met	10 marks

Proofs :



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Course in charge

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HOD
Head of the Department
Dept. of Science and Humanities
K.S. Institute of Technology
Bengaluru - 560 109

6th semester:

VI/A&B	Digital Communication 18EC61	Presentation	9 10 12	Dr. Rekha N
VI/A	Embedded Systems 18EC62	Mini Project	6 7	Dr. Sudarshan B
VI/B	Embedded Systems 18EC62	Mini Project	6 7	Mr. Praveen A
VI/A&B	Microwave and Antennas 18EC63	Literature survey paper	9 10 12	Dr. Chanda V Reddy Dr. Dinesh Kumar D S
VI/A & B	Python Application Programming 18EC646	Poster Presentation	9 10 12	Dr. Surekha B
VI/ A&B	Introduction to Data Structures and Algorithms 18CS652	Quiz	1,2,12	Dr. Vijaya Lakshmi M
VI/ A&B	Supply Chain Management 18ME653	Presentation of case study	4 8 9 10 12	Mrs . Bhargavi Ananth



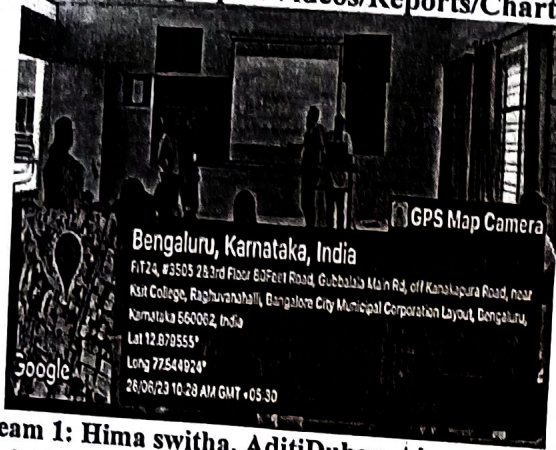
K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS COMMUNICATION & ENGINEERING

TEACHING AND LEARNING

Content Beyond syllabus

Academic Year	2022-23
Name of the Faculty	Dr. Vijayalaxmi Mekali
Course Name /Code	Introduction to Datastructures and Algorithms-18CS652
Semester/Section	VI A and B
Activity Name	Quiz & Programming
Topic Covered	Quiz: Introduction to C, Arrays, Structures and Functions Programming: Stack, Linked list and Queues
Date	Quiz: 29-4-2023 Programming: 22 nd to 31 st May 2023
No. of Participants	66
Objectives/Goals	To analyze the understanding of the students regarding C programming concepts and Datastructures concepts programming
ICT Used	LCD
Appropriate Method/Instructional materials/Exam Questions	<p>Quiz: The students were given 15 quiz questions from Module1: Introduction to C, Arrays, structures and functions. The students were give 60 minutes to attend the quiz. Quiz questions were attached with this report.</p> <p>Programming: 17 teams were formed, each team with 3 students. Three programming questions from linked list, stack and queue concepts were given to implement in C on any suitable platform.</p> <p>Students were presented the programs and output in allotted stots. Programming Questions were attached with this report.</p>
Relevant POs	PO1, PO2, PO12
Significance of Results/Outcomes	Students could assess their knowledge in module 1
Reflective Critique	By conducting peer review we can measure growth in knowledge, abilities, and/or skills


Proofs (Photographs/Videos/Reports/Charts/Models)



Team 1: Hima switha, AditiDubey, Ajay B G and Akash M were presenting the programs



Team 8: N Shreya, Neha C R and Pavani T S were presenting the programs

 13/7/23
Signature of Faculty Incharge

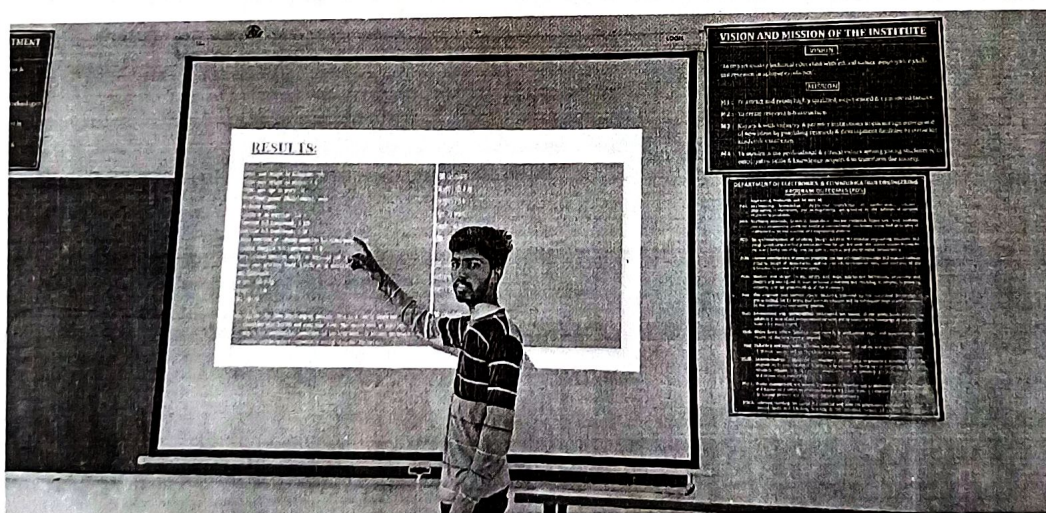
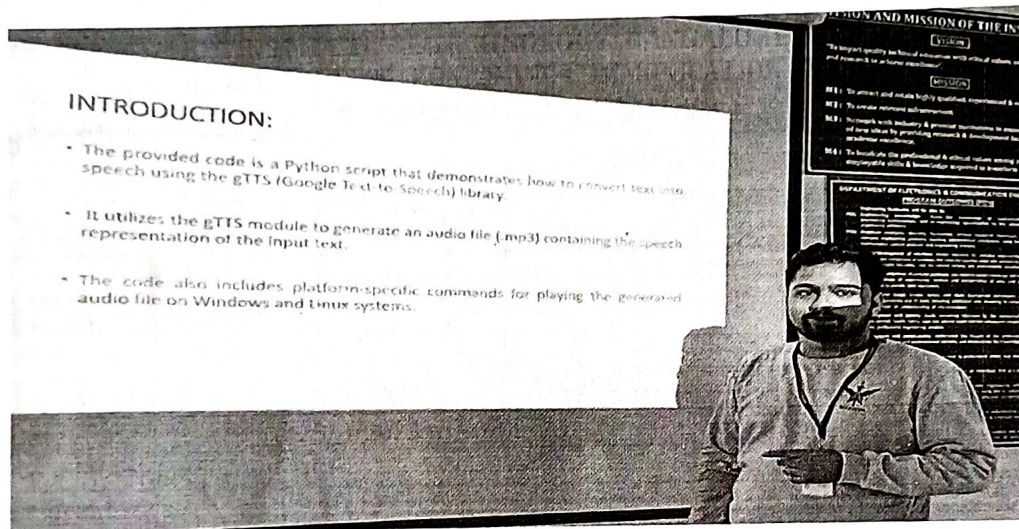

