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

Details of Content beyond syllabus Activities-2024-25 (ODD)

3rd Semester

Semester/ Section	Course Name	Content beyond syllabus activity conducted	POs Covered	Faculty	Number of Activity
III/A&B	AV Mathematics-III for EC Engineering BMATEC301	Quiz	1,2,5,9,12	Mrs. Kusuma V Mrs. Rekha R	130
III/A&B	Digital System Design Using Verilog BEC302	Code Debugging	4,5,10	Mr. Santhosh Kumar B R Mrs. Kavya B M	138
III/A&B	Electronic Principles and Circuits BEC303	Lab activity	9,10,12	Dr. Devika B	145
III/A&B	Network Analysis BEC304	Poster Presentation	1,2,3,5,7,9, 10,11,12	Dr. P.N Sudha	32
III/A&B	Computer Organization and Architecture (Elective)BEC306C	Poster Presentation	9,10,12	Dr. Anita. P Mrs. PriyadharshiniV	35

K S INSTITUTE OF TECHNOLOGY, BANGALORE-560109

DEPARTMENT OF MATHEMATICS

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-2025
Name of the Faculty	Kusuma V
Course Name /Code	AV Mathematics-III for EC Engineering / BMATEC301
Semester/Section	III/A
Activity Name	Quiz
Topic Covered	AV Mathematics-III for EC Engineering (All Modules)
Date	04/12/2024
No. of Participants	64
Objectives/Goals	• To improve self learning of students • To Promote independent learning by offering self-assessment tools.
ICT Used	Google form
Appropriate Method/Instructional materials/Exam Questions • Initially informed to students to prepare for Quiz. • Later students studied the applications of the topics. • After that link was shared to the students to attend the quiz.	
Relevant PO's	1,2,5,9 and 12
Significance of Results/Outcomes	• Tackling different types of questions develop adaptability and flexibility in approaching problems.
Reflective Critique	Precise answers in quizzes encourage focus and careful reading of questions.

Proof : Marks sheet attached.

Signature of Course In charge

Signature of HOD

K S INSTITUTE OF TECHNOLOGY, BANGALORE-560109

DEPARTMENT OF MATHEMATICS

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-2025
Name of the Faculty	Rekha R
Course Name /Code	AV Mathematics-III for EC Engineering / BMATEC301
Semester/Section	III/B
Activity Name	Quiz
Topic Covered	AV Mathematics-III for EC Engineering (All Modules)
Date	04/12/2024
No. of Participants	66
Objectives/Goals	• To improve self learning of students • To Promote independent learning by offering self-assessment tools.
ICT Used	Google forms
Appropriate Method/Instructional materials/Exam Questions • Initially informed to students to prepare for Quiz. • Later students studied the applications of the topics. • After that link was shared to the students to attend the quiz.	
Relevant PO's	1,2,5,9 and 12
Significance of Results/Outcomes	• Tackling different types of questions develop adaptability and flexibility in approaching problems.
Reflective Critique	Precise answers in quizzes encourage focus and careful reading of questions.

Proof : Marks sheet attached.

Rekh

Signature of Course In charge

Signature of HOD

Email Address	Score	Name	USN	Sectic	Column 6	which of the	Fourier series applie	which or	Column	Column	Column	Column	Column
adithyabhaskar01(	10 / 10	Adithya B	1KS23EC013	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
dharanitk2305@g	10 / 10	Dharani Priya T K	1KS23EC029	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
navneethkg07@g	10 / 10	Navaneeth	1ks23rc069	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
maheshnaiks1104	10 / 10	Mahesh Naik S	1KS23EC057	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
pranathiprabhaka	10 / 10	Pranathi	1ks23ec078	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
dchandragowda1(	9 / 10	D chandragowda	Diploma leteral e	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
nishankn499@gm	9 / 10	Nishank BC	Nishank bc	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
vaibhavmuddapati	10 / 10	Vaibhav	1ks23eco65	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
g.puneeth2002@g	10 / 10	Puneeth.G	Lateral entry	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
venkatashiva.n79(	10 / 10	amilineni Bharath.	1ks23ec008	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
kongaradileepcho	9 / 10	K.DILEEP KUMAF	1KS23EC040	A	Option 3	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 1
sahithya742@gm	5 / 10	Sahithya	1KS23EC089	B	Option 3	b and d only	discrete and periodi	Option 4	Option 3	Option 2	Option 4	x and y a	0.96 Option 2
divgowda586@gn	9 / 10	DIVYASHREE.S	1KS23ECO31	A	Option 3	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 1
daneshrazak10@(	9 / 10	Danesh Razak	1ks23Ec026	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
shivakumarb.r197	9 / 10	Bs pruthvi	Lateral entry	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
srujanacsrujan@g	9 / 10	Srujan AC	Srujan AC	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
hemanthlmofficial(	9 / 10	Hemanth L M	Lateral Entry	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
jayasurryam7@gn	9 / 10	M Jayasurrya	1KS22EC056	B	Option 3	b and d only	continuous and aper	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
shivakumargulaga	3 / 10	Shivakumar S Gul	1KS23EC098	B	Option 1	a and c only	Continuous and peri	Option 2	Option 1	Option 1	Option 3	x and y a	0.81 Option 1
sumaiya8792@gn	8 / 10	Syeda Sumaiya Fa	1KS23EC112	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88 Option 1
thrishargowda41@	3 / 10	Thrishar	1ks23ec120	B	Option 1	b and d only	discrete and periodi	Option 4	Option 2	Option 2	Option 1	x and y a	0.96 Option 2
hosurvijayendra@	8 / 10	Vijayendra hosur	1ks23ec123	B	Option 3	b and d only	Continuous and peri	Option 1	Option 1	Option 4	Option 4	x and y a	0.88 Option 1
hariharakumaran2	10 / 10	R Hari Hara Kuma	1KS23EC084	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
tanipatner2020@g	1 / 10	Tania	1ks23ec113	B	Option 2	c and d only	discrete and a perio	Option 1	None of	Option 2	Option 1	cannot pi	1 Option 3
thanishqdgaikwad	8 / 10	Thanishq D Gaikw	1S23EC118	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88 Option 1
sarasija505@gma	8 / 10	Sarasija	1KS23ECO86	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88 Option 1
vijethshanbhag20	6 / 10	Vijeth shanbhag	1KS23EC124	B	Option 2	b and d only	discrete and a perio	Option 2	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
rinaakash656@gn	5 / 10	..	..	A	Option 2	b and d only	continuous and aper	Option 2	Option 1	Option 2	Option 2	x and y a	0.88 Option 1
ashwinkumarnsra	3 / 10	...	...	A	Option 1	a and c only	discrete and a perio	Option 1	Option 1	Option 1	Option 1	x and y a	0.88 Option 1
nagudarshan9@g	1 / 10	NAGADARSHAN '	1KS23EC066	A	Option 1	a and c only	discrete and periodi	Option 3	Option 2	Option 4	Option 2	x and y a	1 Option 2
kavyapattipati200	8 / 10	Pathipati Kavya Sh	1KS23EC074	B	Option 3	b and d only	Continuous and peri	Option 4	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
banupriya981419(	10 / 10	BhanuPriyaDN	1KS23EC016	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
shirisha.0802@gn	10 / 10	SHIRISHA S	1KS23EC097	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
rdjyothi5@gmail.c	5 / 10	Praneeth N	1KS23EC079	B	Option 4	b and d only	Continuous and peri	Option 4	Option 3	Option 2	Option 4	x and y a	0.96 Option 3
shivatmajahampi@	9 / 10	Shivatmaja	1KS23EC099	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 2
shettylikith21@gn	9 / 10	Likith	1s23ec051	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 2
10a25sanjana@g	10 / 10	Sanjana MS	1KS23EC091	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1

vayustuthi@gmail	10 / 10	STUTHI SRINATH	1KS23EC108	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
shreyashetty504@	10 / 10	Shreya Shetty	1KS23EC102	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
ssushmitha002@(	10 / 10	Sushmitha S	1KS23EC111	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
shraddhaen564@	9 / 10	Shraddha EN	1KS23EC100	B	Option 2	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
sharanya.sm10st	10 / 10	Sharanya.sm	1KS23EC096	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
abhishek.bng028(	10 / 10	Abhishek S	1KS23EC003	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
dhanushgowdak7	10 / 10	Dhanush Gowda k	1KS23EC028	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
chanduvenu837@	9 / 10	Chandu M	1KS23EC022	A	Option 3	b and d only	Continuous and peri	Option 4	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
pooja.chavan215(	10 / 10	Pooja Chavan	1KS23EC075	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
sukanyamanjunatl	10 / 10	SUKANYA D M	1KS23EC110	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
nikithatg16@gmai	10 / 10	Nikitha T G	1KS23EC070	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
dhemantharaja20(	3 / 10	D Hemantharaja	Diploma lateral e	B	Option 3	b and d only	continuous and aper	Option 3	Option 3	Option 1	Option 2	cannot pi	0.96	Option 3
gpoojitha78@gma	10 / 10	G.Poojitha	1KS23EC033	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
disharamesh2020	10 / 10	Disha R	1KS23EC030	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
ganeshshakthi65(	10 / 10	Shakthi ganesh HI	1KS23EC094	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
gvinod8088@gma	9 / 10	G VINOD KUMAR	1KS23EC032	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88	Option 1
ssujansujan28@g	10 / 10	Sujan	1ks23ec087	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
rakshith0125@gr	10 / 10	Rakshith.S	1ks23ec084	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
lkusuma9849@gn	10 / 10	L kusuma	1KS23EC049	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
arpithaeh4@gmai	10 / 10	Arpitha E H	.	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
charishmavadlam	9 / 10	V.charishma	IKS23EC121	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 3	Option 4	x and y a	0.88	Option 1
tejashwinir266@g	10 / 10	Tejashwini M	*	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
swethau686@gm	8 / 10	Swetha	1KS23EC103	B	Option 3	b and d only	Continuous and peri	Option 4	None of	Option 2	Option 4	x and y a	0.88	Option 1
shaliniselvaraj520	10 / 10	Shalini	1ks23ec095	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
kruthi12052005@	10 / 10	Kruthi M	1KS23EC047	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
thejashwinis2005(	10 / 10	Tejashwini S	1ks23ec115	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
meghanakrishnam	10 / 10	Meghana K	1KS23EC061	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
varshinivelumani2	10 / 10	Varshini.V	1KS23EC122	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
siddharth06214@	10 / 10	Siddharth k	1KS23EC104	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
spoorthygowda24	4 / 10	Spoorthy gowda.L	1ks23ec107	B	Option 2	b and d only	Continuous and peri	Option 3	Option 2	Option 3	Option 3	x and y a	0.81	Option 3
likithak8961@gm	10 / 10	Likitha.K	1KS23EC052	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
mohithgowdar250	10 / 10	Mohith gowda R	1KS23EC063	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
khushinishi6@gm	9 / 10	Khushi R	1KS23EC045	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88	Option 1
abhishekgowri200	10 / 10	Abhishek R	1ks23ec002	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
46krishnayyabhas	10 / 10	Bhaskar.k	1ks23ec017	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
manishsatish.198(	10 / 10	Manish. S	1ks23ec060	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
sudhirrathod7848(	10 / 10	Sudheer Rathod	1KS23EC109	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
manurpooja915@	10 / 10	Pooja Manur	1KS23EC076	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1

pavithrakamasani:	7 / 10	K. Pavithra	1KS23EC042	A	Option 1	b and d only	Continuous and peri	Option 2	None of	Option 2	Option 4	x and y a	0.88	Option 1
shashankn2205@	4 / 10	Shashank	Lateral entry	B	Option 1	a and c only	Continuous and peri	Option 2	Option 1	Option 4	Option 4	x and y a	0.96	Option 1
navyasree2049@(	9 / 10	A.Navya sree	1KS23EC009	A	Option 3	b and d only	Continuous and peri	Option 2	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
prarthanapbhat2@	10 / 10	Prarthana P Bhat	1KS23EC080	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
harshanbhushan1	10 / 10	Harsha N Bhushar	1ks23ec039	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
02monishgowda2(	10 / 10	Monish gowda N	1KS23EC064	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
aadityasp4@gmai	9 / 10	AADITYA SP	1KS23EC001	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.96	Option 1
aadityasp39@gm:	4 / 10	Aaditya SP	1KS23EC001	A	Option 3	b and d only	Continuous and peri	Option 4	None of	Option 1	Option 4	x and y a	1	Option 2
tejassnsimha@gn	8 / 10	Tejas	1ks23ec114	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
hanamantajatarao	10 / 10	Hanamant Ajatara	1KS23ECO38	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
sirivanthshivaredd	8 / 10	Sirivanth S	1KS23EC106	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
maheshsrinivassu	8 / 10	Mahesh . S	Diploma	B	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
jradhikareddy72@	9 / 10	D JYOTHI	1KS23EC025	A	Option 3	b and d only	Continuous and peri	Option 3	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
geetha.reddy7672	8 / 10	D GEETHA	1KS23EC024	A	Option 3	b and d only	Continuous and peri	Option 2	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
varshithagowdava	9 / 10	H.M Varshitha	1KS23EC035	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 2
shashanthnaidu1(	5 / 10	K Shashanth Naid	1KS23EC041	A	Option 2	b and d only	Continuous and peri	Option 1	Option 3	Option 4	Option 1	x and y a	0.88	Option 1
jyothireddyr70@g	5 / 10	D jyothi	1KS23EC025	A	Option 1	b and d only	Continuous and peri	Option 1	None of	Option 2	Option 4	cannot p	0.81	Option 1
laharimadeneni20	7 / 10	MADINENI LAHAF	1KS23EC054	A	Option 3	b and d only	Continuous and peri	Option 4	Option 2	Option 2	Option 2	x and y a	0.88	Option 1
tejaswiniyadavyad	10 / 10	TEJASWINI.L.YAI	1KS23EC116	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
keerthana7772@g	9 / 10	BHARATH KUMAI	1KS23EC017	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 3
chirule3492x@gm	9 / 10	CHIRANTH C	1KS23EC023	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	none of t
avinavprasad2004	9 / 10	AVINAV PRASAD	1KS23EC012	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 2
thrishap35@gmail	10 / 10	Thrisha.P	1KS23EC119	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
sandhyasandhya1	10 / 10	Sandhya.N	1KS23EC090	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
www.akashas001(	9 / 10	Akash A S	1KS23EC004	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 2
bibimariyam2006(	10 / 10	BIBI MARIYAM	1KS23EC021	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
kavyam2609@gm	10 / 10	Kavya.M	1KS23EC043	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
hprahulkrishna20(	10 / 10	HP Rahulkrishna	1KS23EC037	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
mani2005dk@gm:	7 / 10	MANIKANTA D K	1KS23EC059	A	Option 3	b and d only	Continuous and peri	Option 2	Option 1	Option 1	Option 4	x and y a	0.88	none of t
sanjanareddysp@	10 / 10	Sanjana Reddy S	1KS23EC092	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
khushijagatap56@	8 / 10	Khushi Jagatap	1KS23EC044	A	Option 3	b and d only	Continuous and peri	Option 1	Option 3	Option 2	Option 4	x and y a	0.88	Option 1
bhagyamadivalap	7 / 10	Bhagyashre Madiv	1KS23EC015	A	Option 3	b and d only	Continuous and peri	Option 2	None of	Option 2	Option 4	x and y a	0.88	Option 3
poorvibichali@gm	8 / 10	Poorvi Bichali	1KS23EC077	B	Option 3	b and d only	Continuous and peri	Option 4	Option 2	Option 2	Option 4	x and y a	0.88	Option 1
mogersindhu0@g	8 / 10	Sindhu Manjunath	1KS23EC105	B	Option 3	b and d only	Continuous and peri	Option 4	Option 2	Option 2	Option 4	x and y a	0.88	Option 1
2006rakshithagd@	5 / 10	Dgg	14jb	A	Option 3	c and d only	Continuous and peri	Option 2	Option 2	Option 4	Option 4	x and y a	0.81	Option 1
mallikarjunbailaho	9 / 10	Mallikarjun	1KS23EC058	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 1	Option 4	x and y a	0.88	Option 1
sachinvkumbar32(	10 / 10	Sachin	1KS23EC088	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1
santhoshags789@	10 / 10	Santhosha G S	1KS23EC093	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88	Option 1

raghuarathi21@gr	10 / 10	Raghu Y	Lateral entry	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
nagendrah1729@	9 / 10	NAGENDRA MAN	1KS23EC067	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
gyuvaraj510@gm	10 / 10	Yuvaraj gowda g	1ks23ec126	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
prajwalkumarpr@	10 / 10	P R Prajwal Kuma	1KS23EC073	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
namiths.1505@gn	9 / 10	Namith S	1KS23EC068	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
akashabhi166@gr	10 / 10	Akash S	1KS23EC005	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
affan.6hussain@g	9 / 10	Mohammed Affan	1KS23EC062	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
shreyabiradarbira	10 / 10	Shreya Biradar	1KS23EC101	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
arfatkankanwadi7	10 / 10	Mahammad arfat	1KS23EC055	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
ak80696116@gm	9 / 10	Akshay v	1ks23ec007	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 2
bhumikagowda28	10 / 10	Bhumika.V	1KS23EC020	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
purvipuru5@gmai	10 / 10	P Purvii	1KS23EC082	B	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
mruchitha451@gr	10 / 10	M Ruchitha	1KS23EC053	A	Option 3	b and d only	Continuous and peri	Option 3	Option 1	Option 2	Option 4	x and y a	0.88 Option 1
apoorvanagraj315	9 / 10	APOORVA N GO	1KS23EC011	A	Option 3	b and d only	Continuous and peri	Option 3	Option 3	Option 2	Option 4	x and y a	0.88 Option 1
lavanyacs0465@g	9 / 10	LAVANYA C S	1KS23EC050	A	Option 3	b and d only	Continuous and peri	Option 3	Option 3	Option 2	Option 4	x and y a	0.88 Option 1
dhanushbr0518@	9 / 10	Dhanush B R	1KS23EC027	A	Option 3	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 1
rohithbalan3008@	9 / 10	B ROHITH	1KS23EC014	A	Option 3	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 1
needsomepeace7	9 / 10	Govindan G	1KS23EC034	A	Option 3	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 1
nishchithanagaraj	7 / 10	Nishchitha Nagara	1ks23ec071	B	Option 2	b and d only	Continuous and peri	Option 3	None of	Option 2	Option 4	x and y a	0.88 Option 2
kushaldavaskar18	8 / 10	Kushal M	1KS23EC048	A	Option 3	b and d only	Continuous and peri	Option 4	Option 1	Option 1	Option 4	x and y a	0.88 Option 1
nagudarshan9@g	9 / 10	NAGADARSHAN	1ks23EC066	A	Option 3	b and d only	Continuous and peri	Option 3	Option 2	Option 2	Option 4	x and y a	0.88 Option 1
nithinbn389@gma	4 / 10	Nithin bn	1ks23ec072	B	Option 2	b and d only	discrete and a perio	Option 1	Option 1	Option 1	Option 1	x and y a	0.88 Option 1

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109

DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

Content Beyond syllabus

Academic Year	2024-25 (ODD)
Name of the Faculty	Mr.Santhosh Kumar.B.R/Kavya.B.M
Course Name /Code	Digital System Design using Verilog (BEC302A)
Semester/Section	III A & B
Activity Name	Code Debugging
Topic Covered	All Modules
Date	16/10/2024 to 27/10/2024
No. of Participants	138
Objectives/Goals	• To improve the debugging and analyzing skills in students • To improve the communication skills of students.
ICT Used	
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lecture on given topics. • Students were allowed to write the code for experiments from all the modules • Later students were given a set of 10 Verilog codes with errors. They had to run the code in Xilinx tool and correct the errors. • Students were asked to submit a report	
Relevant PO's	4,5,10
Significance of Results/Outcomes	• Students put an effort to analyze the errors and debug the logic • Ability to make the report
Reflective Critique	• Students improved their analyzing skills. • Students improved their communication skills by making a report.

(Photographs/Videos/Reports/Charts/Models)

K. S. INSTITUTE OF TECHNOLOGY

#14, Raghuvanahalli, Kanakapura Main road,
Bangalore – 560109

KSIT

Department of Electronics and Communication Engineering

Activity Report

of

Digital System Design using Verilog-BEC302

This is to certify that the **Code Debugging** Activity of the Cours **Digital System Design using Verilog-BEC302** has been successfully completed by Mrs. **Sindhu Manjunath Moger** bearing USN **1KS23EC105** for the academic year 2024-25.