Signature of HOD



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
CONTENT BEYOND SYLLABUS

Academic Year	2022-23 (Even)
Name of the Faculty	Dr. Surekha Borra
Course Name /Code	Python Application Programming/18EC646
Semester/Section	VI/A & B
Activity Name	Poster Presentations
Topic Covered	All Modules
Date	25/3/2023 to 30/06/23
No. of Participants	105
Relevant PO's	9,10,12

Proofs (Photographs/Videos/Reports/Charts/Models)



Sl. No	Details	Date
1.	Date of issue of topics for presentation	25/3/23
2.	Dates for Appeal/challenge (on or before)	28/3/23
3.	Last date for the submission of the Project Code	8/6/23
4.	Last date for Demo Presentation	10/6/23
5.	Date of announcement of evaluation	30/6/23

Note:

1. Projects should be helpful to society

2. Assignments marks will not be given if submitted on later dates or failed to present a seminar/demo.

Rubrics/Evaluation Strategy

Sl. No	Criteria	Marks
1.	Results	10
2.	Quality of Team Demo	5
3.	Quality of Code	5
4.	Usefulness to society/environment	5
5.	Individual Contribution to Project	5
6.	Individual Contribution to Report	5
7.	Tool Learning	5
	Total	40 (Scale the Marks to 10)

Sl.No.	Team No.		USN	Name	Title of Project
1	T-1	1	1KS20EC036	HARSHITHA. N	Banking Sytem
2		2	1KS20EC034	HARSHITHA. BL	
3		3	1KS20EC035	HARSHITHA. J	
4		4	1KS20EC032	HARINI K	
5	T-2	1	1KS20EC025	Divya.N	Library Management System
6		2	1KS20EC023	Dhamini.J.Naidu	
7		3	1KS20EC010	Bhavitha.B	
8	T-3	1	1KS20EC015	C. Umadevi	Online dligital voting system using python
9		2	1KS20EC050	K. Prathima	
10		3	1KS19EC026	Eram Fathima	
11		4	1KS20EC060	N.Gouthami	
12	T-4	1	1KS20EC042	K Jeevitha	Face detection and counting
13		2	1KS20EC046	Kavya S M	
14		3	1KS20EC054	Madiha	
15	T-5	1	1KS20EC002	Aditi Dubey	Data visualization of Covid-19 Cases in India
16		2	1KS20EC030	Gandhamani	
17		3	1KS20EC057	Meghashree	
18	T-6	1	1KS20EC053	M.Archana	Units converter
19		2	1KS20EC047	Keerthana.b.s	

20		3	1KS20EC014	C.Sai Srujitha	
21		4	1KS20EC038	J.Chalthanya Krishna	
22	T-7	1	1KS20EC039	JAMUNA SG	Employees number tracking
23		2	1KS20EC040	JANHAVI R	
24		3	1KS20EC056	MANASWINI KM	
25	T-8	1	1KS20EC077	Rakshith R	Language Translator using Python
26		2	1KS20EC093	Sharath M	
27		3	1KS20EC108	Uday C H	
28		4	1KS20EC098	Shreyas P S Rao	
29	T-9	1	1KS19EC034	Hima swetha	Health and Fitness Calculator
30		2	1KS20EC008	Bs. Hema shree	
31		3	1KS20EC013	Chaltra k	
32	T-10	1	1KS20EC070	Priyanka K	ATM Simulation
33		2	1KS20EC083	S Arun kumar	
34		3	1KS20EC085	Sadhana srlnivas	
35		4	1KS20EC092	Shakthi Anbazhagan M	
36	T-11	1	1KS20EC001	Abhishek J	Object Weight Calculation
37		2	1KS20EC017	Chetan G	
38		3	1KS20EC018	Chetan Kumar J	
39		4	1KS20EC019	Chetan Kumar T	
40	T-12	1	1KS20EC111	VAISHNAVI VH	QR CODE GENERATOR USING PYTHON
41		2	1KS20EC113	VIJAYALAKSHMI K	
42		3	1KS20EC117	YASHILAA S	
43	T-13	1	1KS20EC026	Eshwar Biradar	Make a clock using python programming
44		2	1KS20EC048	Kiran Dev D	
45		3	1KS20EC052	Kusuma V R-	
46		4	1KS20EC055	Mahesh Biradar	
47	T-14	1	1KS20EC062	NEHA NAGARAJ AIRANI	Password Compliance Checker
48		2	1KS20EC112	N Varsha	
49		3	1KS20EC080	Ramya T	
50	T-15	1	1KS20EC073	Rahul Krishnan V	Python Weather Forecasting
51		2	1KS20EC103	Sumukha S	
52		3	1KS20EC105	Tarun Prasanna	
53		4	1KS20EC106	Taejas N Reddy	
54	T-16	1	1KS20EC084	Sachin NM	Air Quality Index Tracker
55		2	1KS20EC087	Sandeep YH	
56		3	1KS20EC109	Ujjwal Naidu	
57		4	1KS20EC114	Vinay SP	
58	T-17	1	1KS20EC068	Prema G	Random Geometric Patten
59		2	1KS20EC079	Rameshwar	

60		3	1KS20EC094	Shashank S	
61		4	1KS20EC097	Shreyas MS	
62	T-18	1	1KS20EC043	Amshumanth.k.m	TEXT TO SPEECH CONVERTER
63		2	1KS20EC049	Kiran v narayan	
64		3	1KS20EC051	Kumar kg	
65		4	1KS20EC058	Mohan krishna	
66	T-19	1	1KS20EC059	N Shreya	Generation of Contact Book
67		2	1KS20EC076	Rakshith NM	
68		3	1KS20EC101	Sonika R	
69		4	1KS20EC104	Suraksha N	
70	T-20	1	1KS20EC066	Pradhyumna SK	Daily Expenses Entry
71		2	1KS20EC075	Rajath KA	
72		3	1KS20EC116	Vineeth MS	
73		4	1KS20EC118	Yeshwanth Y	
74	T-21	1	1KS20EC061	Neha CR	BMI Calculator
75		2	1KS20EC065	Pavani TS	
76		3	1KS20EC071	Priyanka M	
77		4	1KS20EC072	Pushpa DT	
78	T-22	1	1KS20EC024	Dhruva Kumar S	Currency Converter
79		2	1KS20EC028	Gagan HC	
80		3	1KS20EC033	Harshith Gowda AR	
81		4	1KS20EC041	Jayanth H	
82	T-23	1	1KS20EC004	Ajay BG	Expenses Tracker GUI with Calender
83		2	1KS20EC006	Akash M	
84		3	1KS20EC016	Chaya S	
85	T-24	1	1KS20EC021	Darshan Kumar S	Speech to Text Converter
86		2	1KS20EC027	G Bhavana P	
87		3	1KS20EC031	Gomitha RC	
88	T-25	1	1KS20EC095	Shiva Reddy	Movie ticket booking system
89		2	1KS20EC096	Shreya H	
90		3	1KS20EC099	Shweta Deepak	
91	T-26	1	1KS20EC089	Sanjana G	Morse code translator
92		2	1KS20EC091	Sanjana TG	
93		3	1KS20EC102	Sumana N	
94		4	1KS20EC110	Vaishnavi A	
95	T-27	1	1KS20EC107	T Girish Chowdary	Donation Tracker
96	T-28	1	1KS20EC037	Inchara P	Income Tax Calculation
97		2	1KS20EC029	Gagana BS	
98	T-29	1	1KS20EC003	Afeefa	Donation Report Generator
99		2	1KS20EC011	Bhuvaneshwari	
100		3	1KS20EC012	Chaitanya	
101		4	1KS20EC020	Darshan K	
102	T-30	1	1KS20EC074	Rahul r	Youtube mp4 downloader
103		2	1KS20EC078	Rakshitha a	
104		3	1KS20EC082	Rohit a k	
105		4	1KS20EC115	Vinay sagar v alur	

Signature of Course In charge

Signature of HOD ECE



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING

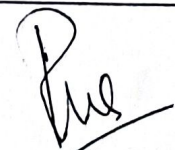
CONTENT BEYOND SYLLABUS

Academic Year	2021-22 (Even)
Name of the Faculty	Dr.Chanda V Reddy Dr. Dinesh Kumar D. S
Course Name /Code	Microwave and Antenna/18EC63
Semester/Section	VI/A &B
Activity Name	Literature survey Paper
Topic Covered	Microwave and Antenna Syllabus
Date	2/5/2023 to 30/6/2023
No. of Participants	112
Objectives/Goals	<ul style="list-style-type: none">To improve the self-learning skills of studentsTo improve the communication skills of students.To improve the writing skills of journal paper.
ICT Used	-
Appropriate Method/Instructional materials/Exam Questions <ul style="list-style-type: none">Journals / Conference papers referred	
Relevant PO's	9,10,12
Significance of Results/Outcomes	<ul style="list-style-type: none">This will teach & enhance working in team along with writing communication skills.Students wrote individual paper and also a merged together paper after analyzing with other papers written by their group mates.
Reflective Critique	<ul style="list-style-type: none">The activity improved the learning and communication skills of studentsThe activity provided a platform for students to interact with peers, improve their communication skills and work as individuals.The activity also helped them to write journal literature paper which will be required in future in research work.

Proofs (Photographs/Videos/Reports/Charts/Models)

- Main Paper and Individual papers Attached


Signature of Course Incharge


Signature of HOD ECE



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
Dept. of Electronics & Communication Engg.
FORMAT & RUBRICS DETAILS

2022-23

Course Name : Embedded Systems **Course Code : 18EC62**

Content Beyond Syllabus

ASSIGNMENT TYPE: MINI PROJECT ASSIGNMENT

Objective: Title of the Miniproject [Topic can be selected /allotted from the course]

Instruction to be followed:

1. The topic allotted or assigned must be from the course
2. The work given must be from Apply level onwards
3. This will address PO6,PO7 (DEPENDING ON THE TOPIC)PO9, PO10, PO11&PO12
4. Types of minor projects

Sl.No.	Project type	Details
1.	Mini project	To demonstrate working prototype or a model learnt in the course for a specific application

5. Process to assign and evaluate the assignments steps.

- Divide the students into batch of five. The topic selected must be from course.
- Officially announce the batches, assignment topics Important Dates, Guidelines and Evaluation strategy for each batch.

Important dates:

Sl.No	Details	Date
1.	Last Date of issue of topics for Mini Project	15 th May 2023
2.	Dates for Appeal/challenge (on or before)	20 th May 2023
3.	Last date for the submission of the Project report (OR) If it is a poster presentation, the posters should be submitted in person by the batch of students.	7 th July 2023
4.	Demo Presentation date [as per schedule shared]	7 th July 2023
5.	Date of announcement of evaluation details for demo/oral presentation/ poster presentation	10 th July 2023

Note: Assignments marks will not be given if assignments submitted on later dates and failed to present a seminar/demo.

Guidelines for Project Report "
The project report should contain the following:

- Cover page
- Certificate
- Contents
- Abstract
- Introduction
- Objectives
- Methodology/Details of Project
- Results
- Conclusion
- References

Rubrics/Evaluation Strategy

Sl. No	Criteria	Marks
1.	Results	10
2.	Quality of Team Demo	5
3.	Quality of Project Report	5
4.	Usefulness to society/environment	5
5.	Individual Contribution to Project	5
6.	Individual Contribution to Report	5
7.	Tool Learning	5
	Total	40 (Scale the Marks to 10)

6. Evaluate each Batch project report, Functional Demo and assign marks for each student
7. Document the Mini-project Reports, Photos of Functional Demos, and Split-up of Marks
8. Prepare a Pedagogy Report and submit to Department.

pld



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

Dept. of Electronics & Communication Engg.

FORMAT & RUBRIC

2022-23

Course Name: Digital Communication

Course Code: 18EC61

Content Beyond Syllabus

ASSIGNMENT TYPE: PRESENTATION

Objective: Title of the topic to be Presented [Oral or Poster presentation]
[Topic allotted must be from the course]

Instruction to be followed:

1. The topic allotted or assigned must be from the course
2. The work given must be from Apply level onwards
3. This will address PO9, PO10, PO12
4. Process to assign and evaluate the assignments steps.