Signature of the Course In charge

Signature of HOD

USN	Name	1KS23EC096	SHARANYA S M
1KS23EC070	NIKITHA T G	1KS23EC097	SHIRISHA S
1KS23EC071	NISHCHITHA NAGARAJU H	1KS23EC098	SHIVAKUMAR S GULGANJI
1KS23EC072	NITHIN B N	1KS23EC099	SHIVATMAJA
1KS23EC073	P R PRAJWAL KUMAR	1KS23EC100	SHRADDHA E N
1KS23EC074	PATHIPATI KAVYA SHREE	1KS23EC101	SHREYA BIRADAR
1KS23EC075	POOJA CHAVAN	1KS23EC102	SHREYA SHETTY
1KS23EC076	POOJA RAJENDRAKUMAR MANUR	1KS23EC103	SWETHA
1KS23EC077	POORVI	1KS23EC104	SIDDHARTH K
1KS23EC078	PRANATHI P	1KS23EC105	SINDHU MANJUNATH MOGER
1KS23EC079	PRANEETH N	1KS23EC106	SIRIVANTH S
1KS23EC080	PRARTHANA P BHAT	1KS23EC107	SPOORTHY GOWDA L
1KS23EC082	PURVII P	1KS23EC108	STUTHI SRINATH
1KS23EC083	R HARI HARA KUMARAN	1KS23EC109	SUDHEER
1KS23EC084	RAKSHITH S	1KS23EC110	SUKANYA D M
1KS23EC086	S SARASIJA	1KS23EC111	SUSHMITHA S
1KS23EC087	S SUJAN	1KS23EC112	SYEDA SUMAIYA FATHIMA
1KS23EC088	SACHIN	1KS23EC113	TANIA
1KS23EC089	SAHITHYA J	1KS23EC114	TEJAS S N
1KS23EC090	SANDHYA N	1KS23EC115	TEJASHWINI S
1KS23EC091	SANJANA MUNISWAMY SRINIVAS	1KS23EC116	TEJASWINI L YADAV
1KS23EC092	SANJANA REDDY S P	1KS23EC117	TEJENDRA N
1KS23EC093	SANTHOSHA G S	1KS23EC118	THANISHQ D GAIKWAD
1KS23EC094	SHAKTHI GANESH H L	1KS23EC119	THRISHA P

1KS23EC120	THRISHAR RAGHAVENDRA GOWDA
1KS23EC121	V CHARISHMA
1KS23EC122	VARSHINI V
1KS23EC123	VIJAYENDRA SUDHIR HOSUR
1KS23EC124	VIJETH SHANUBAUG
1KS23EC126	YUVARAJ GOWDA G
1KS24EC400	ARPITHA E H
1KS24EC401	B S PRUTHVI
1KS24EC402	D CHANDRAGOWDA
1KS24EC403	D HEMANTHARAJA
1KS24EC404	HEMANTH L M
1KS24EC405	MAHESH S
1KS24EC406	NISHANK B C
1KS24EC407	PUNEETH G
1KS24EC408	RAGHU Y
1KS24EC409	SHASHANK
1KS24EC410	SRUJAN A C
1KS24EC411	TEJASHWINI M
1KS22EC056	M. JAYASURRYA

Signature of Course In charge

Signature of HOD ECE

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Dept. of Electronics & Communication Engg
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Bengaluru - 560 109

USN	Name	USN	Name
1KS23EC001	AADITYA S P	1KS23EC026	DANESH RAZAK
1KS23EC002	ABHISHEK R	1KS23EC027	DHANUSH B R
1KS23EC003	ABHISHEK S	1KS23EC028	DHANUSH GOWDA K
1KS23EC004	AKASH A S	1KS23EC029	DHARANIPRIYA T K
1KS23EC005	AKASH S	1KS23EC030	DISHA R
1KS23EC006	AKASH YALLAPPA HOLIPPANAVAR	1KS23EC031	DIVYASHREE S
1KS23EC007	AKSHAY V	1KS23EC032	G VINOD KUMAR
1KS23EC008	AMILINENI BHARATH V	1KS23EC033	GONTUMUKKALA POOJITHA
1KS23EC009	AMPABATHINI NAVYA SREE	1KS23EC034	GOVINDAN G
1KS23EC010	ANANDA THIRTHA S ACHARYA	1KS23EC035	H M VARSHITHA
1KS23EC011	APOORVA N GOWDA	1KS23EC036	H N NITHIN
1KS23EC012	AVINAV PRASAD	1KS23EC037	H P RAHUL KRISHNA
1KS23EC013	B ADITHYA	1KS23EC038	HANAMANT AJATARAO
1KS23EC014	B ROHITH	1KS23EC039	HARSHA N BHUSHAN
1KS23EC015	BHAGYASHREE MADIVALAPPA INACHAGAL	1KS23EC040	K DILEEP KUMAR
1KS23EC016	BHANU PRIYA D N	1KS23EC041	K SHASHANTH NAIDU
1KS23EC017	BHARATH KUMAR K	1KS23EC042	KAMASANI PAVITHRA
1KS23EC018	BHASKAR K	1KS23EC043	KAVYA M
1KS23EC019	BHEEMASHANKAR	1KS23EC044	KHUSHI JAGATAP
1KS23EC020	BHUMIKA V	1KS23EC045	KHUSHI R
1KS23EC021	BI BI MARIYAM	1KS23EC047	KRUTHI M
1KS23EC022	CHANDU M	1KS23EC048	KUSHAL M
1KS23EC023	CHIRANTH C	1KS23EC049	L KUSUMA
1KS23EC024	D GEETHA		
1KS23EC025	D JYOTHI		

1KS23EC050	LAVANYA C S
1KS23EC051	LIKITH SHETTY
1KS23EC052	LIKITHA K
1KS23EC053	M RUCHITHA
1KS23EC054	MADINENI LAHARI
1KS23EC055	MAHAMMADARFAT AYUB KANKANWADI
1KS23EC057	MAHESH NAIK S
1KS23EC058	MALLIKARJUN BASAVARAJ BAILAHONGAL
1KS23EC059	MANIKANTA D K
1KS23EC060	MANISH S
1KS23EC061	MEGHANA K
1KS23EC062	MOHAMMED AFFAN HUSSAIN
1KS23EC063	MOHITH GOWDA R
1KS23EC064	MONISH GOWDA N
1KS23EC065	MUDDAPATI VAIBHAV
1KS23EC066	NAGADARSHAN V
1KS23EC067	NAGENDRA MANJUNATH HEGDE
1KS23EC068	NAMITH S
1KS23EC069	NAVANEETH K G

Signature of Course In charge

Signature of HOD ECE

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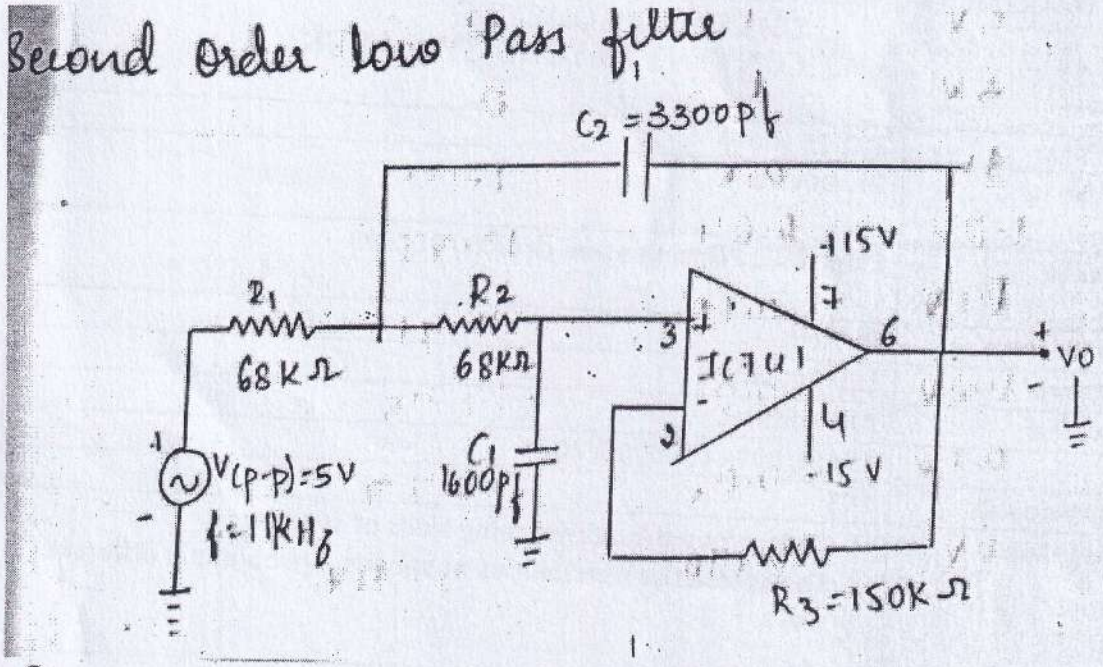
Bengaluru - 560 109

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

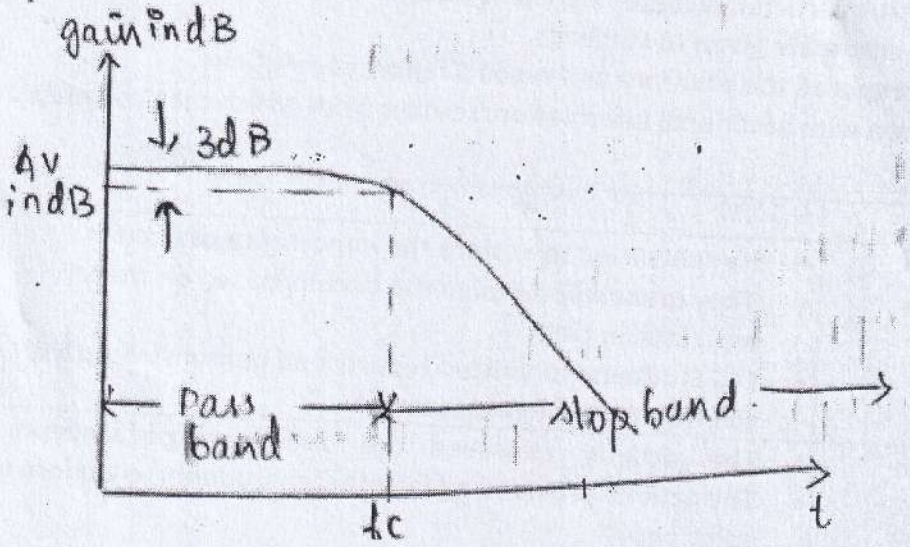
CONTENT BEYOND SYLLABUS

Academic Year	202-25 (odd)
Name of the Faculty	Dr. Devika B
Course Name /Code	Electronic Principles and circuits/BEC303
Semester/Section	III/A&B
Activity Name	Lab Activity
Topic Covered	All Modules
Date	19/10/2024 to 27/10/2024
No. of Participants	145
Objectives/Goals	• To improve the self-learning skills of students • To explore the possibilities of solving a problem in different ways.
ICT Used	Mulitisim software and hardware
Appropriate Method/Instructional materials/Exam Questions • Problem statements were given to students • Later students prepared the solutions and made a report of solutions. • Students are given with additional information/sources from which they can prepare.	
Relevant PO's	9,10,12
Significance of Results/Outcomes	• Students tried to explore the importance of circuits. • They understood design the circuits based on theory explained in class. • 145 Students, submitted reports and demonstrated the solution to problem statement.
Reflective Critique	• The activity improved the self-learning of students. • The activity provided a platform for students to explore new solutions .

Second Order low Pass filter



Expected curve



Frequency Hz	O/p V/q Vo	Gain = Vo/Vi	Gain in dB = 20 log10 (Vo/Vi)
100	5V	1	0
200	5V	1	0
300	5V	1	0
400	5V	1	0
500	5V	1	0
600	5V	1	0
700	5V	1	0
800	5V	1	0
900	5V	1	0
1K	4V	0.8	-1.938
2K	1.2V	0.24	-12.39
3K	0.6V	0.12	-18.41
4K	0.2V	0.04	-27.95
5K	0.1V	0.02	-33.97
10K	0V	0.016	-35.917.

Signature of Course In charge

Signature of HOD ECE

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Dept. of Electronics & Communication Engg
K.S. Institute of Technology
Bengaluru - 560 109

K.S.INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.
LIST OF STUDENTS FOR LAB ACTIVITY
FOR THE ACADEMIC YEAR - 2024 (ODD SEMESTER)

SECTION : A

SLNO	USN	NAME OF THE STUDENT
1	1KS23EC001	AADITYA S P
2	1KS23EC002	ABHISHEK R
3	1KS23EC003	ABHISHEK S
4	1KS23EC004	AKASH A S
5	1KS23EC005	AKASH S
6	1KS23EC006	AKASH YALLAPPA HOLIPPANAVAR
7	1KS23EC007	AKSHAY V
8	1KS23EC008	AMILINENI BHARATH V
9	1KS23EC009	AMPABATHINI NAVYA SREE
10	1KS23EC010	ANANDA THIRTHA S ACHARYA
11	1KS23EC011	APOORVA N GOWDA
12	1KS23EC012	AVINAV PRASAD
13	1KS23EC013	B ADITHYA
14	1KS23EC014	B ROHITH
15	1KS23EC015	BHAGYASHREE MADIVALAPPA INACHAGAL
16	1KS23EC016	BHANU PRIYA D N
17	1KS23EC017	BHARATH KUMAR K
18	1KS23EC018	BHASKAR K
19	1KS23EC019	BHEEMASHANKAR
20	1KS23EC020	BHUMIKA V
21	1KS23EC021	BI BI MARIYAM
22	1KS23EC022	CHANDU M
23	1KS23EC023	CHIRANTH C
24	1KS23EC024	D GEETHA
25	1KS23EC025	D JYOTHI
26	1KS23EC026	DANESH RAZAK
27	1KS23EC027	DHANUSH B R
28	1KS23EC028	DHANUSH GOWDA K
29	1KS23EC029	DHARANIPRIYA T K
30	1KS23EC030	DISHA R
31	1KS23EC031	DIVYASHREE S
32	1KS23EC032	G VINOD KUMAR
33	1KS23EC033	GONTUMUKKALA POOJITHA
34	1KS23EC034	GOVINDAN G
35	1KS23EC035	H M VARSHITHA
36	1KS23EC036	H N NITHIN
37	1KS23EC037	H P RAHUL KRISHNA
38	1KS23EC038	HANAMANT AJATARAO
39	1KS23EC039	HARSHA N BHUSHAN
40	1KS23EC040	K DILEEP KUMAR
41	1KS23EC041	K SHASHANTH NAIDU
42	1KS23EC042	KAMASANI PAVITHRA
43	1KS23EC043	KAVYA M
44	1KS23EC044	KHUSHI JAGATAP
45	1KS23EC045	KHUSHI R
46	1KS23EC047	KRUTHI M
47	1KS23EC048	KUSHAL M
48	1KS23EC049	L KUSUMA
49	1KS23EC050	LAVANYA C S
50	1KS23EC051	LIKITH SHETTY
51	1KS23EC052	LIKITHA K
52	1KS23EC053	M RUCHITHA
53	1KS23EC054	MADINENI LAHARI
54	1KS23EC055	MAHAMMADARFAT AYUB KANKANWADI
55	1KS23EC056	MAHESH MAHADEV GURUVANNAVAR
56	1KS23EC057	MAHESH NAIK S
57	1KS23EC058	MALLIKARJUN BASAVARAJ BAILAHONGAL
58	1KS23EC059	MANIKANTA D K
59	1KS23EC060	MANISH S
60	1KS23EC061	MEGHANA K
61	1KS23EC062	MOHAMMED AFFAN HUSSAIN
62	1KS23EC063	MOHITH GOWDA R
63	1KS23EC064	MONISH GOWDA N
64	1KS23EC065	MUDDAPATI VAIBHAV
65	1KS23EC066	NAGADARSHAN V
66	1KS23EC067	NAGENDRA MANJUNATH HEGDE
67	1KS23EC068	NAMITH S
68	1KS23EC069	NAVANEETH K G

K.S.INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGG.

LIST OF STUDENTS FOR LAB. ACTIVITY

FOR THE ACADEMIC YEAR - 2024 (ODD SEMESTER)

SECTION : B

SLNO	USN	NAME OF THE STUDENT
1	1KS23EC070	NIKITHA T G
2	1KS23EC071	NISHCHITHA NAGARAJU H
3	1KS23EC072	NITHIN B N
4	1KS23EC073	P R PRAJWAL KUMAR
5	1KS23EC074	PATHIPATI KAVYA SHREE
6	1KS23EC075	POOJA CHAVAN
7	1KS23EC076	POOJA RAJENDRAKUMAR MANUR
8	1KS23EC077	POORVI
9	1KS23EC078	PRANATHI P
10	1KS23EC079	PRANEETH N
11	1KS23EC080	PRARTHANA P BHAT
12	1KS23EC082	PURVII P
13	1KS23EC083	R HARI HARA KUMARAN
14	1KS23EC084	RAKSHITH S
15	1KS23EC086	S SARASIJA
16	1KS23EC087	S SUJAN
17	1KS23EC088	SACHIN
18	1KS23EC089	SAHITHYA J
19	1KS23EC090	SANDHYA N
20	1KS23EC091	SANJANA MUNISWAMY SRINIVAS
21	1KS23EC092	SANJANA REDDY S P
22	1KS23EC093	SANTHOSHA G S
23	1KS23EC094	SHAKTHI GANESH H L
24	1KS23EC095	SHALINI S
25	1KS23EC096	SHARANYA S M
26	1KS23EC097	SHIRISHA S
27	1KS23EC098	SHIVAKUMAR S GULGANJI
28	1KS23EC099	SHIVATMAJA
29	1KS23EC100	SHRADDHA E N
30	1KS23EC101	SHREYA BIRADAR
31	1KS23EC102	SHREYA SHETTY
32	1KS23EC103	SWETHA
33	1KS23EC104	SIDDHARTH K
34	1KS23EC105	SINDHU MANJUNATH MOGER
35	1KS23EC106	SIRIVANTH S
36	1KS23EC107	SPOORTHY GOWDA L
37	1KS23EC108	STUTHI SRINATH
38	1KS23EC109	SUDHEER
39	1KS23EC110	SUKANYA D M
40	1KS23EC111	SUSHMITHA S
41	1KS23EC112	SYEDA SUMAIYA FATHIMA
42	1KS23EC113	TANIA
43	1KS23EC114	TEJAS S N
44	1KS23EC115	TEJASHWINI S
45	1KS23EC116	TEJASWINI L YADAV
47	1KS23EC118	THANISHQ D GAIKWAD
48	1KS23EC119	THRISHA P
49	1KS23EC120	THRISHAR RAGHAVENDRA GOWDA
50	1KS23EC121	V CHARISHMA
51	1KS23EC122	VARSHINI V
52	1KS23EC123	VIJAYENDRA SUDHIR HOSUR
53	1KS23EC124	VIJETH SHANUBAUG
54	1KS23EC126	YUVARAJ GOWDA G
55		ARPITHA E H
56		B S PRUTHVI
57		D CHANDRAGOWDA
58		D HEMANTHARAJA
59		HEMANTH L M
60		MAHESH S
61		NISHANK B C
62		PUNEETH G
63		RAGHU Y
64		SHASHANK
65		SRUJAN A C
66		TEJASHWINI M
67	1KS22EC056	M. JAYASURRYA

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE - 560109
DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING
ACTUVITY BASED LEARNING

Academic Year	2024-25
Name of the Faculty	Dr. P N Sudha
Course Name /Code	NETWORK ANALYSIS/ BEC304
Semester/Section	3rd A& B Section
Activity Name	Poster Presentation
Topic Covered	Symmetrical & Asymmetrical Encryption algorithms
Date	10th Dec2024
No. of Participants	138
Objectives/Goals	• To check the students Design & implementation of concepts learnt in Network Analysis
ICT Used	Projector, PC & Camera
Appropriate Method/Instructional materials/Exam Questions • 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	• 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 experiential Learning session

List of topics selected by students

Sl. No.	Name of the student	USN	Title of the concept & ap for poster
1	BHARATH KUMAR K	1KS23EC017	MILLMAN THEOREM
2	AKASH A S	1KS23EC004	
3	AVINAV PRASAD	1KS23EC012	
4	CHIRANTH C	1KS23EC023	
5			
6	Khushi Jagatap	1KS23EC044	Theven ns t

7	Kavya M	1KS23EC043	
8	M Lahari	1KS23EC054	
9	D Jyothi	1KS23EC025	
10			
11	Bibi Mariyam	1KS23EC021	Norton's th
12	Bhagyashree	1KS23EC015	
1	H. M Varshitha	1KS23EC035	Maximum power tra
2	Divya Shree. S	1KS23EC031	
1	M.Ruchitha	1KS23EC053	Superposition theorem
2	Bhumika.V	1KS23EC020	
3	L.Kusuma	1KS23EC049	
4	Likitha.K	1KS23EC052	
1	Harsha n bhushan	1KS23EC039	Supermesh and Supernode (
2	Shashanth naidu	1KS23EC041	
3	Bhaskar	1KS23EC018	
4	Hanumat	1KS23EC038	
1	Disha R	1KS23EC030	STAR TO DELTA and Delta
2	Dharani Priya TK	1KS23EC029	
3	Kruthi M	1KS23EC047	
1	Akash S	1KS23EC005	intial value theorem
2	Amlineni bharath	1KS23EC008	
3	mallikarjun	1KS23EC058	
4	vaibhav	1KS23EC065	
1	G.POOJITHA	1KS23EC033	LOOP ANALYSIS
2	K.PAVITHRA	1KS23EC042	
3	A.NAVYA SREE	1KS23EC009	
1	GOVINDAN G	1KS23EC034	LAPLACE TRA
2	B ROHITH	1KS23EC014	

3	AKSHAY V	1KS23EC007	
1	Mahesh S		Series resc
2	Tejas S . N	1KS23EC114	
3	Sirivanth	1KS23EC106	
4	Thanishq D Gaikawad	1KS23EC118	
1	Mohammed Affan	1KS23EC062	Transient and steady state A
2	Navaneeth	1KS23EC069	
3	LIKITH SHETTY	1KS23EC051	
4	VINOD G KUMAR	1KS23EC032	
1	P R PRAJWAL KUMAR	1KS23EC073	RC CIRCUIT
2	YUVARAJ GOWDA G	1KS23EC126	
3	RAGHU Y		
1	Mahesh Naik S	1KS23EC057	Resonance Circuit
2	Dhanush B R	1KS23EC027	
3	Mahammad Arfat	1KS23EC055	
1	varshini V	1KS23EC122	RLC CIRCUIT
2	V charishma	1KS23EC121	
3	Tejashwini.M		
4	Arpitha E H		
	Nikitha TG	1KS23EC070	H parameter
	Nishchitha Nagaraju H	1KS23EC071	
	P Purvii	1KS23EC082	
	Sanjana Reddy SP	1KS23EC092	
	Aaditya S P	1KS23EC001	Supermesh
	Manish S	1KS23EC060	
	Mohith Gowda	1KS23EC063	
	Monish Gowda	1KS23EC064	

1	Namith S	1KS23EC068	Kirchoff's
2	Kushal M	1KS23EC048	
3	H P Rahulkrishna	1KS23EC037	
4	Nagendra Hegde	1KS23EC067	
1	Poorvi.B	1KS23EC077	555 tir
2	Shalini.S	1KS23EC095	
3	Tejashwini.S	1KS23EC115	
1	Meghana K	1KS23EC061	Z&Y PARAMETERS
2	Khushi R	1KS23EC045	
3	Bhanu priya D N	1KS23EC016	
1	Kavya	1KS23EC074	two port network
2	Thrisha P	1KS23EC119	
3	Sandhya N	1KS23EC090	
4	swetha	1KS23EC103	
1	Sindhu Manjunath	1KS23EC105	voltage divider bias
2	Pooja M	1KS23EC076	
3	Spoorty Gowda L	1KS23EC107	
1	Sanjana MS	1KS23EC091	Fire Alarm
2	Shreya Shetty	1KS23EC102	
3	Stuthi Srinath	1KS23EC108	
4	Sushmitha S	1KS23EC111	
1	D Geetha	1KS23EC024	T parameter
2	apoorva	1KS23EC011	
3	lavanya	1KS23EC024	
1	prarthana p bhat	1KS23EC080	millmans theorem
2	shraddha e n	1KS23EC100	
3	tejaswini yadav l	1KS23EC116	

4	Sharanya SM	1KS23EC096	
1	Nithin B N	1KS23EC072	**Norton's theorem**
2	Sachin	1KS23EC088	
3	Santhosha G S	1KS23EC093	
4	D Hemantharaja		
1	R Hari Hara Kumaran	1KS23EC083	FILTER
2	Vijayendra Hosur	1KS23EC123	
3	Shivakumar	1KS23EC098	
4	Vijeth Shanbhag	1KS23EC124	
1	Praneeth N	1KS23EC079	Monostable & Astable
2	Shirisha S	1KS23EC097	
3	Pranathi P	1KS23EC078	
4	Tania	1KS23EC113	
1	Sarasija.S	1KS23EC086	AC circuits
2	Sahithya.J	1KS23EC089	
3	Syeda Sumaiya Fathima	1KS23EC112	
4	Thrishar raghavendra gowda	1KS23EC120	
1	B S Pruthvi		A B C D Parameter
2	Hemanth L M		
3	Puneeth G		
4	Srujan A C		
1	pooja chavan	1KS23EC075	Delta to star and star to delta
2	Shreya Biradar	1KS23EC101	
3	Sukanya D M	1KS23EC110	
4	siddharth	1KS23EC104	
1	CHANDU M	1KS23EC022	PARALLEL RESONANCE C
2	NAGADARSHAN V	1KS23EC066	
3	DHANUSH GOWDA	1KS23EC028	

	4	DANESH RAZZAK	1KS23EC026	
	5	MANIKANTA DK	1KS23EC059	

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DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

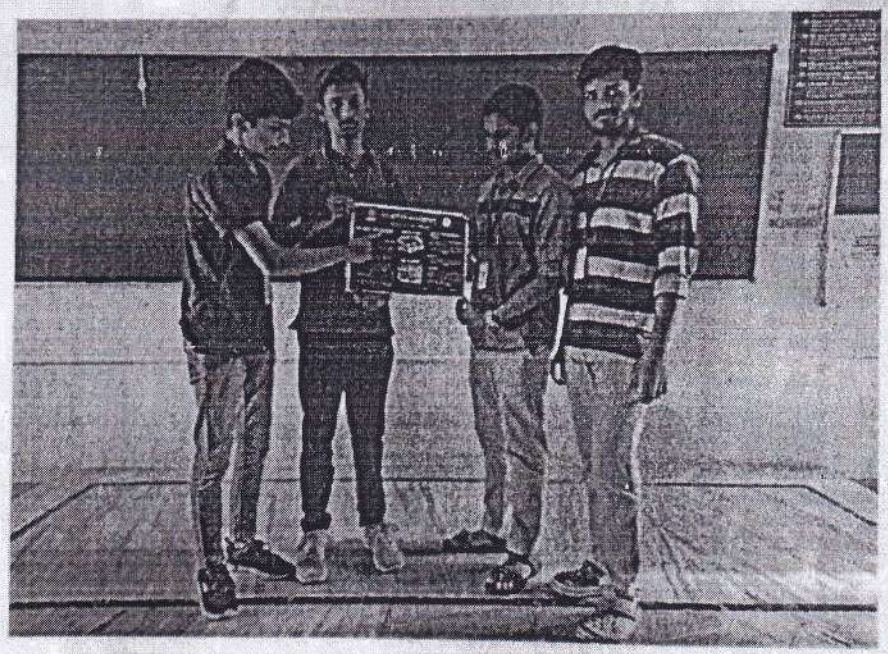
CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-25 (odd)
Name of the Faculty	Dr. Anita P
Course Name /Code	Computer organization and architecture /BEC306C
Semester/Section	III/A
Activity Name	Poster Presentations
Topic Covered	All Modules
Date	19/8/2024 to 21/12/2024
No. of Participants	69
Objectives/Goals	• To improve the self-learning and presentation skills of students • To improve the communication skills of students.
ICT Used	Posters
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lectures on Computer organization and architecture. • Later students were formed into groups, assigned with a topic, asked to prepare A3 size poster, and give oral presentation. • Students are given with additional information/ sources from which they can prepare.	
Relevant PO's	9,10,12
Significance of Results/Outcomes	□ Students tried to explore the importance of computer architecture, interrupts and memories and also improves their self-learning, communication, and team management skills as an individual and team member. □ Around 69 Students formed 18 teams, submitted posters, and delivered their presentation.
Reflective Critique	• The activity improved the self-learning of students. • The activity provided a platform for students to interact with peers, improve their communication skills, work as individuals and as team.