- Divide the students into batches (Max five)
- Officially announce the batches & assignment topic for each batch. The topic selected must be from course.

Batch No.	Students in the batch		Assignment topic
	Roll No.	Name	
1			

Important dates:

Sl.No	Details	Date
1.	Date of issue of topics for presentation	16/5/2023
2.	Last date for the submission of the presentation report OR If it is a poster presentation, the posters should be submitted in person by the batch of students.	10/6/2023
3	Presentation date [as per schedule shared]	11/6/2023 to 16/6/23
4	Dates for Appeal/challenge(on or before)	20/5/2023

Note: Assignments marks will not be given if assignments submitted on later dates and failed to present a seminar.

Rubrics: Oral Presentation

Note: Plagiarism ($\leq 30\%$) is a mandatory criteria on to be met

Sl.No	Criteria
1.	Quality of the power point/poster
2.	Technical content
3.	Structuring of the speech
4.	Clarity of speech with respect to the topic
5.	Voice modulation
6.	Body language

Strategy to award marks for presentations based on the criteria

Sl. No.	Criteria	Marks for assignments
1.	Assignment not submitted in time or assignment submitted in time but not presented	No marks
2.	Assignment submitted in time, presented and any 04 or more criteria not met	2mark
3.	Assignment submitted in time, presented and any 03 or more criteria not met	4marks
4.	Assignment submitted in time, presented and any 02 or more criteria not met	6marks
5.	Assignment submitted in time, presented and any 01 or more criteria not met	8marks
6.	Assignment submitted in time, presented and all criteria are met	10marks



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

Dept. of Electronics & Communication Engg.

FORMAT & RUBRIC

2022-23

Course Name :Digital Communication

Course Code : 18EC61

Assignment-3

ASSIGNMENT TYPE: PRESENTATION

Objective: Title of the topic to be Presented [Oral or Poster presentation]

[Topic allotted must be from the course]

Instruction to be followed:

1. The topic allotted or assigned must be from the course
2. The work given must be from Apply level onwards
3. This will address **PO9, PO10, PO12**
4. Process to assign and evaluate the assignments steps.
 - Divide the students into batches (Max five)
 - Officially announce the batches & assignment topic for each batch. The topic selected must be from course.

Batch No.	Students in the batch		Assignment topic
	Roll No.	Name	
1			

- Criteria for evaluation & Instruction for students

Sl. No.	Criteria	Details
1.	Batch number, Name & USN of the students in the batch	
2.	Statement on individual's contribution	
3.	Number of MS power point slides	Not more than 15 slides
4.	Number of posters	Student must be made to design poster as per the topic assigned from the course.
5.	Check for plagiarism	
6.	Presentation time	15 minutes only

Important dates:

Sl.No	Details	Date
1.	Date of issue of topics for presentation	16/5/2023
2.	Last date for the submission of the presentation report OR If it is a poster presentation, the posters should be submitted in person by the batch of students.	10/6/2023
3	Presentation date [as per schedule shared]	13/6/2023 - 14/6/2023
4	Date of announcement of evaluation details for oral presentation/ poster presentation	27/6/2023
		Group email id:
5	Dates for Appeal/challenge(on or before)	20/5/2023
<p>Note: Assignments marks will not be given if assignments submitted on later dates and failed to present a seminar.</p>		

Sl. No.	Details	Date
1.	Last date/time for submission of presentations(assignment)	Date:
		Time: Before (sharp)
2.	Presentation days	
3.	Date on or before which the Power Point-electronic format (Only electronic format is accepted) of the assignment should reach the specified email id: If it is a poster presentation, the posters should be submitted in person by the batch of students on or before the mentioned date.	Date:
		Email id:
4.	Date of announcement of results on the notice board and sent to your group email	Date:
		Group email id:
5.	Dates for Appeal/challenge (on or before)	
<p>Note: Marks will not be given, if reports are not submitted as per schedule and Failed to make a presentation</p>		

Rubrics: Oral Presentation

Note: Plagiarism($\leq 30\%$) is a mandatory criteria on to be met

Sl.No	Criteria
1.	Quality of the power point/poster
2.	Technical content
3.	Structuring of the speech
4.	Clarity of speech with respect to the topic
5.	Voice modulation
6.	Body language

Strategy to award marks for presentations based on the criteria

Sl. No.	Criteria	Marks for assignments
1.	Assignment not submitted in time or assignment submitted in time but not presented	No marks
2.	Assignment submitted in time, presented and any 04 or more criteria not met	2mark
3.	Assignment submitted in time, presented and any 03 or more criteria not met	4marks
4.	Assignment submitted in time, presented and any 02 or more criteria not met	6marks
5.	Assignment submitted in time, presented and any 01 or more criteria not met	8marks
6.	Assignment submitted in time, presented and all criteria are met	10marks

8th Semester

Semester/ Section	Course Name	Content beyond syllabus activity conducted	POs Covered	Faculty
VIII A &B	Wireless and Cellular Communication 18EC81	Poster Presentation	5 9 10 11 12	Dr. P N Sudha Mrs. Sangeetha V
VIII A &B	Radar Engineering 18EC823	Poster Presentation	9 10 12	Mr. Saleem S Tevaramani Mrs. Pooja S



CONTENT BEYOND SYLLABUS

Academic Year	2022-23 (Even)
Name of the Faculty	Saleem S Tevaramani
Course Name /Code	RADAR ENGINEERING/18EC823
Semester/Section	VIII/A
Activity Name	Poster Presentation
Topic Covered	All Modules
Date	20/4/2023 to 13/5/23
No. of Participants	62
Relevant PO's	9,10,11,12

Proofs (Photographs/Videos/Reports/Charts/Models)

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95A, Rajahmundry Road, Bangalore - 560109

DELAY LINE CANCELLERS

Delay line canceller is a filter, which eliminates the DC components of echo signals received from stationary targets. This means, it allows the AC components of echo signals received from non-stationary targets, i.e., moving targets.

Types of Delay Line Cancellers

Delay line cancellers can be classified into the following two types based on the number of delay lines that are present in it.

Delay Line Cancellers

Single Delay Line Cancellor

The combination of a delay line and a subtractor is known as delay line canceller. It is also called single delay line canceller.

Double Delay Line Cancellor

We know that a single delay line canceller consists of a delay line and a subtractor. If two such delay line cancellers are cascaded together, then that combination is called double delay line canceller. The block diagram of double delay line canceller is shown in the following figure above.

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BANGALORE - 560109
RADAR ENGINEERING-18EC823 2022-23

"RADAR DISPLAYS"

RADAR stands for "radio Detection and Ranging." It is a technology used to detect and locate objects using radiowaves. RADAR works by sending out a signal or pulse of radio waves, which bounce off the object and return to the RADAR system.

An electronic instrument, which is used for displaying the data visually is known as display. So, the electronic instrument which displays the information about Radar's target visually is known as a Radar display.

TYPES OF RADAR DISPLAYS:

The most common types of displays, called scopes, are the A-scope, the RANGE-HEIGHT INDICATOR (RHI) SCOPE, PLAN POSITION INDICATOR (PPI) SCOPE, B Scope

BLIND SPEEDS

The magnitude of the radial component of velocity of an object, i.e., a target, relative to a radar site, that cannot be measured by the radar unit. Note: Radar blind speeds occur because of the relationship between the transmitted pulse repetition rate (PRF) and the received pulse repetition rate.

Blind Speed = $\frac{\lambda}{2T_r}$

T_r = Pulse repetition time
 λ = Wavelength of EM Wave

Rubrics: Oral Presentation

Note: Plagiarism ($\leq 30\%$) is a mandatory criterion to be met

Sl.No	Criteria
1.	Quality of the PowerPoint/poster
2.	Technical content
3.	Structuring of the speech
4.	Clarity of speech with respect to the topic
5.	Voice modulation
6.	Body language

Strategy to award marks for presentations based on the criteria

Sl. No.	Criteria	Marks for assignments
1.	Assignment not submitted in time or assignment submitted in time but not presented	No marks
2.	Assignment submitted in time presented and any 04 or more criteria not met	1mark
3.	Assignment submitted in time presented and any 03 or more criteria not met	2marks
4.	Assignment submitted in time presented and any 02 or more criteria not met	3marks
5.	Assignment submitted in time presented and any 01 or more criteria not met	4marks
6.	Assignment submitted in time, presented and all criteria are met	5marks



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109
Department of Electronics & Communication Engineering
2022-23

Course Name: Radar Engineering
Semester/sec: VIII A

Course Code: 18EC823

Content Beyond Syllabus

ASSIGNMENT TYPE: PRESENTATION

Objective: Title of the topic to be Presented [Oral or Poster presentation]

Marks: 10

Batch No.	Students in the batch		Assignment topic	ORAL/ POSTER
	USN	Name		
1	1KS19EC007	Amruta	Electronically Steered Phased array antennas	Poster
	1KS19EC009	Anitha S		
	1KS19EC030	Gowri		
	1KS19EC053	Nisarga		
2	1KS19EC022	Davino Joseph	Clutter Attenuation	Poster
	1KS19EC014	Bhavana		
	1KS19EC018	Rajashekar		
	1KS19EC032	Harshita		
3	1KS19EC002	Abhishek	Radar Display	Poster
	1KS19EC016	Chandan Raj		
	1KS19EC036	Jayanth M B		
	1KS19EC038	Karthik K		
4	1KS19EC005	AkshayKumar D	Radar Receiver	Poster
	1KS19EC039	Kashyap P		
	1KS19EC041	Kruthik S		
	1KS19EC048	Mohit kumar G		
5	1KS19EC003	Aishwarya B K	MTI and MTD	Poster
	1KS19EC006	Akshitha		
	1KS19EC037	Manogna		
	1KS19EC044	M Lokeshwari		
6	1KS19EC054	Nithin D	Super heterodyne Receiver	Poster
	1KS19EC055	Pavan Kumar		
	1KS19EC062	Praveen Kumar		
	1KS19EC063	Preetham G H		
7	1KS19EC008	Amulya R	Radar Antenna	Poster
	1KS19EC028	Gayathri R Warrior		
	1KS19EC035	Jagruthi Pai		
	1KS19EC045	Manu N Kandra		
8	1KS19EC056	P Mounika	Amplitude comparison Monopulse	Poster

	1KS19EC061	Prashant S K		
	1KS19EC065	Radha krishna		
	1KS19EC066	Rajalakshmi S		
9	1KS19EC012	Ashritha R	Tracking radar	Poster
	1KS19EC010	Anjali Y J		
	1KS19EC023	Dhanya Sukanth B K		
	1KS19EC025	Disha Shivani		
10	1KS19EC001	Abhilash A S	MTI and Pulse Doppler radar	Poster
	1KS19EC031	Harsha		
	1KS19EC042	Lakshman Kumar		
	1KS19EC059	Prakash C		
11	1KS19EC029	Sai Sidharth	Doppler frequency Shift	Poster
	1KS19EC033	Hemanth R Patil		
	1KS19EC047	Mohammad Rakheeb		
	1KS19EC058	Pradeep G		
12	1KS19EC017	Chandana L	Delay line canceller	Poster
	1KS19EC027	Gayathri P K		
	1KS19EC050	Monisha		
	1KS19EC051	N Anila		
13	1KS19EC020	Nayan D	Radar introduction	Poster
	1KS19EC021	Danesh Raju		
	1KS19EC024	Dheemant K N		
	1KS19EC064	Priyanka		
14	1KS19EC004	Aishwarya M G	Conical scan	Poster
	1KS19EC011	Archana Yadav		
	1KS19EC046	Meghana H P		
	1KS19EC057	Pooja S		
15	1KS19EC015	Chaithra P	Tracking methods	Poster
	1KS19EC040	Krupa		
	1KS19EC043	Likitha H		
	1KS19EC049	Monika V R		


SSTI
Course In-charge

Pue
HOD







CONTENT BEYOND SYLLABUS

Academic Year	2022-23 (Even)
Name of the Faculty	Dr. Pooja S
Course Name /Code	Radar Engineering/18EC823
Semester/Section	VIII/B
Activity Name	Poster Presentations
Topic Covered	All Modules
Date	20/03/2023 to 10/04/2023
No. of Participants	43
Relevant PO's	9,10,12

 **K S INSTITUTE OF TECHNOLOGY**
#14, RAGHUVANAHALLI, KANAKAPURA ROAD, BENGALURU - 560109
(AFFILIATED TO VTU, BELAGAVI & APPROVED BY AICTE, NEW DELHI, ACCREDITED BY NAAC & IEI)

APPLICATIONS OF RADAR

RADAR, WHICH STANDS FOR RADIO DETECTION AND RANGING, IS A TECHNOLOGY THAT USES RADIO WAVES TO DETECT, LOCATE, AND TRACK OBJECTS IN THEIR SURROUNDING ENVIRONMENT. HERE ARE SOME OF THE APPLICATIONS OF RADAR:

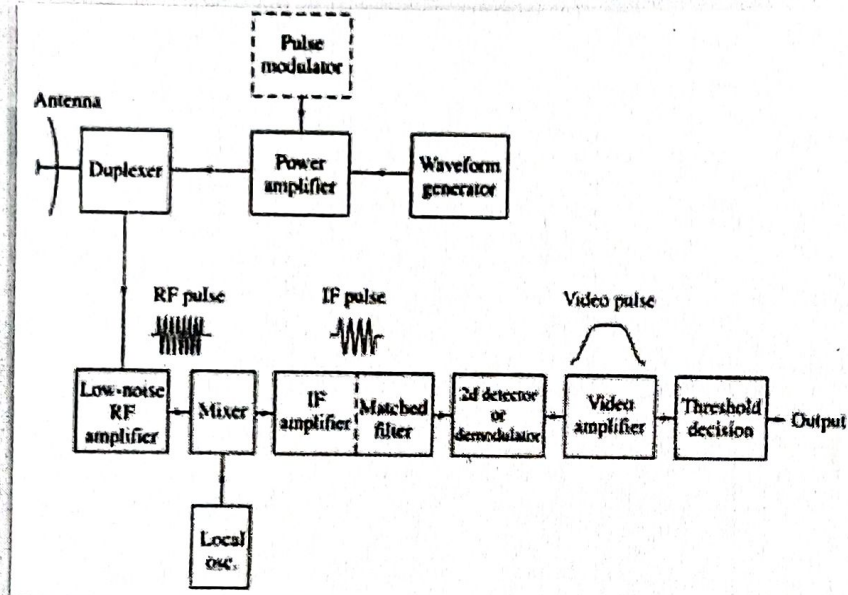
MILITARY  FOR DETECTING AND TRACKING ENEMY AIRCRAFT, SHIPS, AND MISSILES, IT IS ALSO USED FOR NAVIGATION, TARGET IDENTIFICATION, AND RECONNAISSANCE	AVIATION  FOR AIR TRAFFIC CONTROL, WEATHER DETECTION, AND COLLISION AVOIDANCE, IT HELPS PILOTS TO NAVIGATE THROUGH FOG, RAIN, AND OTHER ADVERSE WEATHER CONDITIONS.	AUTOMOTIVE  USED IN ADAS TO HELP DRIVERS AVOID COLLISIONS, ESPECIALLY IN LOW VISIBILITY CONDITIONS. IT CAN DETECT OBJECTS SUCH AS OTHER VEHICLES, PEDESTRIANS, AND OBSTACLES	MARITIME  USED FOR NAVIGATION, COLLISION AVOIDANCE, AND SEARCH AND RESCUE OPERATIONS AT SEA. IT CAN DETECT AND TRACK OTHER VESSELS, ICEBERGS, AND EVEN WHALES
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K S INSTITUTE OF TECHNOLOGY RADAR ENGINEERING

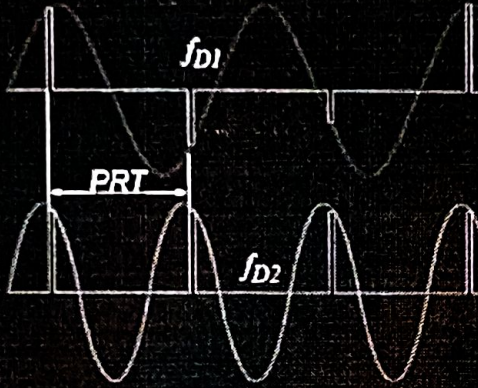
RADAR BLOCK DIAGRAM



1. **Antenna:** The antenna is the first element of a radar system. It transmits the radio waves and receives the echoes from the target.
2. **Transmitter:** The transmitter generates the high power radio frequency signal that is fed to the antenna for transmission.
3. **Receiver:** The receiver amplifies and processes the weak echo signal that is received by the antenna.
4. **Signal Processor:** The signal processor extracts information from the received signals and performs various signal processing functions such as filtering, detection, tracking, and classification.
5. **Display:** The processed information is displayed on a monitor or other output device. This provides the radar operator with the necessary information to make decisions based on the detected targets.
6. **Data Processing and Analysis:** The data processing and analysis function is responsible for analyzing the data collected by the radar system. This includes identifying targets, tracking their movements, and determining their characteristics.
7. **Control and Interface:** The control and interface function provides the interface between the radar system and the operator. It allows the operator to control the system and provides feedback to the operator on the system status and performance.

BLIND SPEED

The blind speed is a radial speed of the airplane at which the phase shifting of the echo-signal has the value $\pm n \cdot 360^\circ$ between two pulse periods. With blind speeds moving targets are suppressed by a MTI system like ground clutters.



Moving Target Indicator Radar (MTI)

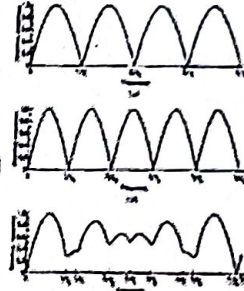
Multiple PRFs: Example

Two PRFs

Ratio 4/5

First blind speed is at

$5/T_1$ or $4/T_2$



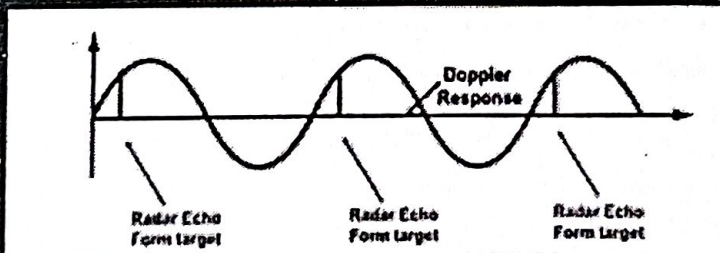
$$V_{\text{blind}} = \lambda / 2 \cdot T_s$$

where:

v_{blind} = one of the blind speeds

λ = wavelength of the transmitted pulse

T_s = pulse repetition time (PRT)



The blind speed is a radial speed of the airplane at which the phase shifting of the echo-signal has the value $\pm n \cdot 360^\circ$ between two pulse periods. With blind speeds moving targets are suppressed by a MTI system like ground clutters.