TEAM NUMBER	USN	NAME	TOPIC
1	1KS23EC009	A.NAVYASREE	INTERNAL MEMORY ROM AND RAM
	1KS23EC033	G.POOJITHA	
	1KS23EC041	K.PAVITHRA	
2	1KS23EC043	KAVYA.M	INTERRUPTS
	1KS23EC044	KHUSHI.J	
	1KS23EC054	LAHARI	
	1KS23EC024	D.JYOTHI	
3	1KS23EC021	BI BI MARIYAM	SECONDARY STORAGE DEVICE
	1KS23EC015	BHAGYA	
4	1KS23EC038	HANAMANT A	MEMORY HIERARCHY
	1KS23EC039	HARSHA N BHUSHAN	
	1KS23EC018	K SHASHANTH NAIDU	
	1KS23EC041	BHASKAR	
5	1KS23EC069	NAVANEETH	BASIC I/O OPERATIONS
	1KS23EC062	MOHAMMED AFFAN	
	1KS23EC051	LIKITH SHETTY	
	1KS23EC032	VINOD G KUMAR	
6	1KS23EC068	NAMITH S	PROCESSOR
	1KS23EC067	NAGENDRA HEGDE	
	1KS23EC048	KUSHAL M	
	1KS23EC037	H P RAHULKRISHNA	
7	1KS23EC013	ADITHYA B	CACHE MEMORY
	1KS23EC003	ABHISHEK S	
	1KS23EC002	ABHISHEK R	
	1KS23EC040	K DILEEP KUMAR	
8	1KS23EC004	AKASH A S	DIRECT MEMORY ACCESS(DMA)
	1KS23EC012	AVINAV PRASAD	
	1KS23EC017	CHIRANTH C	
	1KS23EC023	BHARATH KUMAR K	
9	1KS23EC053	M RUCHITHA	(RAM) RANDOM ACCESS MEMORY
	1KS23EC049	L KUSUMA	
	1KS23EC020	BHUMIKA V	
	1KS23EC052	LIKITHA K	
10	1KS23EC031	DIVYASHREE.S	

	1KS23EC035	VARSHITHA.	(ROM) READ ONLY MEMORY
	1KS23EC011	APOORVA N GOWDA	
	1ks23EC050	LAVANYA CS	
	1KS23EC024	D GEETHA	
11	1KS23EC010	ANANDA THIRTHA S ACHARYA	ACCESSING I/O DEVICES
	1KS23EC029	DHARANI PRIYA TK	
	1KS23EC030	DISHA R	PARAMETER PASSING THROUGH REGISTERS AND THROUGH STACK
12	1KS23EC047	KRUTHI M	
	1KS23EC061	MEGHANA K	
	1KS23EC045	KHUSHI R	
13	1KS23EC016	BHANU PRIYA D N	STATIC MEMORIES
	1KS23EC014	B ROHITH	
14	1KS23EC034	GOVINDAN G	TYPES OF ADDRESSING MODE
	1KS23EC007	AKSHAY V	
	1KS23EC027	DHANUSH B R	
	1KS23EC055	MAHAMMAD ARFAT	BASIC INPUT AND OUTPUT OPERATIONS
15	1KS23EC057	MAHESH NAIK S	
	1KS23EC005	AKASH S	
	1KS23EC008	AMLINENI BHARATH	
	1KS23EC058	MALLIKARJUN	
16	1KS23EC009	VAIBHAV	SUBROUTINES
	1KS23EC001	AADITYA SP	
	1KS23EC060	MANISH S	
	1KS23EC063	MOHITH GOWDA	
17	1KS23EC064	MONISH GOWDA	MAGNATIC HARD DISK
	1KS23EC022	CHANDU M	
	1KS23EC028	DHANUSH GOWDA	
	1KS23EC059	MANIKANTA D K	
	1KS23EC066	NAGADARSHAN	
18	1KS23EC026	DANESH RAZAK	DRAM

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



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS REPORT

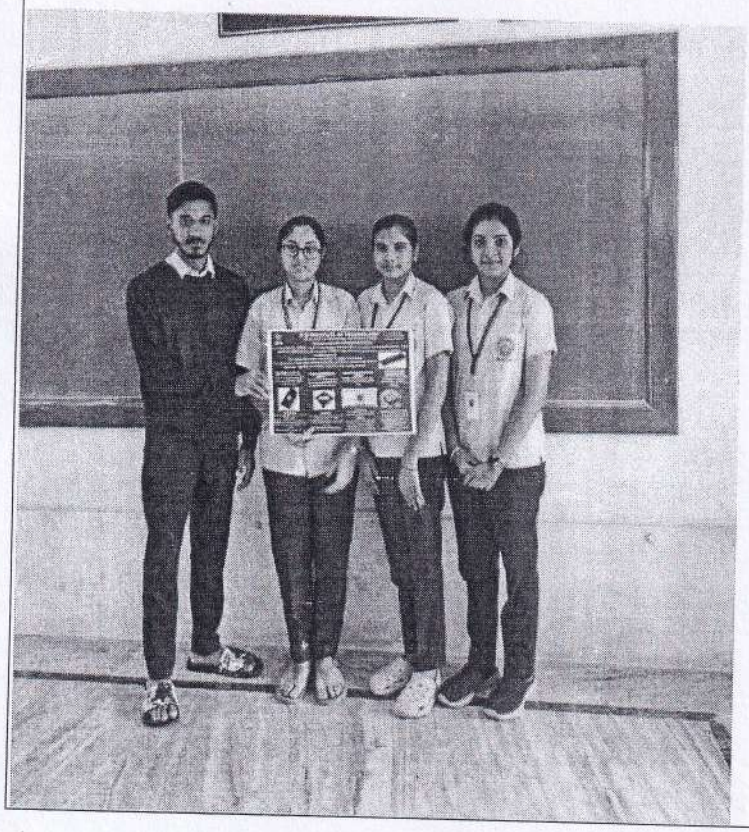
Academic Year	2024-2025
Name of the Faculty	Priyadharshini V
Course Name /Code	Computer organization and architecture /BEC306C
Semester/Section	III/B
Activity Name	Poster Presentation
Topic Covered	Concepts of Computer Organization and Architecture(All Modules)
Date	19/12/2024 to 21/12/2024
No. of Participants	66
Objectives/Goals	• To improve self learning and presentation skills of students • To improve communication skills of students • To improve the skill in Team work
ICT Used	Posters
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lectures. • Later students were formed into groups,assigned with a topic,asked to prepare a poster,and give presentation	
Relevant PO's	9,10,11,12
Significance of Results/Outcomes	• Preparing the posters using the concepts learnt in the course helped the students to improve their understanding of the topics. • Improved their presentation skill.
Reflective Critique	The activity provided a platform for students to interact with peers ,improve their communication skills and work as a team.

TEAM NUMBER	USN	NAME	TOPIC
1	1KS23EC093	SANTOSHA .G.S	DMA CONTROLLER
	1KS23EC088	SACHIN	
	1KS23EC072	NITHIN B N	
	1KS23EC084	RAKSHITH S	
2	1KS23EC098	SHIVAKUMAR GULGANJI	CISC AND RISC
	1KS23EC083	HARIHARA KUMARAN R	
	1KS23EC123	VIJAYENDRA HOSUR	
	1KS23EC099	SHIVATMAJA	
3	1KS23EC092	SANJANA REDDY S P	SECONDARY STOTAGE DEVICES
	1KS23EC071	NISHCHITHA NAGARAJU	
	1KS23EC070	NIKITHA T	
	1KS23EC082	PURVII P	
4	1KS24EC405	MAHESH S	TYPES OF COMPUTERS
	1KS23EC114	TEJAS S N	
	1KS23EC106	SIRIVANTH S	
	1KS23EC118	THANISHQ D GAIKWAD	
5	1KS23EC086	SARASIJA	EVOLUTION OF CPU
	1KS23EC089	SAHITHYA J	
	1KS23EC096	SHARANYA S M.	
	1KS23EC112	SYEDA SUMAIYA FATHIMA	

6	1KS23EC073	P R PRAJWAL KUMAR	USB FLASH DRIVES:THE ULTIMATE SECONDARY STORAGE SOLUTION
	1KS23EC126	YUVARAJ GOWDA G	
	1KS24EC408	RAGHU Y	
7	1KS23EC076	POOJA M	SD CARDS
	1KS23EC077	POORVI B	
	1KS23EC095	SHALINI S	
	1KS23EC105	SINDHU M	
	1KS23EC115	TEJASHWINI S	
8	1KS23EC075	POOJA CHAVAN	IEEE STANDARD 754 FLOATING POINT NUMBERS
	1KS23EC110	SUKANYA D M	
	1KS23EC104	SIDDHARTH K	
	1KS23EC101	SHREYA B	
9	1KS23EC097	SHIRISHA S	MULTI CORE PROCESSOR VS SINGLE CORE PROCESSOR
	1KS23EC078	PRANATHI P	
	1KS23EC113	TANIA	
	1KS23EC107	SPOORTHY GOWDA L	
10	1KS24EC403	HEMANTHARAJA	SUBROUTINES
	1KS24EC402	CHANDRAGOWDA	
	1KS23EC109	SUDHEER RATHOD	
11	1KS24EC406	NISHANK B C	ORGANIZATION OF 1K X 1 MEMORY CHIP
	1KS24EC409	SHASHANK	
	1KS22EC056	JAYASURRYA M	
	1KS24EC404	HEMANTH L M	
12	1KS23EC121	V CHARISHMA	MULTI -PROCESSOR AND MULTI CORE

	1KS23EC122	V VARSHINI	PROCESSOR
	1KS24EC411	TEJASWINI M	
	1KS24EC400	ARPITHA E H	
	1KS23EC091	SANJANA M S	
	1KS23EC102	SHREYA SHETTY	
	1KS23EC108	STUTHI SRINATH	VOLATILE MEMORY VS NON VOLATILE MEMORY
13	1KS23EC111	SUSHMITHA S	
	1KS23EC074	KAVYA SHREE	
	1KS23EC090	SANDHYA N	
	1KS23EC103	SWETHA	
14	1KS23EC119	THRISHA P	BUS STRUCTURE IN COMPUTER ORGANIZATION
	1KS23EC100	SHRADDHA E N	
	1KS23EC080	PRARTHANA P BHAT	
	1KS23EC116	TEJASWINI L YADAV	
15	1KS23EC094	SHAKTHI GANESH	READ ONLY MEMORY(ROM)
	1KS24EC401	B S PRUTHVI	
	1KS24EC407	PUNEETH G	
	1KS24EC410	SRUJAN A C	
16	1KS23EC087	SUJAN S	COMPUTER BUS
	1KS23EC079	PRANEETH N	
	1KS23EC124	VIJETH SHANUBAUG	
17	1KS23EC120	THRISHAR R	CACHE MEMORY

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



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TEACHING AND LEARNING

Details of Content beyond syllabus Activities-2024-25 (ODD)
5th semester:

Semester/ Section	Course Name	Content beyond syllabus activity conducted	POs Covered	Faculty	Number of Activity
V/A&B	Technological Innovation and Management Enterprenership BEC501	Case study	6,7,9,10,11,12	Mrs. Vishalini Divakar	35
V/A&B	Digital Signal Processing BEC502	Mini Project	9,10	Mrs. Bhanumathi A	33
V/A&B	Digital Communication BEC503	Poster Presentation	1,2,9,10,12	Mrs.Sangeetha.V,	34
V/A&B	Data Structure Using C++ (Professional Elective Course) BEC515C	Online Course	1,2,3,5,9,10,12	Mrs. Bhargavi Ananth	132
V/A&B	Research Methodology and IPR BRMK557	Drafting of Literature study and patent forms	1,3,9,11	Dr. Rekha N	34
V/A&B	Environmental Studies BESK508	seminar	4, 5	Mrs. Shwetha K C	9

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TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS REPORT

Academic Year	2024-25 (ODD)
Name of the faculty	Mrs. Vishalini Divakar
Course Name /Code	Technological Innovation Management and Entrepreneurship / BEC501
Semester/Section	V / A & B
Activity Name	Case Study- Group discussion and presentation
Topic Covered	All topics of the course
Date	8/10/2024 to 6 /12/2024
No. of Participants	131 (Total 35 Case studies carried by 35 teams
Objectives/Goals	• To improve the self-learning skills of students • To improve the communication skills of students. • To develop individual and team work skills. • To apply theoretical knowledge into practice.
ICT Used	Presentation using PPT

Appropriate Method/Instructional materials/Exam Questions

- Case studies were given to all students as a part of their academic activity.
- Each project team consisted of 4 to 5 students.
- Each team has gone through the case study and answered to the questions and presented.
- Each team submitted the case study report with the answers to the case study questions.

Relevant PO's	6,7,9,10,11,12
Significance of Results/Outcomes	☐ Students had group discussion on the case study. ☐ They worked as a team in understanding the case study, answering to the questions and to prepare the report.
Reflective Critique	• The activity improved the learning, and communication skills of students. • The activity provided a platform for students to interact within team, improve their communication skills and learned teamwork &the importance of individual contribution in a team.

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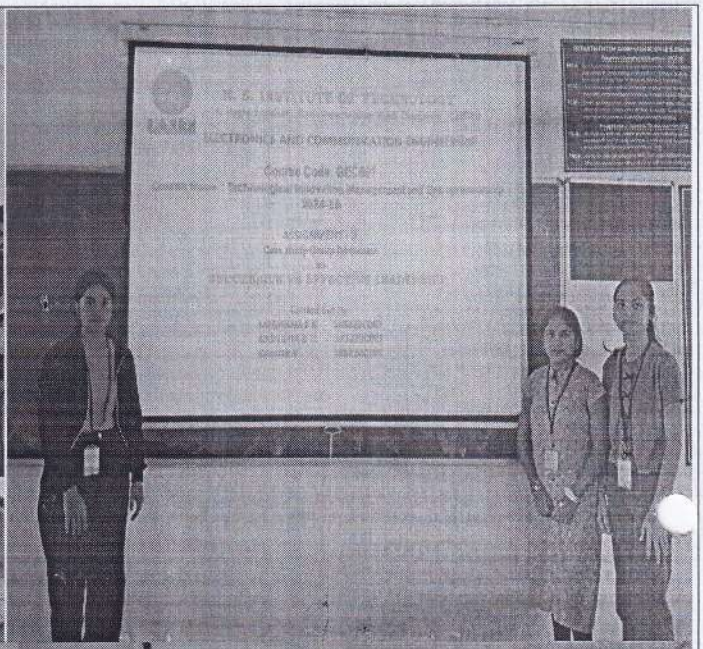

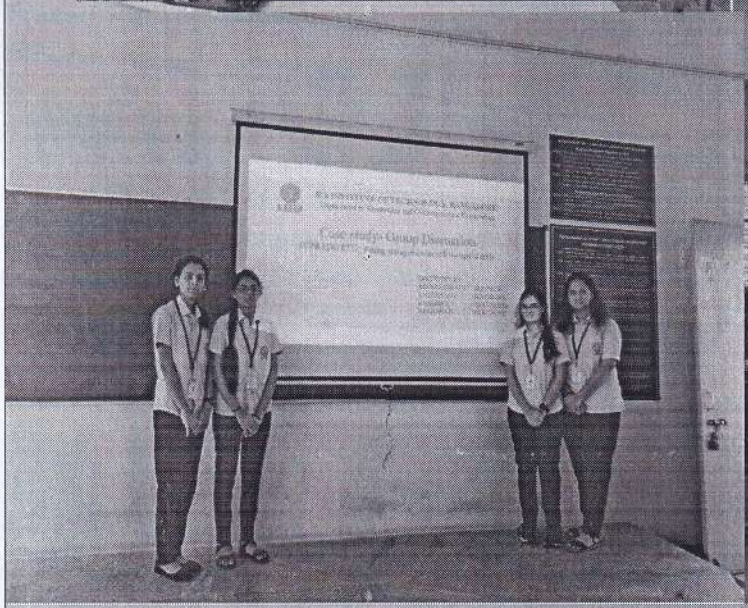


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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

V Semester Case Study Assignment 2024-25

Conent Beyond Syllabus

Course Code : BEC501

Course Name: Technological Innovation Management & Entrepreneurship

Date of Submission 9th December 2024

Sl No	USN	Name	Team #	Title
1	1KS22EC050	Adeeba Ismath	1	Page-18, INDRADO LTD.
2	1KS22EC055	Amulya M N		
3	1KS22EC062	Anagha K S		
4	1KS22EC065	Archana N		
5	1KS22EC026	Chidambar P M	2	Page-88 Faulty Procedure
6	1KS22EC027	Chinmay		
7	1KS22EC028	D N Mithun		
8	1KS22EC047	Karthik		
9	1KS22EC013	Anusha M P	3	Page-164, Designing Organization Structure
10	1KS22EC031	Deeksha S Reddy		
11	1KS22EC035	Gagana S		
12	1KS22EC040	Deekshitha G		
13	1KS22EC011	Ankita P Budni	4	Page-202, The New Organization Chart
14	1KS22EC021	Bhoomika		
15	1KS22EC030	Darshan Gowda M K		
16	1KS22EC034	Gagan V S		
17	1KS22EC001	Abhinay	5	Page-240, Getting well qualified Employee
18	1KS22EC023	C Harika		
19	1KS22EC038	G Deepasree		
20	1KS22EC059	M Sushmitha		
21	1KS22EC048	Kavya G	6	Page-340, Motivation Concepts
22	1KS22EC036	Gayathridevi B		
23	1KS22EC052	Lakshmi M		
24	1KS22EC057	Purushotham		
25	1KS22EC002	Kiran G	7	Page-341, Supervisor's Functions
26	1KS22EC008	Lohith Yaadav R		
27	1KS22EC009	Manoj Kumar N		
28	1KS22EC015	Mohammed Taha		
29	1KS22EC004	Adithya S	8	Page-361, MURUGAN KNITEAR EXPORTS
30	1KS22EC016	Archana S K		
31	1KS22EC018	Ashwini P		
32	1KS22EC063	Meghana S R	9	Page-389, Successful Vs Effective Leadership
33	1KS22EC067	Monisha B N		
34	1KS22EC105	Swati S		
35	1KS22EC007	Amrutha P	10	Page-61, Camella Tea Co
36	1KS22EC039	Gowtham M		
37	1KS22EC042	Harshan M J		
38	1KS22EC049	Keerthana K	11	Page-114, The Frustrated Plant Manageer
39	1KS22EC058	Madhu		
40	1KS22EC061	Manasa Chowdary		

41	1KS22EC005	Ajith D	12	Page 18, Charanthimath author, Mukesh Ambani
42	1KS22EC024	Chethan S P		
43	1KS22EC033	Dinesh N		
44	1KS22EC029	Arun Chowdary		
45	1KS22EC068	Varun	13	Visit any local Entrepreneur, Interview the entrepreneur, study his entrepreneurial journey & prepare the profile of the entrepreneur not exceeding 2000 words.
46	1KS22EC069	Varun Rayapati		
47	1KS22EC066	Vijay Kumar		
48	1KS22EC070	Vivek Raj		
49	1KS22EC045	Vamshi Krishna	14	Page 250, Charanthimath author, Centre for Entrepreneurship
50	1KS22EC046	Amarendra		
51	1KS22EC003	Ayyaji Madhava	15	Page 165, Charanthimath author, Effective Paperless Adminstration in Educational Institutions
52	1KS22EC006	C Rahul		
53	1KS22EC041	Chethan A G		
54	1KS22EC051	Kishan V		
55	1KS23EC404	Harish N	16	Pae-18, Cashless Aftermath
56	1KS23EC406	Manoj R		
57	1KS23EC408	Nikhil M S		
58	1KS23EC409	Vijay D S		
59	1KS22EC020	Adith P	17	Page-88, Goal Setting
60	1KS22EC022	Akash S		
61	1KS22EC025	Harish M V		
62	1KS22EC012	Anupriya T	18	Page-164 SCALAR CHAIN
63	1KS22EC032	Deeksha T S		
64	1KS22EC037	Gehana B S		
65	1KS22EC044	Inchara C		
66	1KS22EC010	Ankit Prakash	19	Page-202, SRIJAN
67	1KS22EC017	Ashok		
68	1KS22EC019	Avinash		
69	1KS22EC060	Mallikarjun		
70	1KS22EC086	Sahana T	20	Page-239, Hiring Right Person
71	1KS22EC088	Shalini S		
72	1KS22EC103	Sunita S S		
73	1KS22EC117	Vidta shree H H		
74	1KS22EC092	Shree Harshitha	21	Page-239, Job Analysis
75	1KS22EC118	Varshini S		
76	1KS22EC087	Sarika S		
77	1KS22EC116	Vedashree M		
78	1KS22EC082	Rohit M	22	Page-341, Search for Motivators
79	1KS22EC075	Pranav Rajath		
80	1KS23EC401	Chethan B L		
81	1KS23EC400	Bhavan M		
82	1KS22EC078	Raghu H M	23	Page 360, Ensuring Effective Communication
83	1KS22EC100	Srujan Karanth		
84	1KS22EC111	Vardhan Gowda		
85	1KS22EC119	Vikas K S		
86	1KS22EC064	Megharaj C M	24	Page 389, Getting Effective Leadership
87	1KS22EC074	Prajwal P		
88	1KS22EC089	Shashank C		
89	1KS22EC083	Sachin B		Page-420,

90	1KS22EC099	Srujan H G	25	Ensuring Effective Control System
91	1KS22EC121	Vishwanath V		
92	1KS22EC123	Vivek M S		
93	1KS22EC076	Prekshitha S	26	Page-61, The Town of Toys
94	1KS22EC112	Varsha B C		
95	1KS22EC120	Vishwanath B S		
96	1KS23EC410	Vikas Gowda		
97	1KS22EC107	Thanushree M K	27	Page-113, Choice of Location for the Plant
98	1KS22EC101	Sulagna Mondal		
99	1KS22EC110	Likith V		
100	1KS22EC108	Ganesh		
101	1KS22EC097	Sowjanya Rai	28	Visit any local Entrepreneur, Interview the entrepreneur, study his entrepreneurial journey & prepare the profile of the entrepreneur not exceeding 2000 words.
102	1KS22EC106	Tejaswini R		
103	1KS22EC077	Rachana Jagannath		
104	1KS22EC109	Umme Sara		
105	1KS22EC102	Sumanjali K	29	Page 18, Charanthimath author, Opportunity Identification-Byju Raveendran
106	1KS22EC098	Spoorthy B		
107	1KS22EC095	Sneha		
108	1KS22EC085	Sahana N R		
109	1KS22EC081	Rohit D Yadav	30	Page 165, Charanthimath author, Effective Paperless Adminstration in Educational Institutions
110	1KS22EC079	Rakshitha M B		
111	1KS22EC093	Siddharth Sharma		
112	1KS22EC094	Sinchana S S		
113	1KS22EC122	Vishwas M K	31	Page-18, INDRADO LTD.
114	1KS22EC073	Pooja V		
115	1KS22EC091	Shravani		
116	1KS23EC405	Harshith M K		
117	1KS22EC114	Hema	32	Page-88 Faulty Procedure
118	1KS22EC115	Neha M		
119	1KS22EC118	Monika H N		
120	1KS22EC124	Nisarga		
121	1KS22EC125	Yashavantha S	33	Page-164, Designing Organization Structure
122	1KS23EC403	Deekshith A		
123	1KS22EC104	Surya		
124	1KS22EC080	Ranjith Gowda		
125	1KS22EC090	Shilpa T R	34	Page-202, The New Organization Chart
126	1KS22EC071	Nityashree V L		
127	1KS22EC084	Sahana K R		
128	1KS22EC096	Soumya		
129	1KS22EC014	Archana M	35	Page-240, Getting well qualified Employee
130	1KS22EC043	Hitha S M		
131	1KS22EC054	Lekhana B H		

Text Books:

1. Principles of Management – P.C Tripathi, P.N Reddy, McGraw Hill Education, 6th Edition, 2017. ISBN-13:978-93-5260-535-4.