Simple measures against the appearance of blind speeds are:

- Using of the coherence channel only if it is necessary
- constantly changing of the TX- frequency (Frequency-Diversity)
- constantly changing of the pulse repetition time (Staggered PRT)



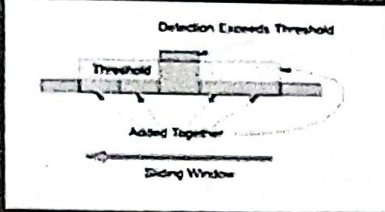
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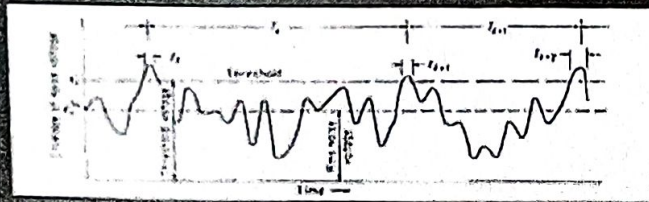
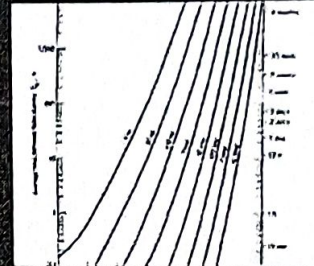
(AFFILIATED TO VTU, BELAGAVI & APPROVED BY AICTE, NEW DELHI, ACCREDITED BY NAAC & IEI)

PROBABILITY OF FALSE ALARM AND DETECTION

A FALSE ALARM IS "AN ERRONEOUS RADAR TARGET DETECTION DECISION CAUSED BY NOISE OR OTHER INTERFERING SIGNALS EXCEEDING THE DETECTION THRESHOLD". IN GENERAL, IT IS AN INDICATION OF THE PRESENCE OF RADAR TARGET WHEN THERE IS NO VALID AIM.



THE MAIN AIM IS TO DETERMINE THE POWER THRESHOLD ABOVE WHICH ANY RETURN CAN BE CONSIDERED TO PROBABLY ORIGINATE FROM A TARGET AS OPPOSED TO ONE OF THE SPURIOUS SOURCES. IF THIS THRESHOLD IS TOO LOW, MORE REAL TARGETS WILL BE DETECTED.



THE FALSE-ALARM PROBABILITIES OF PRACTICAL RADARS ARE QUITE SMALL. THE REASON FOR THIS IS THAT THE FALSE-ALARM PROBABILITY IS THE PROBABILITY THAT A NOISE PULSE WILL CROSS THE THRESHOLD DURING AN INTERVAL OF TIME APPROXIMATELY EQUAL TO THE RECIPROCAL OF THE BANDWIDTH.

Criteria for Evaluation & Instruction for students

Sl No	Criteria	Details
1	Oral Presentation Time	15 Mins
2	Poster	Each group must design one A3 poster as per the given topic

Important Dates:

Sl No.	Details	Date
1.	Date of issue of topics	20/03/2023
2.	Last date for poster submission	10/04/2023
3.	Presentation Dates	10/04/2023 to 24/04/2023
4.	Date of announcement of evaluation details	08/05/2023

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE 560109
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



RADAR ENGINEERING (18EC823)

Assignment-3: POSTER PRESENTATION DETAILS(2022-2023)

K S I T

Sem: VIII Sec: B

Batc	USN	NAME	Title
1	1KS19EC084	Shreyas V Bharadwaj	Maximum Unambiguous Range, Radar Waveforms
	1KS19EC087	Srinivas S	
	1KS19EC089	SriRam	
	1KS19EC107	Vishnuraata	
2	1KS19EC068	Rangaswany U	Principle of Operation of Radar
	1KS19EC070	S K Bharatesh	
	1KS19EC082	Shreyas B Aradhya	
	1KS19EC099	Tushar R Vasishtha	
3	1KS19EC083	Shreyas Gowda	Radar Block Diagram
	1KS19EC106	Vishal Sanjay Raju	
	1KS19EC104	Vikas S	
4	1KS19EC067	RAMYASREE R	Radar Frequencies
	1KS19EC101	VANDANA G	
5	1KS19EC071	SABARISH I J	Applications of Radar
	1KS19EC075	SAMIKSHA	
	1KS19EC077	SATHVIK U M	
	1KS19EC094	SWAGATH AITHAL P G	
6	1KS19EC076	SANTOSH HEGDE	Probability of False Alarm, False Alarm Time, Probability of Detection
	1KS19EC090	SUHAS M GOWDA	
	1KS19EC096	T N L RUTHVIK	
7	1KS19EC079	Shashank Kashyap	Radar Cross Section of Targets- Sphere, cone sphere
	1KS19EC081	Shreyams D K	
	1KS19EC085	Shubham Kumar Singh A	
	1KS19EC092	Sumukha Vasista	
8	1KS20EC401	RANJANA	CW & Pulse Doppler Radar
	1KS20EC402	SINDHU	
	1KS19EC100	VAISHNAVI K	
9	1KS19EC074	Sai Priya T S	Delay Line Cancellor
	1KS19EC097	Tejashwini P V	
	1KS18EC089	Sneha N	

10	1KS19EC103	Vignesh Muthaiah R	Clutter Attenuation
	1KS19EC105	Vinuth S Reddy	
	1KS19EC108	Yashaswini N	
	1KS20EC400	Vivek Kumar	
11	1KS19EC078	Shamitha Bijoor	Digital MTI Processing
	1KS19EC086	Sinchana MN	
	1KS19EC093	Sushmitha S	
	1KS19EC098	Theerthana SR	
12	1KS19EC069	Rohan K.R	Blind Speeds
	1KS19EC073	Sahana S	
	1KS19EC088	Srinivasan M	
13	1KS19EC095	SWATHI U	Tracking Radar
	1KS19EC102	VANDANA S	
14	1KS18TE005	ANKITHA . N	Monopulse Tracking
	1KS19ET003	LITCHITHA GOWDA	
	1KS19ET005	MRUTHYUNJAYA .G	
	1KS18ET012	VAISHNAVI .S	
15	1KS19ET002	CHAITRA.C	Radar Antenna
	1KS19ET009	ROHIT KUMAR	
	1KS19ET010	SHREYAS C R	
	1KS19ETO11	SHWETHA.K	
16	1KS19ET004	MAHADEV A C	Radar Receiver
	1KS19ET006	NELBIN N	
	1KS19ET007	NIRANJAN S RAO	
	1KS19ET008	RISHI KUMAR S	


Signature of Course In charge


Signature of HOD ECE



K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

Dept. of Electronics & Communication Engg. FORMAT & RUBRIC

CONTENT BEYOND SYLLABUS: POSTER PRESENTATION-18EC81-VIII-A&B

Objective: To identify the application of Wireless and Cellular communication and give the Poster presentation report.