2. Entrepreneurship Development Small Business Enterprises- Poornima M Charantimath,2nd Edition, Pearson Education 2018, ISBN 978-81-317-6226-4.

Sl. No.	Gap Identification	Activity Planned to fill the gap	CO	Relevant PO Mapping	
1	PO1-PO5,PO9, PO10, PO12	Project and case study	CO1, CO2, CO3, CO4, CO5	PO9, PO10, PO11,PO12	

Course Incharge

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

Content beyond syllabus

Academic Year	2024-25 (ODD)
Name of the Faculty	Bhanumathi A
Course Name /Code	Digital signal processing/BEC502
Semester/Section	V/A & B
Activity Name	Mini project
Topic Covered	All Modules
Date	02/12/2024 to 10/12/2024
No. of Participants	130
Objectives/Goals	• To improve the self-learning and presentation skills of students • To improve the communication skills of students.
ICT Used	Laptop
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lecture on Digital signal processing applications. • Later students were formed into groups, assigned with a topic, asked to prepare a report, and give oral presentation. • Students are given with additional information/sources from which they can prepare.	
Relevant PO's	PO9,PO10
Significance of Results/Outcomes	• Students tried to explore the purpose of Digital signal processing is to filter analog signals from current time and space. • A practical understanding of the mathematical basis of signal processing is developed through design examples, applications, and Matlab demonstrations. The course is geared toward interested hardware and software engineers, who need to know the fundamental techniques used in the rapidly expanding field of digital signal processing. • Around 130 Students formed 33 teams, submitted reports, and delivered their presentation.
Reflective Critique	• The activity improved the self-learning of students. • 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)

Team Number	USN	Name	Topics
1.	1KS22EC050	KIRAN G	Audio Noise Reduction
	1KS22EC055	LOHITH YAADAV R	
	1KS22EC062	MANOJKUMAR N	
	1KS22EC065	MOHAMMED TAHA	
2.	1KS22EC064	MEGHARAJ C M	ECG Signal Filter
	1KS22EC074	PRAJWAL P	
	1KS22EC080	RANJITH GOWDA K	
	1KS22EC083	SACHIN BASAPPA BABANNAVAR	
	1KS22EC089	SHASHANK C	
3.	1KS22EC066	MONIKA H N	Circular Convolution property Verification
	1KS22EC068	NALLANI HEMA	
	1KS22EC069	NEHA M	
	1KS22EC070	NISARGA M	
4.	1KS22EC086	SAHANA T BASANAGOUDRA	Time Reversal and Convolution property of Z Transform
	1KS22EC088	SHALINI S	
	1KS22EC103	SUNITA SHIVASHANKAR SALOTAGI	
5.	1KS22EC087	SARIKA S	Circular convolution and complex conjugate property verification
	1KS22EC092	SHREE HARSHITHA S	
	1KS22EC113	VARSHINI S	
	1KS22EC116	VEDASHREE M	
6.	1KS22EC002	ADEEBA ISMATH	Initial Value and Final Value theorem
	1KS22EC008	AMULYA M N	
	1KS22EC009	ANAGHA K S	
	1KS22EC015	ARCHANA N	
7.	1KS23EC404	HARISH N	Overlap save method
	1KS23EC406	MANOJ R	
	1KS23EC408	NIKHIL M S	
	1KS23EC409	VIJAY D S	
8.	1KS22EC005	AJITH D	Stability of transfer function
	1KS22EC024	CHETAN S P	
	1KS22EC045	K VAMSHIKRISHNA	
	1KS22EC033	DINESH N	
9.	1KS22EC010	ANKIT PRAKASH	Symmetric and Anti symmetric of FIR Filters
	1KS22EC017	ASHOK	
10.	1KS22EC020	AYYAJI MADHAVA H N	Initial and Final Value theorem
	1KS22EC022	C RAHUL	
	1KS22EC025	CHETHAN A G	
	1KS22EC051	KISHAN V	
11.	1KS22EC076	PREKSHITHA S	Power Spectrum
	1KS22EC112	VARSHA B C	
	1KS22EC120	VISHWANATH B S	
	1KS23EC410	VIKAS GOWDA B S	
12.	1KS22EC099	SRUJAN H G	Realization of FIR Filter using Z-Transform
	1KS22EC121	VISHWANATH VEERAPUR	
	1KS22EC123	VIVEK M S	
	1KS23EC401	CHETHAN B L	
13.	1KS22EC003	ADITH PINNEPALLI	Convolution property verification in time domain
	1KS22EC006	AKASH S	
	1KS22EC041	HARISH M V	
	1KS22EC046	K AMARENDRA	
14.	1KS22EC077	RACHANA JAGANNATH	Amplitude modulation
	1KS22EC097	SOWJANYA RAI	
	1KS22EC106	TEJASWINI R	
	1KS22EC109	UMME SARA	

15.	1KS22EC079	RAKSHITA M B	Blurred Image
	1KS22EC081	ROHITH D YADAV	
	1KS22EC091	SHRAVANI G V	
	1KS22EC094	SINCHANA S S	
16.	1KS22EC073	POOJA V	Overlap add method
	1KS22EC122	VISHWAS M K	
	1KS23EC405	HARSHITH M K	
17.	1KS22EC071	NITHYASHREE V L	Image Enhancement
	1KS22EC084	SAHANA K R	
	1KS22EC090	SHILPA T R	
	1KS22EC096	SOUMYASHREE F SARAF	
18.	1KS22EC004	ADITHYA S	Parseval's theorem
	1KS22EC016	ARCHANA S K	
	1KS22EC018	ASHWINI P	
	1KS22EC013	ANUSHA MALIPATIL	
19.	1KS22EC019	AVINASH	IDFT using DFT
	1KS22EC042	HARSHAN M J	
20.	1KS22EC101	SULAGNA MONDAL	Butterworth LPF Using Frequency Sampling
	1KS22EC107	THANUSHREE M K	
	1KS22EC108	TIRUMALA GANESH BHARADWAJ SHARMA	
	1KS22EC110	V LIKHITH	
21.	1KS22EC082	ROHITH M	Image Processing For Edge Detection
	1KS22EC093	SIDDHARTH SHARMA	
	1KS22EC075	PRANAV RAJATH	
22.	1KS22EC117	VIDYASHREE H	Time shifting and Time scaling properties of z transform
	1KS22EC014	ARCHANA M	
	1KS22EC043	HITHA S M	
	1KS22EC054	LEKHANA B H	
	1KS22EC061	MANASA CHOWDARY	
23.	1KS22EC102	SUMANJALI K	Perseval's theprem and periodicity property
	1KS22EC098	SPOORTHY B	
	1KS22EC095	SNEHA	
	1KS22EC085	SAHANA N R	
24.	1KS22EC001	ABINAY	DIF-FFT Algorithm
	1KS22EC023	CHERUKURU HARIKA	
	1KS22EC038	GONUGUNTLA DEEPA SREE	
	1KS22EC059	MALLEMPUTA SUSHMITHA	
25.	1KS22EC114	VARUN	Frequency response of Chebyshev Filter
	1KS22EC115	VARUN RAYAPATI R	
	1KS22EC118	VIJAYKUMAR SHANMUKHAYYA NAVALAGIMATH	
	1KS22EC124	VIVEK RAJ B	
26.	1KS22EC104	SURYA R V	Overlap Save method
	1KS22EC125	YASHAVANTHA S	
	1KS23EC400	BHAVAN M	
	1KS23EC403	DEEKSHITH A	
27.	1KS22EC049	KEERTHANA K	Z Transform, Inverse Z transform and Linearity property verification
	1KS22EC058	MADHU HAROMUCHADI	
	1KS22EC063	MEGHANA S R	
	1KS22EC067	MONISHA B N	
28.	1KS22EC036	GAYATHRI DEVI B	Time Reversal Property of Z Transform
	1KS22EC048	KAVYA G	
	1KS22EC052	LAKSHMI M	
	1KS22EC057	MADHAM PURUSHOTHAM	
29.	1KS22EC026	CHIDAMBAR PRABHAKAR MUNAVALLI	Parsevals's theorem
	1KS22EC027	CHINMAY	

		SHEELVANTH	
	1KS22EC028	D N MITHUN	
	1KS22EC047	KARTHIK D	
30.	1KS22EC078	RAGHU H M	Auto correlation and Cross Correlation
	1KS22EC100	SRUJAN KARANTH N	
	1KS22EC111	VARDHAN GOWDA K N	
	1KS22EC119	VIKAS K S	
31.	1KS22EC011	ANKITA BUDNI	Overlap add method
	1KS22EC021	BHOOMIKA D	
	1KS22EC030	DARSHAN GOWDA M K	
	1KS22EC034	GAGAN V S	
32.	1KS22EC007	AMRUTHA P	Sampling theorem
	1KS22EC031	DEEKSHA S REDDY	
	1KS22EC035	GAGANA S	
	1KS22EC040	GUNTURU DEEKSHITHA	
33.	1KS22EC012	ANUPRIYA T	Low pass Butterworth Filter to remove High Frequency Noise from a signal
	1KS22EC032	DEEKSHA T S	
	1KS22EC037	GEHENA B S	
	1KS22EC044	INCHARA C	

Signature of Course In charge

Signature of HOD ECE

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K.S. Institute of Technology
Bengaluru - 560 109

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TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS

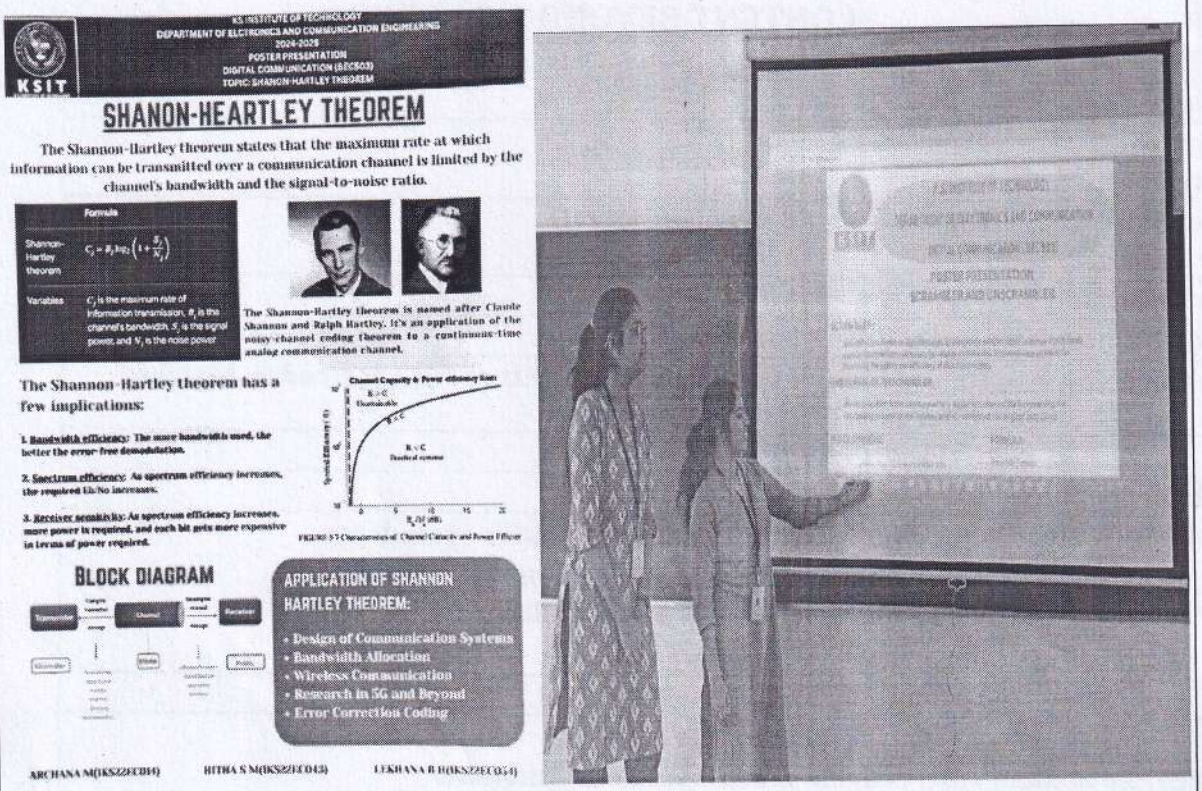
Academic Year	**2024-25 (Odd)**
Name of the Faculty	**Mrs.V.Sangeetha**
Course Name /Code	**Digital Communication/BEC503**
Semester/Section	**V/A &B**
Activity Name	**Poster Presentation**
Topic Covered	**Digital Modulation techniques, PSD of NRZ,RZ codes, Matched Filter , Error control Coding**
Date	25/11/2024 to 29/11/24
No. of Participants	**131**
Objectives/Goals	• **To improve the self-learning skills of students** • **To improve the communication skills of students.** • **To improve the ICT usage skills of students**
ICT Used	**Posters**

Appropriate Method/Instructional materials/Exam Questions

- **Initially delivered lecture on given topics.**
- **Later students were asked to give presentation on topic of their interest, prepare their own Poster and speak about it.**
- **Students are given with additional information/sources from which they can prepare innovatively and deliver a seminar on the same.**

Relevant PO's	1,2,9,10,12
Significance of Results/Outcomes	• **Students tried to open up and improve their PPT making skills and communication skills.** • **Students were divided into batches containing 5 members. Each of them expressed their views on the topic.**
Reflective Critique	• **The activity improved the learning, and communication skills of students** • **The activity provided a platform for students to interact with peers, improve their communication skills and work as individuals.**

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



K.S. INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
2024-2025
POSTER PRESENTATION
DIGITAL COMMUNICATION (BEC503)
TOPIC: SHANON-HARTLEY THEOREM

SHANON-HEARTLEY THEOREM

The Shannon-Hartley theorem states that the maximum rate at which information can be transmitted over a communication channel is limited by the channel's bandwidth and the signal-to-noise ratio.

Formula

Shannon-Hartley theorem: $C_t = B_t \log_2\left(1+\frac{S_t}{N_t}\right)$

Variables: C_t is the maximum rate of information transmission, B_t is the channel's bandwidth, S_t is the signal power, and N_t is the noise power

The Shannon-Hartley theorem is named after Claude Shannon and Ralph Hartley. It's an application of the noisy-channel coding theorem to a continuous-time analog communication channel.

The Shannon-Hartley theorem has a few implications:

1. Bandwidth efficiency: The more bandwidth used, the better the error-free demodulation.
2. Spectrum efficiency: As spectrum efficiency increases, the required Eb/No increases.
3. Receiver sensitivity: As spectrum efficiency increases, more power is required, and each bit gets more expensive in terms of power required.

Channel Capacity & Power efficiency limit

FIGURE 3.7 Characteristics of Channel Capacity and Power Efficiency

BLOCK DIAGRAM

APPLICATION OF SHANNON HARTLEY THEOREM:

- Design of Communication Systems
- Bandwidth Allocation
- Wireless Communication
- Research in 5G and Beyond
- Error Correction Coding

ARCHANA M(1KS22ECD14) HITHA S M(1KS22EC043) LEKHANA B R(1KS22EC054)

K S INSTITUTE OF TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION
POSTER PRESENTATION
COURSE: DIGITAL COMMUNICATION CODE: BEC503

COMPLEX LOW PASS REPRESENTATION OF BAND PASS FILTER

A complex low-pass representation of a band-pass filter simplifies the analysis and design of filters centered around a specific carrier frequency fcfc. Instead of dealing with high-frequency signals directly, the concept shifts the band-pass filter's behavior to baseband (near DC) using a frequency translation.

Complex Low-Pass Representation

The complex low-pass representation is derived by demodulating the band-pass signal or filter to baseband . The process involves:

1. Downshifting Frequencies to Baseband: A band-pass signal $x_{BP}(t)$ is downshifted by multiplying it with $e^{-j2\pi f_c t}$, yielding:

$$x_{LP}(t) = x_{BP}(t) \cdot e^{-j2\pi f_c t}$$

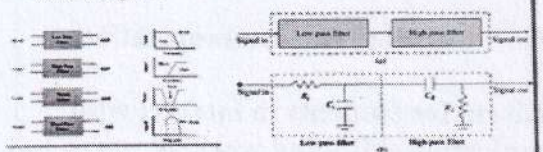
This shifts the spectrum of the band-pass signal to baseband (centered at 0 Hz).

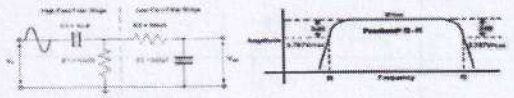
2. Complex Low-Pass Filter: Similarly, the complex low-pass equivalent of a band-pass filter is:

$$H_{LP}(f) = H_{BP}(f + f_c), \quad \text{for } f \in [-B/2, B/2].$$

$H_{LP}(f)$ defines the low-pass filter characteristics, which are easier to design and analyze.

Block Diagram





Advantages

1. Simplified Design Process
2. Accurate Frequency Response Control
3. Reduced Computational Complexity
4. Improved Filter Design Flexibility

Applications

1. Communication systems
2. Auto signal processing
3. Biomedical applications
4. Image and video processing
5. Radar Systems

Conclusion

Using complex low-pass filter representations for band-pass filters offers numerous advantages such as simplifying the design, reducing computational load, and providing betterflexibility and control, making it an efficient and effective choice for modern filter design tasks.

RACHANA JAGANNATH:1KS22EC077 SOWJANYA RAI:1KS22EC097 UMME SARA: 1KS22EC109 TEJASWINI R:1KS22EC106

Signature of Course Incharge

Signature of HOD-ECE

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Dept. of Electronics & Communication Engg
K.S. Institute of Technology
Bengaluru - 560 109

K.S. INSTITUTE OF TECHNOLOGY, BANGALORE – 560109

Department of Electronics & Communication Engineering

2024-25 ODD Semester

Course Name: Digital Communication **Course Code:** BEC503

Semester/sec: V A&B **Activity:**Poster Presentation

USN	Name	Team #	Title of Poster Presentation
1KS22EC050	Adeeba Ismath	1	Average information contents of symbols in long dependent sequences
1KS22EC055	Amulya M N		
1KS22EC062	Anagha K S		
1KS22EC065	Archana N		
1KS22EC026	Chidambar P M	2	Maximum likelihood estimator
1KS22EC027	Chinmay		
1KS22EC028	D N Mithun		
1KS22EC047	Karthik		
1KS22EC013	Anusha M P	3	TDM-PCM Telephone System
1KS22EC031	Deeksha S Reddy		
1KS22EC035	Gagana S		
1KS22EC040	Deekshitha G		
1KS22EC011	Ankita P Budni	4	Multiple Access Techniques
1KS22EC021	Bhoomika		
1KS22EC030	Darshan Gowda M K		
1KS22EC034	Gagan V S		
1KS22EC001	Abhinay	5	Cyclic Codes
1KS22EC023	C Harika		
1KS22EC038	G Deepasree		
1KS22EC059	M Sushmitha		
1KS22EC048	Kavya G	6	Block Diagram of digital communication
1KS22EC036	Gayathridevi B		
1KS22EC052	Lakshmi M		
1KS22EC057	Purushotham		
1KS22EC002	Kiran G	7	Turbo Codes
1KS22EC008	Lohith Yaadav R		
1KS22EC009	Manoj Kumar N		
1KS22EC015	Mohammed Taha		
1KS22EC004	Adithya S	8	Hilbert Transformation
1KS22EC016	Archana S K		
1KS22EC018	Ashwini P		
1KS22EC063	Meghana S R	9	Complex low pass representation of band pass filter
1KS22EC067	Monisha B N		
1KS22EC105	Swathi.S		
1KS22EC007	Amrutha P	10	PSD of NRZ Polar, Bipolar & Manchester Codes
1KS22EC039	Gowtham M		
1KS22EC042	Harshan M J		
1KS22EC045	Vamshi Krishna		
1KS22EC049	Keerthana K		

1KS22EC058	Madhu	11	Baseband pulse shaping
1KS22EC061	Manasa Chowdary		
1KS22EC005	Ajith D	12	Adaptive Equalizer
1KS22EC024	Chethan S P		
1KS22EC033	Dinesh N		
1KS22EC029	Arun Chowdary		
1KS22EC068	Varun	13	Statistical Characterization of Correlator Output
1KS22EC069	Varun Rayapati		
1KS22EC066	Vijay Kumar		
1KS22EC070	Vivek Raj		
1KS22EC003	Ayyaji Madhava	14	GMSK
1KS22EC006	C Rahul		
1KS22EC041	Chethan A G		
1KS22EC051	Kishan V		
1KS23EC404	Harish N	15	Shannon-Hartley Theorem
1KS23EC406	Manoj R		
1KS23EC408	Nikhil M S		
1KS23EC409	Vijay D S		
1KS22EC020	Adith P	16	Synchronization
1KS22EC022	Akash S		
1KS22EC025	Harish M V		
1KS22EC046	Amarendra		
1KS22EC012	Anupriya T	17	Scrambler and Unscrambler
1KS22EC032	Deeksha T S		
1KS22EC037	Gehana B S		
1KS22EC044	Inchara C		
1KS22EC010	Ankit Prakash	18	Transversal Equalizer
1KS22EC017	Ashok		
1KS22EC019	Avinash		
1KS22EC060	Mallikarjun		
1KS22EC086	Sahana T	19	Average information contents of symbols in long dependent sequences
1KS22EC088	Shalini S		
1KS22EC103	Sunita S S		
1KS22EC117	Vidya shree H H		
1KS22EC092	Shree Harshitha	20	Maximum likelihood estimator
1KS22EC118	Varshini S		
1KS22EC087	Sarika S		
1KS22EC116	Vedashree M		
1KS22EC082	Rohit M	21	TDM-PCM Telephone System
1KS22EC075	Pranav Rajath		
1KS23EC401	Chethan B L		
1KS23EC400	Bhavan M		
1KS22EC078	Raghu H M	22	Multiple Access Techniques
1KS22EC100	Srujan Karanth		
1KS22EC111	Vardhan Gowda		
1KS22EC119	Vikas K S		
1KS22EC064	Megharaj C M		