Instruction to be followed:


1. The topic allotted or assigned must be from the course
2. The work given must be from Apply level onwards
3. This will address PO5,PO9,PO10,PO11,PO12

Batch	USN	NAME	Title
T-1	1KS19EC084	Shreyas V Bharadwaj	Wireless in unmanned aerial vehicles
	1KS19EC087	Srinivas S	
	1KS19EC089	SriRam	
	1KS19EC107	Vishnuraatayadhunandhan	
T-2	1KS19EC068	Rangaswamy U	Role of wireless communication in Health care systems
	1KS19EC070	S K Bharatesh	
	1KS19EC082	Shreyas B Aradhya	
	1KS19EC099	Tushar R Vasishta	
T-3	1KS19EC065	Radhakrishna L	Comparison of 4G & 5G wireless Technology
	1KS19EC066	Rajalakshmi S	
	1KS19EC083	Shreyas Gowda	
T-4	1KS19EC106	Vishal Sanjay Raju	Evolution in Wireless communication
	1KS19EC104	Vikas S	
T-5	1KS19EC002	Abhishek Chandresh	Wireless LAN
	1KS19EC016	Chandan Raj Y	
	1KS19EC036	Jayanth M B	
	1KS19EC038	Karthik K	
T-6	1KS19EC004	AISHWARYA M G	Future wireless networks
	1KS19EC011	ARCHANA YADAV M	
	1KS19EC046	MEGHANA H P	
	1KS19EC057	POOJA S P	
T-7	1KS19EC015	CHAITRA P	Wonders of Wireless
	1KS19EC040	KRUPA A	
	1KS19EC043	LIKITHA H	
	1KS19EC049	MONIKA V ARYA	
T-8	1KS19EC067	RAMYASREE R	Role of wireless communication in Health care systems
	1KS19EC101	VANDANA G	
T-9	1KS19EC071	SABARISH I J	Comparison of 4G & 5G wireless Technology
	1KS19EC075	SAMIKSHA	

	1KS19EC077	SATHVIK U M	
	1KS19EC094	SWAGATH AITHAL P G	
T-10	1KS19EC001	Abhilash A S	5G Advantages & disadvantages
	1KS19EC033	Hemanth R Patil	
	1KS19EC042	Lakshman Kumara	
	1KS19EC047	Mohammad Rakheeb M R	
T-11	1KS19EC014	Bhavana s	Wireless in unmanned aerial vehicles
	1KS19EC018	ChennreddyRajasekhar	
	1KS19EC022	Davino Joseph	
	1KS19EC032	Harshitha BY	
T-12	1KS19EC061	PRASHANTH S K	Cognitive Computing & wireless communication on the edge of Health care
	1KS19EC076	SANTOSH HEGDE	
	1KS19EC090	SUHAS M GOWDA	
	1KS19EC096	T N L RUTHVIK	
T-13	1KS19EC079	Shashank Kashyap	Evolution in Wireless communication
	1KS19EC081	Shreyams D K	
	1KS19EC085	Shubham Kumar Singh A	
	1KS19EC092	SumukhaVasista	
T-14	1KS19EC008	Amulya. R	Wireless LAN
	1KS19EC028	Gayathri.R.Warrier	
	1KS19EC035	Jagruti.Pai	
	1KS19EC045	Manu.N.Kandra	
T-15	1KS19EC009	ANITHA S	Future wireless networks
	1KS19EC037	MANOGNA K M	
	1KS20EC401	RANJANA	
	1KS20EC402	SINDHU	
T-16	1KS19EC007	AMRUTHA	Wonders of Wireless
	1KS19EC030	GOWRI	
	1KS19EC052	NIDHI S	
	1KS19EC100	VAISHNAVI K	
T-17	1KS19EC053	Nisarga.k	Wireless RF Technology for the IoT
	1KS19EC056	PokuriMounika	
	1KS19EC074	Sai Priya T S	
	1KS19EC097	Tejashwini P V	
T-18	1KS19EC003	AISHWARYA B K	Wireless in unmanned aerial vehicles
	1KS19EC006	AKSHITHA	
	1KS19EC010	ANJALI Y J	
	1KS19EC044	LOKESHWARI M	
T-19	1KS19EC019	ChiranthanaYogananda K	Wireless charging vs.Wired charging of Electronic Devices
	1KS19EC029	Sai Siddharth	
	1KS19EC031	Harsha R	
	1KS19EC048	Mohith Kumar G	
T-20	1KS19EC005	Akshay Kumar D	Wireless RF Technology for the IoT
	1KS19EC039	Kashyap P	

	1KS19EC041	Kruthik S	
	1KS18EC089	Sneha N	
T-21	1KS19EC103	VigneshMuthaiah R	heterogeneous wireless communication world
	1KS19EC105	Vinuth S Reddy	
	1KS19EC108	Yashaswini N	
	1KS20EC400	Vivek Kumar	
T-22	1KS19EC078	ShamithaBijoor	Comparison of 4G & 5G wireless Technology
	1KS19EC086	Sinchana MN	
	1KS19EC093	Sushmitha S	
	1KS19EC098	Theerthana SR	
T-23	1KS19EC020	D Nayan	Wireless in unmanned aerial vehicles
	1KS19EC058	Pradeep Gaded	
	1KS19EC059	Prakash Chegore	
	1KS19EC069	Rohan K R	
T-24	1KS19EC017	Chandana L	Evolution in Wireless communication
	1KS19EC021	Danesh Raju V	
	1KS19EC024	Dheemanth KN	
	1KS19EC064	Priyanka K	
T-25	1KS19EC012	Ashritha R	Future wireless networks
	1KS19EC023	DhanyaSukanth B	
	1KS19EC025	DishaShivani	
	1KS19EC073	Sahana S	
T-26	1KS19EC054	NITHIN D	Wonders of Wireless
	1KS19EC055	PAVAN KUMAR G R	
	1KS19EC062	PRAVEEN KUMAR N	
	1KS19EC063	PREETHAM G H	
T-27	1KS19EC027	Gayathri P K	Heterogeneous wireless communication world
	1KS19EC050	Monisha B K	
	1KS19EC051	Anila N	
	1KS19EC088	Srinivasan M	
T-28	1KS19EC095	SWATHI U	Role of wireless communication in Health care systems
	1KS19EC102	VANDANA S	


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