1KS22EC074	Prajwal P	23	Cyclic Codes
1KS22EC089	Shashank C		
1KS22EC083	Sachin B	24	Block Diagram of digital communication
1KS22EC099	Srujan H G		
1KS22EC121	Vishwanath V		
1KS22EC123	Vivek M S		
1KS22EC076	Prekshitha S	25	Turbo Codes
1KS22EC112	Varsha B C		
1KS22EC120	Vishwanath B S		
1KS23EC410	Vikas Gowda		
1KS22EC107	Thanushree M K	26	Hilbert Transformation
1KS22EC101	Sulagna Mondal		
1KS22EC110	Likith V		
1KS22EC108	Ganesh		
1KS22EC097	Sowjanya Rai	27	Complex low pass representation of band pass filter
1KS22EC106	Tejaswini R		
1KS22EC077	Rachana Jagannath		
1KS22EC109	Umme Sara		
1KS22EC102	Sumanjali K	28	PSD of NRZ Polar, Bipolar & Manchester Codes
1KS22EC098	Spoorthy B		
1KS22EC095	Sneha		
1KS22EC085	Sahana N R		
1KS22EC081	Rohit D Yadav	29	Baseband pulse shaping
1KS22EC079	Rakshitha M B		
1KS22EC093	Siddharth Sharma		
1KS22EC094	Sinchana S S		
1KS22EC122	Vishwas M K	30	Adaptive Equalizer
1KS22EC073	Pooja V		
1KS22EC091	Shravani		
1KS23EC405	Harshith M K		
1KS22EC114	Hema	31	Statistical Characterization of Correlator Output
1KS22EC115	Neha M		
1KS22EC118	Monika H N		
1KS22EC124	Nisarga		
1KS22EC125	Yashavantha S	32	Matched Filter
1KS23EC403	Deekshith A		
1KS22EC104	Surya		
1KS22EC080	Ranjith Gowda		
1KS22EC090	Shilpa T R	33	Synchronization
1KS22EC071	Nityashree V L		
1KS22EC084	Sahana K R		
1KS22EC096	Soumya		
1KS22EC014	Archana M	34	Shannon-Hartley Theorem
1KS22EC043	Hitha S M		
1KS22EC054	Lekhana B H		

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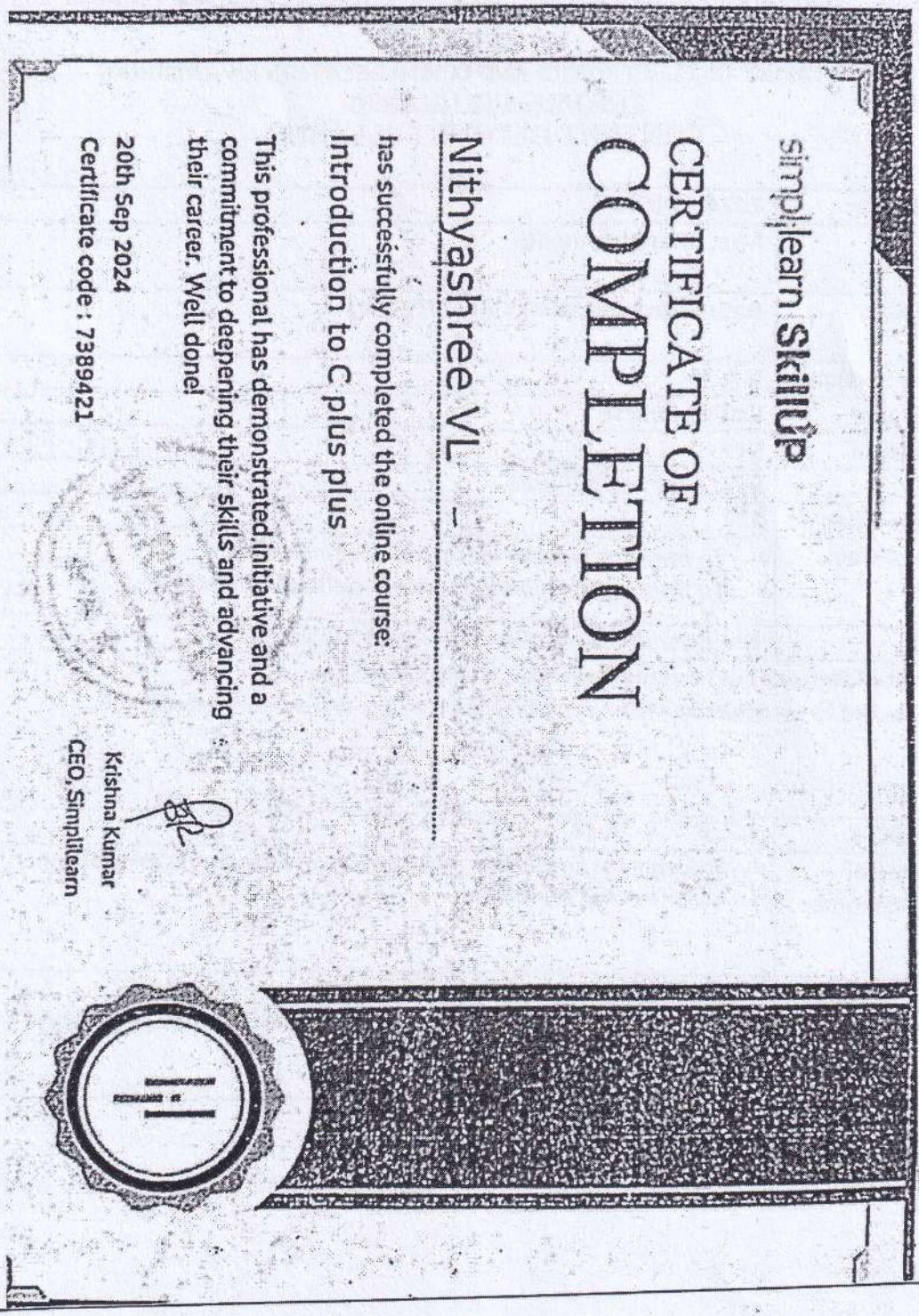
DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	Mrs. Bhargavi Ananth
Course Name /Code	Data Structures using C++ (BEC515C)
Semester/Section	V A, B
Activity Name	Online Course
Topic Covered	C++
Date	9/9/2024 – 9/10/2024
No. of Participants	132
Objectives/Goals	• To improve the self learning skills in students • To improve the communication skills of students.
ICT Used	Online course on Basics of C++ on Simplilearn
Appropriate Method/Instructional materials/Exam Questions • Students had to complete an online course on Basics of C++ and submit a certificate.	
Relevant PO's	1, 2, 3, 5, 9, 10, 12
Significance of Results/Outcomes	• Students put an effort to understand and analyze the assignment questions and solve them.
Reflective Critique	• Students improved their analyzing skills. Students improved their communication skills by making a report.

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



Signature of Course In charge

Signature of HOD ECE

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Dept. of Electronics & Communication Engg
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ACTIVITY ASSIGNMENT 3

Students were asked to individually complete an Online Course

Course Title: Basics of C++

Website: SimpliLearn

List of Students

Sl No.	USN No.	Name
1	1KS22EC001	ABINAY
2	1KS22EC002	ADEEBA ISMATH
3	1KS22EC003	ADITH PINNEPALLI
4	1KS22EC004	ADITHYA S
5	1KS22EC005	AJITH D
6	1KS22EC006	AKASH S
7	1KS22EC007	AMRUTHA P
8	1KS22EC008	AMULYA M N
9	1KS22EC009	ANAGHA K S
10	1KS22EC010	ANKIT PRAKASH
11	1KS22EC011	ANKITA BUDNI
12	1KS22EC012	ANUPRIYA T
13	1KS22EC013	ANUSHA MALIPATIL
14	1KS22EC014	ARCHANA M
15	1KS22EC015	ARCHANA N
16	1KS22EC016	ARCHANA S K
17	1KS22EC017	ASHOK
18	1KS22EC018	ASHWINI P
19	1KS22EC019	AVINASH
20	1KS22EC020	AYYAJI MADHAVA H N
21	1KS22EC021	BHOOMIKA D
22	1KS22EC022	C RAHUL
23	1KS22EC023	CHERUKURU HARIKA
24	1KS22EC024	CHETAN S P
25	1KS22EC025	CHETHAN A G
26	1KS22EC026	CHIDAMBAR PRABHAKAR MUNAVALLI
27	1KS22EC027	CHINMAY SHEELWANTH
28	1KS22EC028	D N MITHUN
29	1KS22EC029	DARAPANENI ARUN CHOWDARY

30	1KS22EC030	DARSHAN GOWDA M K
31	1KS22EC031	DEEKSHA S REDDY
32	1KS22EC032	DEEKSHA T S
33	1KS22EC033	DINESH N
34	1KS22EC034	GAGAN V S
35	1KS22EC035	GAGANA S
36	1KS22EC036	GAYATHRI DEVI B
37	1KS22EC037	GEHENA B S
38	1KS22EC038	GONUGUNTLA DEEPA SREE
39	1KS22EC039	GOWTHAM M
40	1KS22EC040	GUNTURU DEEKSHITHA
41	1KS22EC041	HARISH M V
42	1KS22EC042	HARSHAN M J
43	1KS22EC043	HITHA S M
44	1KS22EC044	INCHARA C
45	1KS22EC045	K VAMSHIKRISHNA
46	1KS22EC046	KANDRA AMARENDRA
47	1KS22EC047	KARTHIK D
48	1KS22EC048	KAVYA G
49	1KS22EC049	KEERTHANA K
50	1KS22EC050	KIRAN G
51	1KS22EC051	KISHAN V
52	1KS22EC052	LAKSHMI M
53	1KS22EC054	LEKHANA B H
54	1KS22EC055	LOHITH YAADAV R
55	1KS22EC057	MADHAM PURUSHOTHAM
56	1KS22EC058	MADHU HAROMUCHADI
57	1KS22EC059	MALLEMPUTA SUSHMITHA
58	1KS22EC060	MALLIKARJUNA SWAMY N
59	1KS22EC061	MANASA CHOWDARY
60	1KS22EC062	MANOJKUMAR N
61	1KS22EC063	MEGHANA S R
62	1KS22EC064	MEGHARAJ C M
63	1KS22EC065	MOHAMMED TAHA
64	1KS22EC066	MONIKA H N
65	1KS22EC067	MONISHA B N
66	1KS22EC068	NALLANI HEMA

67	1KS22EC069	NEHA M
68	1KS22EC070	NISARGA M
69	1KS22EC071	NITHYASHREE V L
70	1KS22EC073	POOJA V
71	1KS22EC074	PRAJWAL P
72	1KS22EC075	PRANAV RAJATH
73	1KS22EC076	PREKSHITHA S
74	1KS22EC077	RACHANA JAGANNATH
75	1KS22EC078	RAGHU H M
76	1KS22EC079	RAKSHITA M B
77	1KS22EC080	RANJITH GOWDA K
78	1KS22EC081	ROHITH D YADAV
79	1KS22EC082	ROHITH M
80	1KS22EC083	SACHIN BASAPPA BABANNAVAR
81	1KS22EC084	SAHANA K R
82	1KS22EC085	SAHANA N R
83	1KS22EC086	SAHANA T BASANAGOUDRA
84	1KS22EC087	SARIKA S
85	1KS22EC088	SHALINI S
86	1KS22EC089	SHASHANK C
87	1KS22EC090	SHILPA T R
88	1KS22EC091	SHRAVANI G V
89	1KS22EC092	SHREE HARSHITHA S
90	1KS22EC093	SIDDHARTH SHARMA
91	1KS22EC094	SINCHANA S S
92	1KS22EC095	SNEHA
93	1KS22EC096	SOUMYASHREE F SARAF
94	1KS22EC097	SOWJANYA RAI
95	1KS22EC098	SPOORTHY B
96	1KS22EC099	SRUJAN H G
97	1KS22EC100	SRUJAN KARANTH N
98	1KS22EC101	SULAGNA MONDAL
99	1KS22EC102	SUMANJALI K
100	1KS22EC103	SUNITA SHIVASHANKAR SALOTAGI
101	1KS22EC104	SURYA R V
102	1KS22EC105	SWATHI S
103	1KS22EC106	TEJASWINI R
104	1KS22EC107	THANUSHREE M K

105	1KS22EC108	TIRUMALA GANESH BHARADWAJ SHARMA
106	1KS22EC109	UMME SARA
107	1KS22EC110	V LIKHITH
108	1KS22EC111	VARDHAN GOWDA K N
109	1KS22EC112	VARSHA B C
110	1KS22EC113	VARSHINI S
111	1KS22EC114	VARUN
112	1KS22EC115	VARUN RAYAPATI R
113	1KS22EC116	VEDASHREE M
114	1KS22EC117	VIDYASHREE H
115	1KS22EC118	VIJAYKUMAR SHANMUKHAYYA NAVALAGIMATH
116	1KS22EC119	VIKAS K S
117	1KS22EC120	VISHWANATH B S
118	1KS22EC121	VISHWANATH VEERAPUR
119	1KS22EC122	VISHWAS M K
120	1KS22EC123	VIVEK M S
121	1KS22EC124	VIVEK RAJ B
122	1KS22EC125	YASHAVANTHA S
124	1KS23EC400	BHAVAN M
125	1KS23EC401	CHETHAN B L
126	1KS23EC403	DEEKSHITH A
127	1KS23EC404	HARISH N
128	1KS23EC405	HARSHITH M K
129	1KS23EC406	MANOJ R
130	1KS23EC408	NIKHIL M S
131	1KS23EC409	VIJAY D S
132	1KS23EC410	VIKAS GOWDA B S

Faculty in charge

HOD

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DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING

Content Beyond Syllabus

Academic Year	2024-25 (Odd)
Name of the Faculty	Dr. Rekha N
Course Name /Code	RESEARCH METHODOLOGY & IPR/BRMK557
Semester/Section	V/A &B
Activity Name	LITERATURE SURVEY & PATENT FORMS
Topic Covered	Drafting of Literature Survey paper & Patent Forms
Date	16/12/2024 to 20/12/24
No. of Participants	132
Objectives/Goals	• To improve the methods of gaining knowledge in existing research work • To identify the research gap • To gain knowledge of different patent forms available& the procedure to apply for patents
ICT Used	PPT
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lecture on given topics. • Later students were asked to prepare a draft of the literature survey paper or drafting of patent forms in their field of interest & present the same • Students are given with additional information/sources from which they can prepare innovatively and deliver a seminar on the same.	
Relevant PO's	PO1,PO3, PO9,PO11
Significance of Results/Outcomes	• Students tried to open up and improve their PPT making skills and communication skills. • Students were divided into batches containing not more than 4 members. Each of them expressed their views on the topic.
Reflective Critique	• The activity improved the research , learning and communication skills of students • The activity provided a platform for students to interact with peers, improve their communication skills and work as individuals.

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

"WATER CLEANING RC BOAT"

ADITHYA S
1KS22EC004
DEPT OF ECE
K S INTITUTE OF TECHNOLOGY

ARCHANA S K
1KS22EC016
DEPT OF ECE
K S INTITUTE OF TECHNOLOGY

ASHWINI P
1KS22EC018
DEPT OF ECE
K S INTITUTE OF TECHNOLOGY

CHETAN S P
1KS22EC024
DEPT OF ECE
K S INTITUTE OF TECHNOLOGY

ABSTRACT: The main aim of the project is the development of a water cleaning RC (Remote Control) boat offers a novel solution for addressing water pollution in smaller bodies of water such as ponds, lakes, and rivers. This project focuses on designing and building a prototype of an autonomous RC boat capable of collecting floating debris and contaminants. The boat is equipped with sensors, a collection mechanism, and a remote control interface to operate efficiently in various water conditions. The project emphasizes sustainability by using eco-friendly materials and a solar-powered energy system, reducing the environmental impact of the boat itself. Additionally, the boat is designed to be modular and easy to maintain, ensuring long-term usability. The integration of real-time data processing allows for optimal navigation, making the boat capable of navigating through obstacles and adjusting its path for effective waste collection. This research highlights the potential of combining automation with environmental management, opening pathways for future developments in the field of water pollution control using innovative technology.

Keywords: Water Cleaning, Remote Control Boat, Environmental Sustainability, Pollution Control, Waste Collection, Autonomous Navigation, Solar Power, Eco-friendly Design, Water Pollution Management, Technology Integration.

I INTRODUCTION:

Water bodies such as rivers, lakes, and ponds are essential to human and ecological systems, but they face constant threats from pollution due to human activities. Addressing this issue requires innovativeand cost-effective solutions, particularly in areas with limited access to large-scale cleaning equipment. One such innovative tool is the water-cleaning RC boat. The water-cleaning RC boat is a compact, remote-controlled vessel designed to remove floating debris, plastics, and contaminants from water surfaces. It provides an efficient, scalable, and affordable alternative to traditional water-cleaning methods. Operated using a remote control, the boat can navigate various water bodies, targeting polluted areas that are difficult to access using larger equipment. This project integrates principles of robotics, engineering, and environmental science to create a sustainable solution for water cleanup. The RC boat is equipped with essential components such as a collection mechanism (e.g., nets or conveyor belts), a propulsion system for navigation, and sensors to enhance its efficiency. These features enable the boat to collect waste effectively while being operated remotely, reducing labor costs and manual intervention. The compact size and maneuverability of the boat make it ideal for urban water bodies, which are often surrounded by infrastructure that limits the deployment of larger cleaning systems. Additionally, the boat's design emphasizes energy efficiency, often incorporating solar panels or rechargeable batteries to minimize environmental impact .The water-cleaning RC boat represents a step towards a cleaner, more sustainable environment. By addressing pollution at the surface level, it helps mitigate the broader impact of waste on aquatic ecosystems, preserving biodiversity and maintaining water quality for human and wildlife use. This innovative solution is not just a technological advancement but also a call to action for individuals and communities to contribute to environmental conservation.

II LITERATURE SURVEY:

"Experimental Working Model of River Cleaning And Trash Cleaning Boat" In this paper author has designed and implemented River cleaning Boat was designed with an intention of clean the water debris floating on the lake. boat consists of dust lifting grill which connects with the garbage collector. This dust which is on the river surface

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Department of Electronics & Communication Engineering

2024-25

Course Name: RESEARCH METHODOLOGY & IPR **Course Code: BRMK557**

Semester/sec:V A&B

Content Beyond Syllabus

LITERATURE SURVEY OR PATENT DRAFTING

Batch No.	Students in the batch		LITERATURE SURVEY OR PATENT DRAFTING	Title
	USN	Name		
1	1KS22EC105	Surya R V	LITERATURE SURVEY	Weather monitoring using RF communication
	1KS22EC125	Yashwantha S		
	1KS23EC400	Bhavan		
	1KS23EC403	Deekshith		
2	KS22EC081	Rohith D Yadav	LITERATURE SURVEY	Survey on water quality monitoring using AI & IOT
	KS22EC079	Rakshitha M B		
	KS22EC093	Siddharth S		
	KS22EC094	Sinchana S S		
3	KS22EC029	Arun D	LITERATURE SURVEY	Automatic night light control
	KS22EC033	Dinesh N		
	KS22EC005	Ajith D		
	KS22EC057	Purushotham N		
4	KS22EC099	Srujan H G	LITERATURE SURVEY	Color sorting and line following robot
	KS22EC121	Vishwanath V		
	KS22EC123	Vivek M s		
	KS23EC401	Chethan B L		
5	KS22EC074	Prajwal P	LITERATURE SURVEY	Automatic Grass Cutter
	KS22EC080	Ranjith Gowda K		
	KS22EC083	Sachin B		
	KS22EC089	Shashank C		
6	KS22EC065	Mohammed Taha	LITERATURE SURVEY	Bluetooth Controlled Arduino Robot
	KS22EC064	Megharaj C M		
	KS22EC060	Mallikarjun		
	KS22EC003	Adith P		
7	KS22EC050	Kiran G	LITERATURE SURVEY	Fire Fighting Robot
	KS22EC055	Lohith Yadav		
	KS22EC062	Manoj Kumar N		
	KS22EC039	Gowtham M		

Batch No.	Students in the batch		LITERATURE SURVEY OR PATENT DRAFTING	Title
	USN	Name		
8	1KS22EC101	SulagnaMondal	LITERATURE SURVEY	Piezo Smart door mat
	1KS22EC107	Thanushree M K		
	1KS22EC108	Thirumala Ganesh		
	1KS22EC110	V Likith		
9	KS22EC013	Anusha M P	LITERATURE SURVEY	Detection of Rain and Clothes Protection
	KS22EC031	Deeksha S Reddy		
	KS22EC035	Gagana S		
	KS22EC040	G Deekshitha		
10	KS22EC012	Anupriya T	LITERATURE SURVEY	RF Controlled Robot for Human Detection using Heartbeat Sensor
	KS22EC032	Deeksha T S		
	KS22EC037	Gehana B S		
	KS22EC044	Inchara C		
11	KS22EC086	Sahana T V	PATENT DRAFTING	RFID Based smart Billing System
	KS22EC088	Shalini S		
	KS22EC103	Sunitha S S		
	KS22EC105	Swathi S		
	KS22EC117	Vidyashree		
12	KS22EC076	Prekshitha S	LITERATURE SURVEY	Fire Fighting Robot
	KS22EC112	Varsha B C		
	KS22EC120	Vishwanath B S		
	KS23EC410	Vikas Gowda B S		
13	KS22EC041	Harish M V	LITERATURE SURVEY	Automatic Water Level Controler
	KS22EC045	K Vamshikrishna		
	KS22EC046	K Amarendra		
14	KS22EC004	Adithya S	LITERATURE SURVEY	Water Cleaning RC Boat
	KS22EC016	Archana S K		
	KS22EC018	Ashwini P		
	KS22EC024	Chethan SP		

Batch No.	Students in the batch		LITERATURE SURVEY OR PATENT DRAFTING	Title
	USN	Name		
15	1KS23EC404	Harish N	LITERATURE SURVEY	Land Mine Detection Robo Car
	1KS23EC406	Manoj R		
	1KS23EC408	Nikhil M.S		
	1KS23EC409	Vijay D.S		
16	1KS22EC082	Rohith M	LITERATURE SURVEY	Self-Healing Security Framework for IOT Systems
	1KS22EC075	Pranav Rajath		
17	1KS22EC114	Varun	LITERATURE SURVEY	Surveillance Robot Using ESP-31CAM
	1KS22EC115	Varun Rayapatti		
	1KS22EC118	Vijay kumar		
	1KS22EC124	Vivek Raj		
18	1KS22EC087	Sarika S	LITERATURE SURVEY	Smart Helmet
	1KS22EC092	Shree Harshith S		
	1KS22EC113	Varshini S		
	1KS22EC116	Vedashree M		
19	1KS22EC011	Ankit P Budni	LITERATURE SURVEY	Wireless Notice Board Using GSM Module
	1KS22EC021	Bhoomika D		
	1KS22EC030	Dashan Gowda		
	1KS22EC034	Gagan V.S		
20	1KS22EC010	Ankit Prakash	LITERATURE SURVEY	Gesture Controlled Robot
	1KS22EC017	Ashok		
21	1KS22EC078	Raghu H.M	LITERATURE SURVEY	Automatic Regulation and Control of Fan and Smart Curtain
	1KS22EC100	SrujanKaranth N		
	1KS22EC111	Vardhan Gowda K.N		
	1KS22EC119	Vikas K,S		
22	1KS22EC066	Monika H.N	LITERATURE SURVEY	Automatic rine sensing car wiper
	1KS22EC069	Neha M		
	1KS22EC068	N Hema		
	1KS22EC070	Nisarga M		
23	1KS22EC006	Akash S	LITERATURE SURVEY	Social Moments and ?Human rights
	1KS22EC007	Amrutha P		
	1KS22EC019	Avinash		
	1KS22EC042	Harshan M J		
24	1KS22EC036	Gayathri Devi B	LITERATURE SURVEY	Automatic night Light Control
	1KS22EC048	Kavya G		
	1KS22EC052	Lakshmi M		
25	1KS22EC073	Pooja V	LITERATURE SURVEY	LPG gas Auto Detection System with Auto cut off Regulator using Arduino
	1KS22EC091	Shravani G V		
	1KS22EC122	Vishwas M K		
	1KS23EC405	Harshith M K		

Batch No.	Students in the batch		LITERATURE SURVEY OR PATENT DRAFTING	Title
	USN	Name		
26	1KS22EC002	AdeebaIsmath	PATENT FORMS	Generation of Electricity through dry Waste
	1KS22EC008	Amulya M N		
	1KS22EC009	Anagha K S		
	1KS22EC015	Archana N		
27	1KS22EC020	AyyajiMadhava	PATENT FORMS	Anti Sleep Alarm
	1KS22EC022	C Rahul		
	1KS22EC025	Chethan A G		
	1KS22EC051	Kisan V		
28	1KS22EC026	Chidamber P M	PATENT FORMS	Anti –Suicide Kit
	1KS22EC027	Chinmay S		
	1KS22EC028	D N Mithun		
	1KS22EC047	Karthik D		
29	1KS22EC001	abinay	PATENT DRAFTING	Voice Activated Mobility Chair
	1KS22EC023	C Harika		
	1KS22EC038	G Deepa sree		
	1KS22EC059	M Sushmitha		
30	1KS22EC049	Keerthana K	PATENT DRAFTING	Mobile charging using coin insertion
	1KS22EC58	MadhuHaromuchadi		
	1KS22EC061	ManasaChowdary		
	1KS22EC063	Meghana S R		
31	1KS22EC077	RachanaJagannath	PATENT DRAFTING	New Facial Recognigation Smart Glases for Visually challenged Person
	1KS22EC097	Sowjanya Rai		
	1KS22EC106	Tejaswini R		
	1KS22EC107	UmmeSara		
32	1KS22EC071	Nithyashree VL	PATENT DRAFTING	Solar Powered Automatic Soil Irrigation
	1KS22EC084	Sahana KR		
	1KS22EC090	Shilpa TR		
	1KS22EC096	Soumyashree S		
33	1KS22EC085	Sahana NR	PATENT DRAFTING	Laser Security System
	1KS22EC095	Sneha		
	1KS22EC098	Spoorthy B		
	1KS22EC102	Sumanjali K		
34	1KS22EC014	Archana M	PATENT DRAFTING	Prebooking Smart Parking System
	1KS22EC043	Hitha S M		
	1KS22EC054	Lekhana B H		
	1KS22EC067	Monisha BN		

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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

2024-2025

Branch : ECE
Course Name : Environment Studies **Course Code** :BESK508
Semester/Section : V/ A

Content Beyond Syllabus

ASSIGNMENT TYPE : Seminar Activity **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	Marks
1	1	Keerthana K	1KS22EC049	E waste Hazardous on Environment and it's treatment	20
2		Madhu Haromuchadi	1KS22EC058		20
3		Meghana S R	1KS22EC063		20
4		Monisha B N	1KS22EC067		20
5		Manasa Chowdary	1KS22EC061		20
6		Lekhana B H	1KS22EC054		20
7		Hitha S M	1KS22EC043		20
8		Archana M	1KS22EC014		20
9	2	Adithya S	1KS22EC004	Genetically Modified Food	20
10		Ajith D	1KS22EC005		20
11		Archana S K Ashwini P	1KS22EC016 1KS22EC018		20
12		Chetan S P	1KS22EC024		20
13		Dinesh	1KS22EC033		20
14		Adith	1KS22EC0		20
15		Vamshi Krishna	1KS22EC045		20
16	3	Abinay	1KS22EC001	Geothermal Energy	20

17		Arun Chowdary	1KS22EC029		20
18		Deepashree	1KS22EC038		20
19		Amarendra	1KS22EC046		20
20		Purushotham	1KS22EC057		20
21		Nalani Hema	1KS22EC068		20
22		Harika C	1KS22EC023		20
23		Sushmitha	1KS22EC059		20
24	4	Ankit	1KS22EC010	Engineering Application on Industrial waste management	20
25		Ashok	1KS22EC017		20
26		Avinash	1KS22EC019		20
27		Gehana	1KS22EC037		20
28		Deeksha T S	1KS22EC032		20
29		Inchara C	1KS22EC044		20
30		Harshan	1KS22EC042		20
31		Anupriya T	1KS22EC012		20
32		Deeksha S Reddy	1KS22EC031	Recycling process of EV battery	20
33		Deekshitha	1KS22EC040		20
34		Anusha Anagha	1KS22EC013 1KS22EC009		20
35		Amrutha	1KS22EC007		20
36		Gagana	1KS22EC035		20
37		Anagha	1KS22EC009		20
38		Neha	1KS22EC069	Urban sprawl	20
39		Nisarga	1KS22EC070		20
40		Monika	1KS22EC066		20
41		Kavya G	1KS22EC048		20
42		Gayathri	1KS22EC036		20
43		Lakshmi M	1KS22EC052		20
44					20
45		Kiran G	1KS22EC050	Engineering solution for effective utilisation of plastic	20
46		Manoj	1KS22EC062		20

47		Gowtham	1KS22EC039		20
48		Gagan	1KS22EC034		20
49		Darshan	1KS22EC030		20
50		Lohith	1KS22EC055		20
51		Mallikarjun	1KS22EC060		20
52		Gagan	1KS22EC034		20
53		Akash	1KS22EC006		20
54		Ayyaji Madhava	1KS22EC020	Carbon Trading	20
55		C Rahul	1KS22EC022		20
56		Kishan V	1KS22EC051		20
57		Chidambar	1KS22EC026		20
58		Chinmay	1KS22EC027		20
59		Karthik	1KS22EC047		20
60		Chethan A G	1KS22EC026		20
61		Mithun	1KS22EC028		20
62		Adeeba Ismath	1KS22EC002	Conversion of waste into value added products	20
63		Amulya	1KS22EC008		20
64		Archana N	1KS22EC015		20
65		Mohammed Taha Megharaj	1KS22EC065 1KS22EC064		20
66		Harish	1KS22EC041		20
67		Ankitha	1KS22EC011		20
68		Bhoomika	1KS22EC021		20

Signature of Course In charge

Signature of HOD

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DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

Details of Content beyond syllabus Activities-2024-25 (ODD)

7th Semester

Semester/ Section	Course Name	Content beyond syllabus activity conducted	POs Covered	Faculty	Number of Activity
VII A &B	Advanced VLSI 21EC71	Poster presentation	9,10,12	Mrs. Shubha Kulkarni	32
VII A &B	Optical & Wireless Communication 21EC72	Literature survey	9,10,12	Dr. Dinesh Kumar D S	31
VII A &B	Digital Image Processing (Professional elective Course-II) 21EC732	Mini project	5,9,10,12	Dr. Saleem S Tevaramani	33
VII A &B	Network Security (Professional elective Course-III)21EC742	Case study	4,10	Mr. Naveen Kumar S	33
VII A &B	Introduction to AI and ML (Open elective Course-II)21CS752	Case study	5,8,9,10,12	Mrs. Pragathi P	14
VII A &B	Introduction to Data Science (Open elective Course-II) 21CS754	Mini project	8,9,10,11,12	Dr. Electa Alice Jayarani A	15

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

Content beyo

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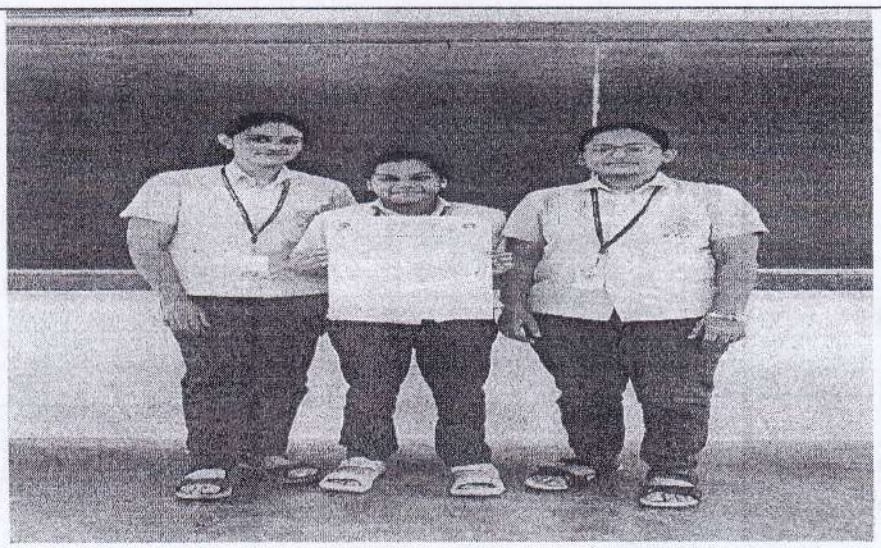
DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING
CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (odd)
Name of the Faculty	Shubha Kulkarni
Course Name /Code	Advanced VLSI /21EC71
Semester/Section	VII/A and B
Activity Name	Poster Presentations
Topic Covered	All Modules
Date	25/11/2024 to 5/12/2024
No. of Participants	123
Objectives/Goals	• To improve the self-learning and presentation skills of students • To improve the communication skills of students.
ICT Used	Posters
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lectures on Advanced VLSI. • Later students were formed into groups, assigned with a topic, asked to prepare A3 size poster, and give oral presentation. • Students are given with additional information/ sources from which they can prepare.	
Relevant PO's	9,10,12
Significance of Results/Outcomes	• Students tried to explore the importance of ASICS and improved their self-learning, communication, and team management skills as an individual and team member. • Around 123 Students formed teams, submitted posters, and delivered their presentation.
Reflective Critique	• The activity improved the self-learning of students. • The activity provided a platform for students to interact with peers, improve their communication skills, work as individuals and as team.



Signature of Course In charge

Signature of HOD ECE

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

Content beyond syllabus- Poster Presentation

Sub: Advanced VLSI

Academic Year	**2024-2025**		
Batch	**2021-2025**		
Year/Semester/section	**IV/VII/ A/ B**		
Subject Code-Title	**21EC71- Advanced VLSI**		
Name of the Instructor	**Mrs. SHUBHA KULKARNI**	**Dept.**	**ECE**

PO's Covered - PO9, 10, 11, 12

Sl No	Team #	USN	Name	Title
1	TEAM 1	1KS21EC017	B S Bhargav	Data path Logic Cells
		1KS21EC021	Chcintan. D S	
		1KS21EC048	Mithun.C	
2	TEAM 2	1KS21EC041	Likitha L	Global routing methods
		1KS21EC001	Aadhya B.N.	
		1KS21EC003	Abhishek H.C.	
		1KS21EC020	BinduShree S.	
3	TEAM 3	1KS21EC047	Misba.M	VLSI ASIC design flow diagram
		1KS21EC049	Monisha. D	
		1KS21EC061	Pooja R	
4	TEAM 4	1KS21EC032	Harini.L	Task and functions
		1KS21EC006	Akshay.C	
		1KS21EC010	Archana.G.M	
		1KS21EC013	Aishcharya.N.B	
5	TEAM 5	1KS21EC007	Akshay M S	Min cut placement algorithm
		1KS21EC042	Lohit SH	
		1KS21EC043	Lohith B	
		1KS21EC045	Manoj TV	
6	TEAM 6	1KS21EC023	Chiranth VV -	Slicing and Non-Slicing Floor plans
		1KS21EC033	Hemanth D R	
		1KS21EC055	Nayana J -	
		1KS21EC053	Narahari N Joshi	
7	TEAM 7	1KS21EC024	D. Charitha	Fixed and Dynamic Arrays
		1KS21EC050	Sai Himaja	
		1KS22EC404	Shrujana. G	
		1AH21EC025	Damini. S	
8	TEAM 8	1KS21EC015	B .N .Jeevan	Floor planning terminology
		1KS21EC028	Gagan V.	
		1KS21EC059	Pavan m pai	
		1KS21EC029	Gagana Sindu N	

9	TEAM 9	1KS21EC026	Deeksha	Floor planning tools
		1KS21EC035	Vivek	
		1KS21EC051	Nandan	
		1KS21EC054	Naveen	
10	TEAM 10	1KS21EC011	Archana. M	Verification process
		1KS21EC018	Bhavya. K	
		1KS21EC027	Deepika. D	
		1KS21EC062	PRAJWAL D	
11	TEAM 11	1KS22EC402	B Sreepadreddy	Test bench components
		1KS22EC403	Chaitra N.	
		1KS22EC405	Hema K .	
		1KS22EC411	Sudeep P.	
12	TEAM 12	1KS22EC400	Apoorva B.	Introduction to ASICs
		1KS22EC406	Pavan Gowda H.P	
		1KS22EC407	Prajwal Patil B.S	
		1KS22EC410	Sowmya A.M	
13	TEAM 13	1KS21EC039	Kushal Gowda U	Floor planning flowchart
		1KS21EC038	Komala Nagaraju	
		1KS21EC082	Sai Rahul	
		1KS21EC044	Lohith S	
14	TEAM 14	1KS21EC063	Prajwal G. V.	Functional coverage
		1KS21EC081	Sagar G S	
		1KS21EC106	Tharun K V	
		1KS21EC107	Thejas H V	
15	TEAM 15	1KS21EC078	Hari Dhanush	Clock planning
		1KS21EC075	Rehaman Shariff.	
		1KS21EC087	Sanjay P.	
		1KS21EC089	Shaik Arfath-	
16	TEAM 16	1KS21EC098	Sumukh	Booth multiplier
		1KS21EC104	Tarun M	
		1KS21EC115	Vidya I	
		1KS21EC116	Vidya Rawal D	
17	TEAM 17	1KS21EC067	Prayag Singh	Back annotation
		1KS21EC108	Thushar Cherian	
		1KS21EC113	Varshith S	
		1KS21EC092	Shwetha V	
18	TEAM 18	1KS21EC066	Pratham R shanbhag	Global Routing between blocks
		1KS21EC065	Prajwal R	
		1KS21EC069	Preksha s	
		1KS21EC084	Sanjana	
19	TEAM 19	(1KS21EC046)	Meghana N	Built-in Data Types
		(1KS21EC086)	Sanjay N	
		(1KS21EC090)	Shashank C U	

		(1KS22EC409)	Soundarya S	
20	TEAM 20	1KS21EC073	Rakshitha M R	Full Customer ASIC
		1KS21EC099	Suneetha	
		1KS22EC408	Sangeeta	
		1KS21EC112	Varsha S Davaskar	
21	TEAM 21	1KS21EC068	Preetham M	Geric cover groups and coverage options
		1KS21EC074	R J Shriya	
		1KS21EC076	Ritesh Kumar	
		1KS21EC118	Vijay Yadav	
22	TEAM 22	1KS21EC083	Samhitha Prakash	Data sampling
		1KS21EC096	Srilakshmi.N	
		1KS21EC105	Tejashree	
		1KS21EC110	Vaishnavi B. A.	
23	TEAM 23	1KS21EC077	Rithika	Layered Test bench
		1KS21EC097	Sripriya	
		1KS21EC117	Vidyashree.S	
24	TEAM 24	1KS21EC040	Kusuma.M. S	Types of Coverage
		1KS21EC100	Suneha.S	
		1KS21EC102	Surabhi.K. R	
		1KS21EC019	Bhuvana.M	
25	TEAM 25	1KS21EC002	Abhijith R	Basic test bench functionality
		1KS21EC058	Omkar N. B.	
		1KS21EC095	Spoorthy M .U.	
		IKS21EC036	Karan.S	
26	TEAM 26	1KS21EC080	S. Shajith Ali	Power planning
		1KS21EC120	Vyshak G R	
		1KS21EC121	Yashwanth M	
		1KS22EC400	Adithya D	
27	TEAM 27	1KS21EC064	Prajwal H.S	I/O & Power planning
		1KS21EC071	Raghavendra N.P	
		1KS21EC088	Satyam Kumar Mandal. S	
		1KS21EC091	V .Shreyas Raghavendra	
28	TEAM 28	1KS21EC070	Punith M	Floor planning purpose, steps and challenges
		1KS21EC093	Sindhu M Nimbal	
		1KS21EC109	Uday Kumar	
		1KS21EC110	Varsha Jaykumar	
29	TEAM 29	1KS21EC072	Rakshith.S	Anatomy of cover group
		1KS21EC085	Sanjay g	
		1KS21EC101	Supreeth.	
		1KS21EC103	Sushen.	
30	TEAM 30	1KS21EC014	Ashwin S R	Randomization in System Verilog
		1KS21EC037	Keerthana S	

		1KS21EC004	Abhishek T	
		1KS21EC005	Aishwarya. A	
31	TEAM 31	1KS21EC060	P.Manjunath	Random number generator
		1KS21EC114	Veeresh.K.N	
		1KS21EC056	Nayana.S S	
32	TEAM 32	1KS21EC031	Gurushankara M	Semi Custom ASIC.
		1KS21EC009	Anagha Prakash	
		1KS21EC008	Anirudh R Bhat	

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DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING

Content beyond Syllabus

Academic Year	2024-25 (Odd)
Name of the Faculty	Dr. Dinesh Kumar D S
Course Name /Code	Optical and Wireless Communication / 21EC72
Semester/Section	VII/A &B
Activity Name	LITERATURE SURVEY PAPER
Topic Covered	Optical and Wireless Communication Syllabus
Date	16/12/2024 to 20/12/24
No. of Participants	123
Objectives/Goals	• To improve self-learning skills of students • To improve communication skills of students • To improve writing skills of journal paper
ICT Used	Microsoft word

Appropriate Method/Instructional materials/Exam Questions

- Initially delivered lecture on given topics.
- Later students were asked to prepare a draft of the literature survey paper from different topics covering each module
- Students are given with additional information/sources from which they can prepare innovatively and submit the report as per standard format

Relevant PO's	9,10,12
Significance of Results/Outcomes	• Students tried to explore the different optical fibers and wireless communication generations, architecture ,design and Application • Improve their self-learning, communication, and project management skills as an individual and team member. • There are total 123 students and 31 teams prepared and Submitted literature review paper.
Reflective Critique	• The activity improved the self-learning of students. • 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) :Student literature survey paper is attached

Quantum Efficiency of Quantum Dot Lasers

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Abstract—**The quantum efficiency relates the calculated to the measured external threshold current of a laser. This quantity is often estimated from the length dependence of the external differential efficiency above threshold, assuming the carrier density is pinned. Often it is also assumed that the internal current varies linearly with the external current; it is shown here this is not the case due to the effect of stimulated emission on the current-voltage relation of the active region. Furthermore, it has been observed that spontaneous emission from inhomogeneous quantum dots does not pin above threshold which questions the determination of their optical loss. This nonpinning is reproduced by a model in which the laser photon rate equation is coupled to rate equations for the occupation of dot states mediated by a thermal phonon distribution. The threshold current from this model agrees with a Fermi–Dirac calculation but the external efficiency above threshold is lower and its length dependence gives a smaller value of mode loss than the input value. The reasons for this behavior are analyzed and it is concluded that a Fermi–Dirac calculation does not represent the light–current characteristics in quantum dot lasers at room temperature.**

Index Terms—**Quantum dots, semiconductor lasers, spontaneous emission.**

I. Introduction

KNOWLEDGE of the quantum efficiency of a diode laser is necessary when making a comparison between calculated gain-current relations and experimentally measured properties particularly the threshold current. Calculations usually provide the current due to intrinsic, radiative recombination processes within the active region[1] (J_{calc}) whereas measurements on laser structures give the current supplied by an external source (J_{ext}) which includes that due to carrier leakage and recombination in other parts of the structure in addition to the active region. The relation between them is expressed as an efficiency by the deceptively simple relation $J_{ext} = J_{calc}/\eta$.

In general the relation between the external current supplied and the internal radiative recombination current is made up of two components:

1) the fraction of the external current which enters the active region termed the injection efficiency, the balance being lost by current spreading and carrier leakage, and

It has been common practice to obtain the injection efficiency from an analysis of the differential quantum efficiency above threshold for devices of different cavity length, a procedur which also provides a value for the internal optical mode loss, α_i. Setting aside uncertainty due to the scatter in data from different devices, there are two concerns with this approach. Firstly the analysis relies upon the quasi-Fermi levels (and therefore carrier density) pinning above threshold and, secondly, it is assumed that the relation between internal and external currents is linear with the same slope below and above threshold, in other words that the *differential* injection efficiency above threshold is the same as the injection efficiency at and below threshold. The purpose of this paper is to examine these assumptions with particular reference to quantum dot lasers where there is evidence that the carrier density on the dots is not pinned above threshold.

The paper begins with a general outline of the analysis of the external differential efficiency as a function of cavity length. It is shown that, due to the onset of stimulated emission above threshold, the relation between internal and external currents is not linear going above threshold therefore it is important to distinguish "overall" efficiencies and differential efficiencies. Th specific implications for quantum dot lasers are examined using calculations which replicate the non-pinning above threshold in the dots, solving the single mode photon rate equation with rate equations for occupation of dot and wetting layer states mediated by a thermal phonon distribution, without prior assumption of a Fermi-Dirac distribution. The calculated light-current curves are analyzed as functions of cavity length revealing errors in the derived values of mode loss due to this behaviour.

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DEPARTMENT OF ELECTRONCS AND COMMUNICATION ENGINEERING

CBS ACTIVITY-OPTICAL AND WIRELESS COMMUNICATION-21EC72-2024-25(ODD)

Sl No	USN	Name	Team #	Topic	Section
	1KS21EC017	B S BHARGAV	1	TDMA	A
	1KS21EC021	CHINTAN D S			
	1KS21EC048	MITHUN C			
	1KS21EC041	Likitha L	2	DIFFRACTION GRATING	A
	1KS21EC001	Aadhya BN.			
	1KS21EC003	Abhishek HC.			
	1KS21EC020	BinduShree S.			
	1KS21EC047	Misba.M	3	MATERIAL DISPERSION	A
	1KS21EC049	MONISHA D			
	1KS21EC061	POOJA R			
	1KS21EC032	Harini.L	4	SCATTERING LOSSES	A
	1KS21EC006	Akshay.C			
	1KS21EC010	Archana.GM			
	1KS21EC013	Ashcharya.NB			
	1KS21EC007	Akshay M S	5	LED AND LASER	A
	1KS21EC042	Lohit SH			
	1KS21EC043	Lohith B			
	1KS21EC045	Manoj TV			
	1KS21EC023	Chiranth VV -	6	QUANTUM EFFICIENCY OF QUANTUM DOT LASER	A
	1KS21EC033	Hemanth D R			
	1KS21EC055	Nayana J -			
	1KS21EC053	Narahari N Joshi			
	1KS21EC024	D CHARITHAMUTTHULUR	7	FIBER GRATING TECHNIQUES	A
	1KS21EC050	SAI HIMAJA			
	1KS22EC404	SHRUJANA G			
	1AH21EC025	DAMINI S			
	1KS21EC015	B N Jeevan	8	CO CHANNEL INTERFERENCE	A
	1KS21EC028	Gagan V.			
	1KS21EC059	Pavan m pai			
	1KS21EC029	Gagana Sindu N			
	1KS21EC026	Deeksha	9	GSM WIRELESS COMMUNICATION SYSTEM	A
	1KS21EC035	Vivek			
	1KS21EC051	Nandan			
	1KS21EC054	Naveen			
	1KS21EC011	ARCHANA M	10	GENERATIONS OF WIRELESS NETWORKS	A&B
	1KS21EC018	BHAVYA K			
	1KS21EC027	DEEPIKA D			
	1KS21EC062	PRAJWAL D			
	1KS22EC402	B Sreepadreddi -	11	ANALYSIS OF WAVELENGT DIVISION MULTIPLEXING	A&B
	1KS22EC403	Chaitra N -			
	1KS22EC405	Hema K -			
	1KS22EC411	Sudeep P -			
	1KS22EC400	Apoorva B -	12	SPACE DIVISION MULTIPLE ACCESS	A&B
	1KS22EC406	Pavan Gowda HP			
	1KS22EC407	Prajwal Patil BS			
	1KS22EC410	Sowmya AM			
	1KS21EC039	Kushal Gowda U	13	MOBILE RADIO CHANNEL	A&B
	1KS21EC038	Komala Nagaraju			
	1KS21EC082	Sai Rahul			
	1KS21EC044	Lohith S			
	1KS21EC063	Prajwal G V:	14	TDMA	B
	1KS21EC081	Sagar G S			
	1KS21EC106	Tharun K V			
	1KS21EC107	Thejas H V			
	1KS21EC078	Hari Dhanush	15	GSM PROTOCOL ARCHITECTURE	B
	1KS21EC075	Rehaman Shariff-			
	1KS21EC087	Sanjay P-			
	1KS21EC089	Shaik Arfath-			
	1KS21EC098	Sumukh	16	PHOTODETECTORS	
	1KS21EC104	Tarun M			
	1KS21EC115	Vidya I			

	1KS21EC116	Vidya Rawal D			B
	1KS21EC067	Prayag Singh	17	GSM SIGNALLING PROTOCOL ARCHITECTURE	
	1KS21EC108	Thushar Cherian			
	1KS21EC113	Varshith S			
	1KS21EC092	SHWETHA V			B
	1KS21EC066	Pratham R shanbhag	18	PRINCIPLES OF COMMUNICATION	
	1KS21EC065	prajwal R			
	1KS21EC069	Preksha s			
	1KS21EC084	sanjana			B
	(1KS21EC046)	Meghana N	19	CELLULAR COMMUNICATION IN LARGE SCALE NETWORKS	
	(1KS21EC086)	Sanjay N			
	(1KS21EC090)	Shashank C U			
	(1KS22EC409)	Soundarya S			A&B
	1KS21EC073	Rakshitha M R	20	FDMA	
	1KS21EC099	Suneetha			
	1KS22EC408	Sangeeta			
	1KS21EC112	Varsha S Davaskar			B
	1KS21EC068	Preetham M	21	WAVELENGTH DIVISION MULTIPLEXING	
	1KS21EC074	R J Shriya			
	1KS21EC076	Ritesh Kumar			
	1KS21EC118	Vijay Yadav			B
	1KS21EC083	SAMHITHA PRAKASH	22	ATTENUATION	
	1KS21EC096	SRILAKSHMI			
	1KS21EC105	TEJASHREE			
	1KS21EC110	VAISHNAVI B A			B
	1KS21EC077	RITHIKA	23	GSM TECHNOLOGIES	
	1KS21EC097	SRIPRIYA			
	1KS21EC117	VIDYASHREE			B
	1KS21EC040	Kusuma.M. S -	24	5G TECHNOLOGIES AND ITS APPLICATIONS	
	1KS21EC100	Suneha.S -			
	1KS21EC102	Surabhi.K. R -			A&B
	1KS21EC002	Abhijith R	25	EVOLUTION OF CELLULAR NETWORKS	
	1KS21EC058	Omkar N B-			
	1KS21EC095	Spoorthy M U-			
	IKS21EC036	KARAN S			A&B
	1KS21EC080	S. Shajith Ali	26	5G WIRELESS COMMUNICATION	
	1KS21EC120	Vyshak G R			
	1KS21EC121	Yashwanth M			
	1KS22EC400	Adithya D			A&B
	1KS21EC064	PRAJWAL HS	27	SDMA	
	1KS21EC071	RAGHAVENDRA NARAYAN			B
	1KS21EC088	SATHYAM KUMAR MANDAL S			
	1KS21EC091	V SHREYAS RAGHAVENDRA			
	1KS21EC070	Punith M	28	UOWC	
	1KS21EC093	Sindhu M Nimbal			
	1KS21EC109	Uday Kumar			
	1KS21EC110	Varsha Jaykumar			B
	1KS21EC072	RAKSHITH S	29	SINGLE MODE FIBERS	
	1KS21EC085	Sanjay g			
	1KS21EC101	Supreeth.			
	1KS21EC103	Sushen.			B
	1KS21EC060	POLURU MANJUNATH	30	GSM FRAME STRUCTURE	
	1KS21EC114	VEERESH K N			
		Nayana			A&B
	1KS21EC031	Gurushankara M	31	GSM	
	1KS21EC009	Anagha Prakash			
	1KS21EC008	Anirudh R Bhat			A

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TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	Dr.Saleem S Tevaramani,
Course Name/Code	Digital Image Processing/21EC732
Semester/Section	VII/A&B
Activity Name	Mini Project & Presentation
Topic Covered	All Modules
Date	09/12/2024 to 10/12/2024
No. of Participants	123
Objectives/Goals	➢ To improve the self-learning and presentation skills of students ➢ To improve the communication skills of students.
ICT Used	Laptop/Desktop/Simulation Tool
Appropriate Method/Instructional materials/Exam Questions ➢ Initially delivered lectures on Digital Image Processing. ➢ Later students were formed into groups, assigned with a topic, asked to do the simulation and give oral presentation. ➢ Students are given with additional information/ sources from which they can prepare.	
Relevant PO's	5,9,10,12
Significance of Results/Outcomes	➢ Students tried to explore the importance of Digital Image Processing, improved their self-learning, communication, and team management skills as an individual and team member. ➢ Students submitted projects in a group of two to four, and delivered their presentation.
Reflective Critique	➢ The activity improved the self-learning of students. ➢ The activity provided a platform for students to interact with peers, improve their communication skills, and work as individuals and as team.

Team. No	USN	Name	Title
T-1	1KS21EC001	Aadhya B N	Image Enhancement using Gamma correction
	1KS21EC002	Abhijith R	
	1KS21EC018	Bhavya K	
	1KS22EC403	Chaitra N	

T-2	1KS21EC003	Abhishek H C	From Real to Reel – Exploring Image Transformation Techniques
	1KS21EC002	Bindushree S	
	1KS21EC031	Gurushankara M	
	1KS21EC046	Meghana N	
T-3	1KS21EC004	Abhishek T S	Digital Image Processing For Automated coin counting
	1KS21EC014	Ashwini S R	
	1KS21EC037	Keerthana S	
	1KS21EC041	Likitha L	
T-4	1KS21EC005	Aishwarya A	Edge detection and contour image using open cv
	1KS21EC019	Bhuvana H	
	1KS21EC040	Kusuma M S	
	1KS21EC100	Suneha S	
T-5	1KS21EC006	Akshay C	Image enhancement and implementation of clahe algorithm
	1KS21EC010	Archana G M	
	1KS21EC013	Ashcharya N B	
	1KS21EC032	Harini L	
T-6	1KS21EC007	Akshay M S	Three types of Band pass filter
	1KS21EC042	Lohit S H	
	1KS21EC043	Lohith B	
	1KS21EC045	Manoj T V	
T-7	1KS21EC008	Anagha Prakash	Interactive Image Transformation with Python
	1KS21EC009	Anirudha R Bhar	
T-8	1KS21EC011	Archana M	Signature verification using image processing
	1KS21EC027	Deepika D	
	1KS21EC062	Prajwal D	
T-9	1KS21EC015	B N Jeevan	Age identification using Matlab
	1KS21EC028	Gagan V	
	1KS21EC029	Gagana Sindhu N	
	1KS21EC059	Pavan M Pai	
T-10	1KS21EC017	B S Bhargav	Hand map brightness control
	1KS21EC021	Chintan D S	
	1KS21EC048	Mithun C	
T-9	1KS21EC023	Chiranth V V	Image conversion (RGB TO HSI) using Python
	1KS21EC033	Hemanth D R	
	1KS21EC053	Narahari N Joshi	
	1KS21EC055	Nayana J	
T-10	1KS21EC024	Daggupati Charitha	Three types of band reject filters
	1KS21EC102	Surabhai K R	
	1KS22EC404	Gonuguntla Shrujana	
T-11	1KS21EC025	Damini S	Image Segmentation Using K – Means Clustering
	1KS21EC036	Karan S	
	1KS21EC050	Mutthuluru Sai Himaja	
	1KS21EC056	Nayana S	

T-12	1KS21EC026	Deeksha H K	Face mask detection using matlab
	1KS21EC035	Kambhampati Vivek	
	1KS21EC051	Nandan K	
	1KS21EC054	Naveen S	
T-13	1KS21EC038	Komala N	Drowsiness detection system using Matlab
	1KS21EC039	Kushal Gowda U	
	1KS21EC044	Lohith S	
	1KS21EC082	Sai Rahul N	
T-14	1KS21EC047	Misba M	Face Recognition based attendance using opencv
	1KS21EC049	Monisha D	
	1KS21EC061	Pooja R	
	1KS21EC060	Manjunath Poluru	
T-15	1KS22EC400	Adithya D	Medical Image Segmentation
	1KS22EC401	Apoorva B	
	1KS22EC406	Pavan Gowda H P	
T-16	1KS22EC402	B Sreepadreddi	Image Blurring using Python
T-17	1KS21EC058	Omkar N B	Three types of Low pass filter
	1KS21EC080	Shajith Ali S	
	1KS21EC120	Vyshak G R	
	1KS21EC121	Yashwanth M	
T-18	1KS21EC063	Prajwal G V	Otsu's Algorithm based medical image segmentation
	1KS21EC081	Sagar G S	
	1KS21EC106	Tharun K V	
	1KS21EC107	Thejas H V	
T-19	1KS21EC064	Prajwal H S	Noise Removing in an Image
	1KS21EC071	Raghavendra N P	
	1KS21EC088	Sathyam Kumar Mandal S	
	1KS21EC091	Shreyas V Raghavendra	
T-20	1KS21EC065	Prajwal R	Smoothing of image in image processing
	1KS21EC066	Prajwal R Shanbhag	
	1KS21EC069	Preksha S	
	1KS21EC084	Sanjana V	
T-21	1KS21EC067	Prayag Singh	Three types of High pass filters
	1KS21EC108	Thushar Cherian	
	1KS21EC113	Varshith S	
T-22	1KS21EC068	Preetham M	Image scaling and Morphological Operation
	1KS21EC074	Rayadurg Joish Shriya	
	1KS21EC076	Ritesh Kumar Sinha	
	1KS21EC118	Vijay Yadav R	
T-23	1KS21EC070	Punith M	Image Restoration using Wiener and Inverse wiener Filtering
	1KS21EC093	Sindhu M Nimbal	
	1KS21EC095	Spoorthy M U	

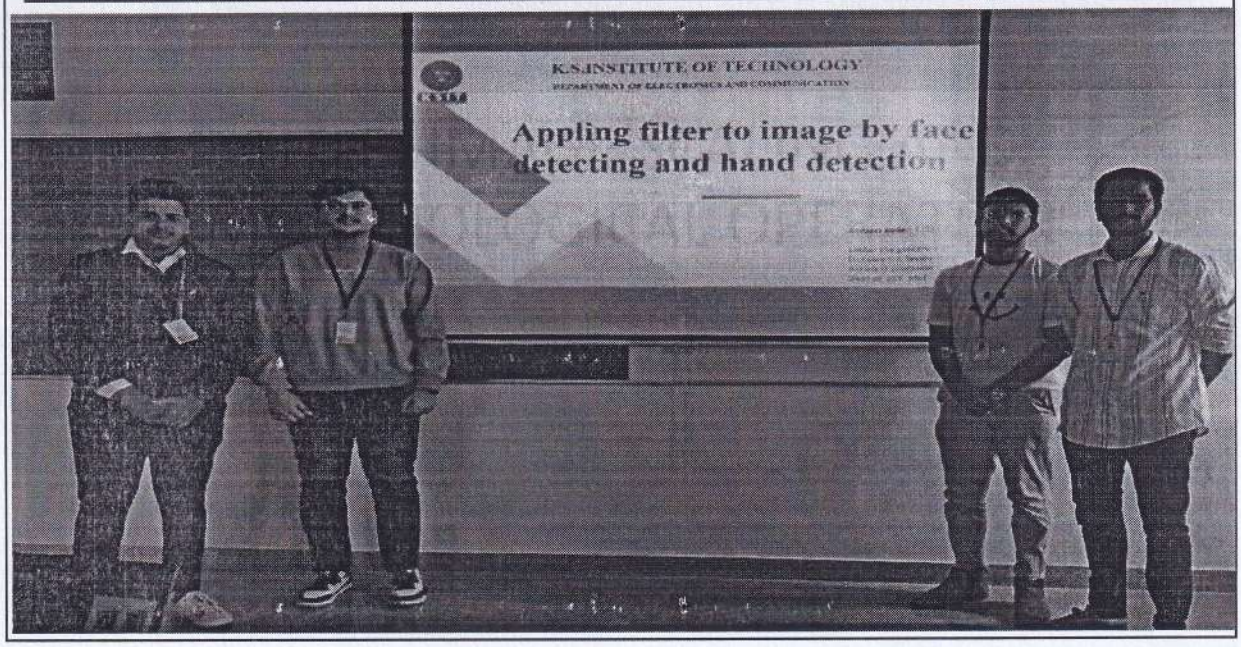
T-24	1KS21EC111	Varsha Jayakumar	The three types of Non Photorealistic Rendering
	1KS21EC072	Rakshith S	
	1KS21EC085	Sanjay G	
	1KS21EC101	Supreeth A	
	1KS21EC103	Sushen Krishnapur	
T-25	1KS21EC073	Rakshitha M R	Implementation of Image Fusion using Wavelet
	1KS21EC099	Suneetha	
	1KS21EC112	Varsha Davaskar	
T-26	1KS21EC075	Rehaman Shariff	Applying filter to image by face detecting and hand detection
	1KS21EC078	S Hari Dhanush	
	1KS21EC087	Sanjay P	
	1KS21EC089	Shaik Arfath	
T-27	1KS21EC077	Rithika M	Automated optical character recognition using Image processing technique
	1KS21EC097	Sripriya H G	
	1KS21EC117	Vidyashree R	
T-28	1KS21EC083	Samhitha Prakash	Lung infection detection using CT scan images
	1KS21EC096	Srilakshmi G	
	1KS21EC105	Tejashree N	
	1KS21EC110	Vaishnavi B A	
T-29	1KS21EC086	Sanjay N	Lane detection for autonomous car using Matlab
	1KS21EC090	Shashank C U	
	1KS22EC405	Hema K	
	1KS22EC409	Soundarya S	
T-30	1KS21EC092	Shwetha V	Human Behavior Analysis using Video Input
	1KS21EC115	Vidya I	
	1KS21EC116	Vidya Rawal D	
T-31	1KS21EC098	Sumukh P	Identifying plant leaf diseases
	1KS21EC104	Tarun M	
	1KS21EC114	Veeresh K N	
T-32	1KS21EC109	Uday Kumar S R	Image Blurring using Python
	1KS22EC402	Sripadreddi B	
	1KS22EC411	Sudeep B	
T-33	1KS22EC407	Prajwal Patil B S	Image Compression
	1KS22EC408	Sangeetha H M	
	1KS22EC410	Sowmya A M	
Proofs (Photographs/Videos/Reports/Charts/Models)			

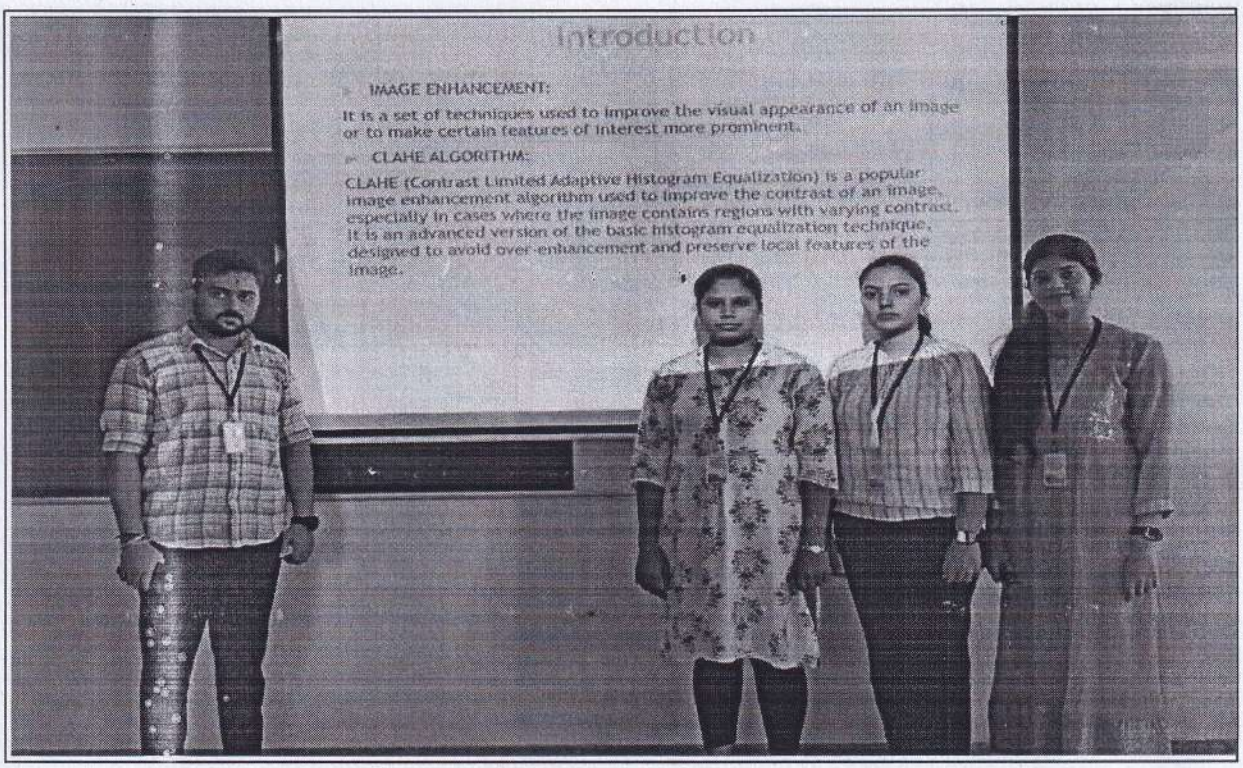
K.S.INSTITUTE OF TECHNOLOGY
Department of Electronics and Communication Engineering
Accredited by NAAC and NBA
#14,Raghuvanahalli,Kanakapura Road,Bengaluru-560109

TITLE: IMAGE SCALING AND MORPHOLOGICAL OPERATION

TEAM MEMBERS
Preetham M-1KS21EC068
Rayadurg Joish Shriya-1KS21EC074
Ritesh Kumar Sinha-1KS21EC076
Vijay Yadav R-1KS21EC118

GUIDED BY
Dr. Saleem S Tevaramani
Assistant Professor,
Dept.ECE , KSIT





Signature of Course In charge

Signature of HOD ECE

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Dept. of Electronics & Communication Engg
K.S. Institute of Technology
Bengaluru - 560 109

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DEARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	Mr. Naveen Kumar S
Course Name /Code	Network Security (21EC742)
Semester/Section	VII A&B
Activity Name	Case Study
Topic Covered	Network Security case study topics
Date	26/11/2024 to 04/12/2024
No. of Participants	123
Objectives/Goals	• To understand the concepts of network security services and its mechanisms • To gain the knowledge of various network security algorithms
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lecture on given topics. • Later students were given a case study topics They had to gather the information about their topics and make a report.	
Relevant PO's	4,10
Significance of Results/Outcomes	• Students put an effort to analyze the given topics.
Reflective Critique	• Students improved their analyzing skills. • Students improved their communication skills by making a report.

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

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belgavi-590018

ACTIVITY BASED REPORT

FOR NETWORK SECURITY (21EC742)

ON

DIGITAL SIGNATURE

Submitted by

NAME	USN
RAKSHITHA M R	1KS21EC073
SUNEETHA	1KS21EC099
VARSHA DAVASKAR	1KS21EC112
SANGEETHA H M	1KS22EC408

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2024-25

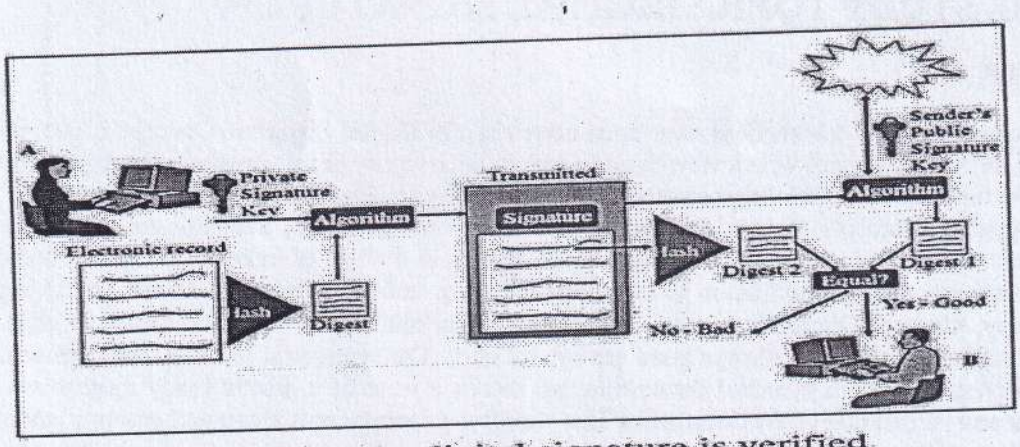

Fig. 3: how the digital signature is verified

The electronic record with the sender's Digital Signature is received by the addressee. The addressee can then test the message digest with the digest received by means of the usage of the sender's public key. If these two digests match, the addressee can be assured that the document has been sent by the sender. In case any adjustments had been made to the report in transit, the digests gained in shape ensuring integrity of the record.

Categories of Digital Signature:

A variety of approaches has been proposed for the digital signature function. These approaches fall into two categories: direct and arbitrated.

Direct Digital Signature

The direct digital signature involves only the communicating parties (source, destination). It is assumed that the destination knows the public key of the source. A digital signature may be formed by encrypting the entire message with the sender's private key or by encrypting a hash code of the message with the sender's private key.

Confidentiality can be provided by further encrypting the entire message plus signature with. either the receiver's public key (public-key encryption) or a shared secret key (symmetric encryption). It is important to perform the signature function first and then an outer confidentiality function. In case of dispute, some third party must view the message and its signature. If the signature is calculated on an encrypted message, then the third party also needs access to the decryption key to read the original message. However, if the signature is the inner operation, then the recipient can store the plaintext message and its signature for later use in dispute resolution.

All direct schemes described so far share a common weakness. The validity of the scheme depends on the security of the sender's private key. If a sender later wishes to deny sending a particular message, the sender

CASE STUDY TOPIC: DIGITAL SIGNATURE

ABSTRACT:

For secure and smart transactions over open networks, the Digital Signature Concept is necessary. It is having forms of programs with a view to make certain the integrity of information exchanged or saved and to show the identity of the originator to the recipient. Digital Signature techniques are usually used in cryptographic protocols to provide services like entity authentication, authenticated key delivery and authenticated key agreement. With using cellular devices as a client of internet, the risk of unauthorized and unauthenticated get admission to of crucial files (e.g. contracts, receipts, and so forth.) is growing every day. Although Digital Signature is supposed to be the solution for the unauthorized get right of entry to, its implementation isn't always good enough till now. The symmetric records transfer mechanism is used for the transfer of essential documents, but there's a want of a greater ready mechanism for safe transfer and verification of the documents. This Research paper presents a comprehensive study of Digital Signature and its benefits

1. INTRODUCTION:

Digital signature or digital signature scheme is a mathematical scheme for demonstrating the authenticity of a digital message or report. A valid digital signature offers a recipient cause to agree with that the message became created by using a recognized sender, and that it turned into now not altered in transit. Digital signatures are normally used for software distribution, financial transactions, and in other instances wherein it's far critical to come across forgery or tampering. In our ordinary lifestyles Internet have become integral parts. Security is an important term in this regard. If serious attack occurs, communication, trade, transaction and other important functions will be affected. Public key cryptography is a shape of cryptography, which usually allows customers to talk securely without having prior access to a shared secret key. This is completed by way of the usage of a pair of cryptographic keys unique as public key and personal key. A public key is essentially like an e mail deal with, and a private key, just like the e mail deal with password. The public key is sent to the receiver, at the same time as the non-public key is not disclosed to absolutely everyone [1]. They are related mathematically. What has been encrypted with the first key can only bedecrypted with the second - and vice versa [4]. Hence, if a desires to ship a comfortable e mail to B, A ought to encrypt it with B's public key, so that when B receives the encrypted e-mail, he can decrypt it the usage of his own private key. When we say, A encrypts the report, what A in reality does is runs this file thru a hash function software. The hash characteristic software program produces a hard and fast duration of alphabets, numbers and logos for any report. This is known as the hash result. [5] [6]. The hashresult is never the equal for two different documents. Any small alteration inside the file will generate a wholly extraordinary hash result. The hash function software will always produce the same hash result of a particular message. Thus, if there may be any doubt about the message being intercepted, all one should do is to examine the hash functions at each ends. Authentication of the digital record will be effected by the use of uneven crypto gadget (that's nothing but the public key cryptography system explained above) and hash function, which envelope and rework the preliminary digital record into any other digital document. A Digital Signature Certificate basically includes the public key of the person who holds it, alongside different details inclusive of contact details, and the most crucial component, this is the digital signature of the

can claim that the private key was lost or stolen and that someone else forged his or her signature. Administrative controls relating to the security of private keys. can be employed to thwart or at least weaken this ploy, but the threat is still there, at least to some degree. One example is to require every signed message to include a timestamp (date and time) and to require prompt reporting of compromised keys to a central authority.

Another threat is that some private key might actually be stolen from X at time T. The opponent can then send a message signed with X's signature and stamped with a time before or equal to T.

Arbitrated Digital Signature

The problems associated with direct digital signatures can be addressed by using an arbiter. They all operate as follows. Every signed message from a sender X to a receiver Y goes first to an arbiter A, who subjects the message and its signature to a number of tests to check its origin and content. The message is then dated and sent to Y with an indication that it has been verified to satisfaction of the arbiter. The presence of A solves the problem faced by direct signature schemes: that X might disown the message.

The arbiter plays a sensitive and crucial role in this sort of scheme, and all parties must have a great deal of trust that the arbitration mechanism is working properly. The use of a trusted system might satisfy this requirement.

CONCLUSION :

The Digital Signature is one of the most secure data during online transactions, over the internet. The digital signature has become a significant tool in international commerce. Further additional businesses will likely use digital signatures in an increasing percentage of their commercial transactions. As a digital signature provides the legal elements of a traditional handwritten signature and upgraded irrespective of the domain specific application of digital signatures, the primary focus is always over the implementation of authentication and integrity of data. Apart from this, non-repudiation, cost efficiency, time efficiency, imposing industry standards, flexibility, etc. had also been taken into account by the researchers. As the client requirements will increase day by day, the new horizon for application of digital signatures using object oriented modelling will get explored. This paper presents the comprehensive information about the digital sign and benefits of same.

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NETWORK SECURITY CASE STUDY TOPICS

Sl No	USN	Name	Team #	Topic	Section
	1KS21EC017	B S BHARGAV	1	Criminal attacks,Publicity attacks and legal attacks	A
	1KS21EC021	CHINTAN D S			
	1KS21EC048	MITHUN C			
	1KS21EC041	Likitha L	2	Program that attacks :1.virus 2.Worms 3.Trojan Horse	A
	1KS21EC001	Aadhya BN.			
	1KS21EC003	Abhishek HC.			
	1KS21EC020	BinduShree S.			
	1KS21EC047	Misba.M	3	Phishing and Pharming	A
	1KS21EC049	MONISHA D			
	1KS21EC061	POOJA R			
	1KS21EC032	Harini.L	4	Applets and Active X controls,Cookies	A
	1KS21EC006	Akshay.C			
	1KS21EC010	Archana.GM			
	1KS21EC013	Ashcharya.NB			
	1KS21EC007	Akshay M S	5	Java security and Java Sandbox	A
	1KS21EC042	Lohit SH			
	1KS21EC043	Lohith B			
	1KS21EC045	Manoj TV			
	1KS21EC023	Chiranth VV -	6	Hash algorithm	A
	1KS21EC033	Hemanth D R			
	1KS21EC055	Nayana J -			
	1KS21EC053	Narahari N Joshi			
	1KS21EC024	D CHARITHAMUTTHULURU	7	Fixed and Ephemeral Diffee-Hellman Algorithm	
	1KS21EC050	SAI HIMAJA			

	1KS22EC404	SHRUJANA G			A
	1AH21EC025	DAMINI S			
	1KS21EC015	B N Jeevan	8	Anonymous Diffee-Hellman Algorithm and Foretezza	A
	1KS21EC028	Gagan V.			
	1KS21EC059	Pavan m pai			
	1KS21EC029	Gagana Sindu N			
	1KS21EC026	Deeksha	9	SSH Port Forwarding and its types	A
	1KS21EC035	Vivek			
	1KS21EC051	Nandan			
	1KS21EC054	Naveen			
	1KS21EC011	ARCHANA M	10	Key detrmination Protocols	A&B
	1KS21EC018	BHAVYA K			
	1KS21EC027	DEEPIKA D			
	1KS21EC062	PRAJWAL D			
	1KS22EC402	B Sreepadreddi -	11	Intrusion Techniques	A&B
	1KS22EC403	Chaitra N -			
	1KS22EC405	Hema K -			
	1KS22EC411	Sudeep P -			
	1KS22EC400	Apoorva B -	12	Firewalls	A&B
	1KS22EC406	Pavan Gowda HP			
	1KS22EC407	Prajwal Patil BS			
	1KS22EC410	Sowmya AM			
	1KS21EC039	Kushal Gowda U	13	Encryption Algorithms	A&B
	1KS21EC038	Komala Nagaraju			
	1KS21EC082	Sai Rahul			
	1KS21EC044	Lohith S			
	1KS21EC063	Prajwal G V:	14	DOS Attacks	B
	1KS21EC081	Sagar G S			
	1KS21EC106	Tharun K V			
	1KS21EC107	Thejas H V			
	1KS21EC078	Hari Dhanush	15	Advanced Encryption Standard(AES)	
	1KS21EC075	Rehaman Shariff-			
	1KS21EC087	Sanjay P-			

	1KS21EC089	Shaik Arfath-			B
	1KS21EC098	Sumukh	16	Pseudorandom Number Generator	B
	1KS21EC104	Tarun M			
	1KS21EC115	Vidya I			
	1KS21EC116	Vidya Rawal D			
	1KS21EC067	Prayag Singh	17	The RSA Algorithm	B
	1KS21EC108	Thushar Cherian			
	1KS21EC113	Varshith S			
	1KS21EC092	SHWETHA V			
	1KS21EC066	Pratham R shanbhag	18	Hash Funnctions	B
	1KS21EC065	prajwal R			
	1KS21EC069	Preksha s			
	1KS21EC084	sanjana			
	(1KS21EC046)	Meghana N	19	MACs based on Hash Functions:HMAC	A&B
	(1KS21EC086)	Sanjay N			
	(1KS21EC090)	Shashank C U			
	(1KS22EC409)	Soundarya S			
	1KS21EC073	Rakshitha M R	20	Digital Signatures	B
	1KS21EC099	Suneetha			
	1KS22EC408	Sangeeta			
	1KS21EC112	Varsha S Davaskar			
	1KS21EC068	Preetham M	21	X.509 Certificates	B
	1KS21EC074	R J Shriya			
	1KS21EC076	Ritesh Kumar			
	1KS21EC118	Vijay Yadav			
	1KS21EC083	SAMHITHA PRAKASH	22	Cloud Computing	B
	1KS21EC096	SRILAKSHMI			
	1KS21EC105	TEJASHREE			
	1KS21EC110	VAISHNAVI B A			
	1KS21EC077	RITHIKA	23	Wireless network Security	B
	1KS21EC097	SRIPRIYA			
	1KS21EC117	VIDYASHREE			
	1KS21EC040	Kusuma.M. S -			

	1KS21EC100	Suneha.S -	24	Security Policy	A&B
	1KS21EC102	Surabhi.K. R -			
	1KS21EC002	Abhijith R	25	Electronic Mail Security	A&B
	1KS21EC058	Omkar N B-			
	1KS21EC095	Spoorthy M U-			
	IKS21EC036	KARAN S			
	1KS21EC080	S. Shajith Ali	26	Public-key Cryptography and RSA	A&B
	1KS21EC120	Vyshak G R			
	1KS21EC121	Yashwanth M			
	1KS22EC400	Adithya D			
	1KS21EC064	PRAJWAL HS	27	Data Protection in cloud	B
	1KS21EC071	RAGHAVENDRA NARAYAN			
	1KS21EC088	SATHYAM KUMAR MANDAL S			
	1KS21EC091	V SHREYAS RAGHAVENDRA			
	1KS21EC070	Punith M	28	Advanced Encryption Standard(AES)	B
	1KS21EC093	Sindhu M Nimbal			
	1KS21EC109	Uday Kumar			
	1KS21EC110	Varsha Jaykumar			
	1KS21EC072	RAKSHITH S	29	Firewalls	B
	1KS21EC085	Sanjay g			
	1KS21EC101	Supreeth.			
	1KS21EC103	Sushen.			
	1KS21EC014	Ashwin S R	30	Java security and Java Sandbox	A
	1KS21EC037	Keerthana S			
	1KS21EC004	Abhishek T			
	1KS21EC005	AISHWARYA A	31	Cloud Computing	A
	1KS21EC019	BHUVANA M			
	1KS21EC056	NAYANA S			
	1KS21EC060	POLURU MANJUNATH	32	ogram that attacks :1.virus 2.Worms 3.Trojan Hor	
	1KS21EC114	VEERESH K N			

		Nayana			A&B
	1KS21EC031	Gurushankara M	33	DOS Attacks	A
	1KS21EC009	Anagha Prakash			
	1KS21EC008	Anirudh R Bhat			

Note:06/12/2024 is the last date to submit Activity reports

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
TEACHING AND LEARNING

CONTENT BEYOND SYLLABUS

Academic Year	2024-25 (ODD)
Name of the Faculty	P Pragati
Course Name/Code	21CS752 – Introduction to AI and ML
Semester/Section	VII (Open Elective)
Activity Name	Course & case study
Topic Covered	All Modules
Date	03/12/2024 to 12/12/2024
No. of Participants	78
Objectives/Goals	➢ To improve the self-learning , analyzing and understanding skills of students ➢ To improve the conceptual and algorithmic skills of students.
ICT Used	Laptop/Desktop/Simulation Tool/ Open resources
Appropriate Method/Instructional materials/Exam Questions ➢ Initially collected concepts on artificial intelligence algorithms. ➢ Later students were formed into groups, assigned with a topic, asked to do the simulation and give oral presentation. ➢ Students are given with additional information/ sources from which they can prepare.	
Relevant PO's	5,8,9,10,12
Significance of Results/Outcomes	➢ Students tried to explore the importance of AI and search strategies, improved their self-learning, conceptual and algorithm understanding skills as an individual and team member. ➢ Students submitted their study in a group of two to eight, to improve their understanding of algorithmic skills.
Reflective Critique	➢ The activity improved the self-learning of students. ➢ The activity provided a platform for students to interact with peers, improve their algorithmic and understanding ability skills.

Team. No	USN	Name	Case Study on
T-1	1KS21EC017	B S Bharghav	1. Uninformed Search Strategies 2. Problem-solving agents
	1KS21EC021	Chinthan DS	
	1KS21EC048	Mithun C	
T-2	1KS21EC005	Abhishek H C	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC018	Bindushree S	
	1KS21EC011	Gurushankara M	
	1KS21EC027	Meghana N	
	1KS21EC036	Karan S	
	1KS21EC062	Prajwal D	
T-3	1KS21EC006	Akshay C	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC010	Archana G M	
	1KS21EC013	Ashcharya N B	
	1KS21EC019	Bhuvana H	
	1KS21EC024	Daggupati charitha	
	1KS21EC032	Harini L	
	1KS21EC061	Pooja R	
	1KS22EC404	Gonuguntla shrujana	
T-4	1KS22EC400	ADITHYA D	1. Problem-solving agents 2. Informed search strategies
	1KS22EC406	PAVANGOWDA H P	
T-5	1KS21EC063	Prajwal G V	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC072	Rakshith S	
	1KS21EC077	Rithika M	
	1KS21EC081	Sagar G S	
	1KS21EC085	Sanjay G	
	1KS21EC097	Sripriya H G	
	1KS21EC101	Supreeth A	
	1KS21EC103	Sushen Krishnapur	
	1KS21EC117	Vidyashree R	
T-6	1KS22EC405	Hema K	1. Problem-solving agents 2. Informed search strategies
	1KS22EC409	Soundarya S	
T-8	1KS21EC002	Abhijith R	1. Uninformed search strategies 2. Informed search strategies
	1KS22EC402	B Sreepadreddi H Bullangoudar	
T-9	1KS21EC083	Samhitha Prakash	1. Informed search strategies
	1KS21EC105	Tejashree N	
T-10	1KS21EC064	Prajwal H S	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC088	Sathyam Kumar Mandal S	
	1KS21EC091	Shreyas Raghavendra V	
	1KS21EC092	Shwetha V	

	1KS21EC104	Tarun M	
	1KS21EC111	Varsha Jayakumar	
	1KS21EC113	Varshith S	
	1KS21EC115	Vidya I	
T-9	1KS21EC044	Lohith S	1. Problem-solving agents 2. Uninformed search strategies
	1KS21EC054	Naveen S	
	1KS21EC071	Raghavendra Narayan Pujar	
	1KS21EC082	Sai Rahul N	
T-10	1KS21EC073	Rakshitha M R	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC099	Suneetha	
	1KS21EC120	Vyshak G R	
	1KS22EC401	Apoorva B	
	1KS22EC407	Prajwal Patil B S	
	1KS22EC408	Sangeetha H M	
	1KS22EC410	Sowmya A M	
	1KS22EC411	Sudeep P	
T-12	1KS21EC015	B N Jeevan	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC028	Gagan V	
	1KS21EC033	Hemanth D R	
	1KS21EC035	Kambhampati Vivek	
	1KS21EC051	Nandan K	
	1KS21EC055	Nayana J	
	1KS21EC056	Nayana S	
	1KS21EC059	Pavan M Pai	
T-14	1KS21EC001	Aadhya B N	1. Problem-solving agents 2. Uninformed search strategies 3. Informed search strategies 4. Heuristic functions
	1KS21EC003	Abhishek H C	
	1KS21EC020	Bindushree S	
	1KS21EC039	Kushal Gowda U	
	1KS21EC041	Likitha L	
	1KS21EC049	Monisha D	
	1KS22EC403	Chaitra N	

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

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

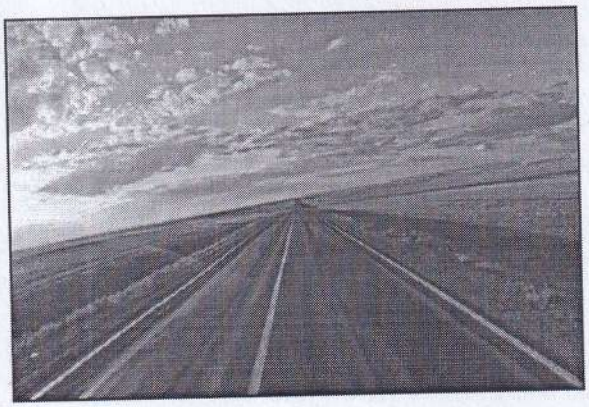
CONTENT BEYOND SYLLABUS

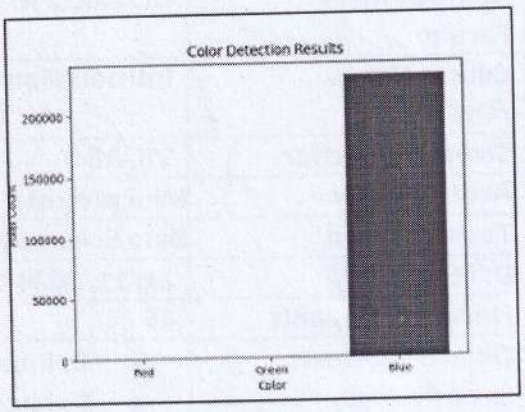
Academic Year	2024-2025
Name of the Faculty	Dr. Electa Alice Jayarani A
Course Name /Code	Introduction to Data Science / 21CS754
Semester/Section	VII/A&B
Activity Name	Mini project
Topic Covered	Data Science projects on recent topics.
Date	21/11/2024 to 05/12/2024
No. of Participants	45
Objectives/Goals	• To improve the concept of data analysis • To improve the use of Python and Google Colab • To improve the communication and ICT usage skills of students
ICT Used	Google Colab, Python, OpenCV
Appropriate Method/Instructional materials/Exam Questions • Initially delivered lecture on use of Google Colab and Python. • Later students were asked to pick any data science topic of their interest, perform the data analysis and prepare the report. • Students are given with additional information/templates, sources from which they can select the topics, prepare, and deliver a report on the same.	
Relevant PO's	8,9,10,11,12
Significance of Results/Outcomes	• Students explored the recent data science projects and performed the data analysis, and the use of modern tools, and improve their self-learning, communication, and project management skills as an individual and team member. • Around 45 Students formed 15 teams, prepared and submitted data analysis project report.
Reflective Critique	• The activity improved the self-learning of students. • 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)

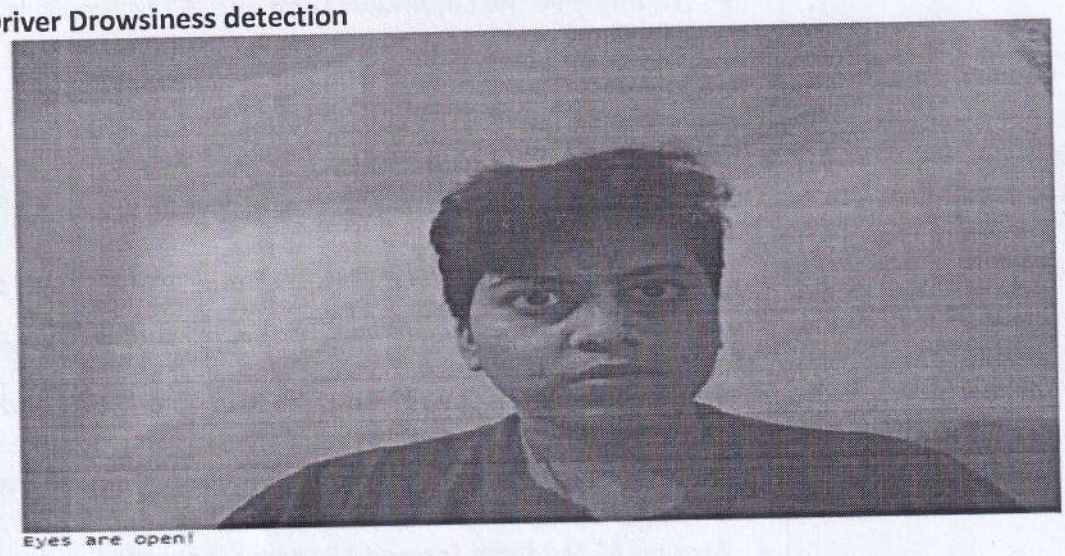
Mini Project results:

1.Color Detection using Pandas and OpenCV

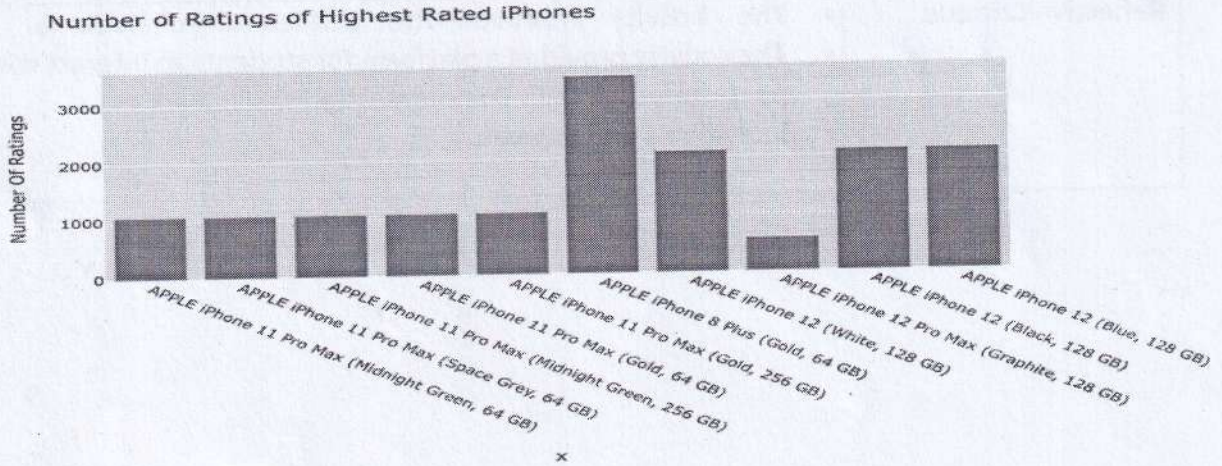




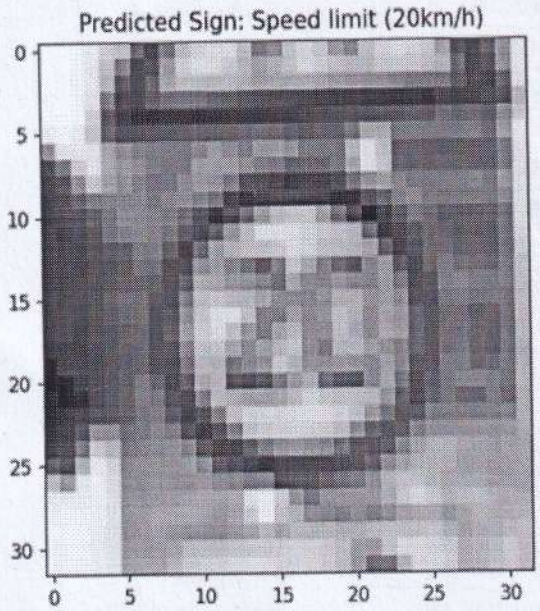
2. Driver Drowsiness detection



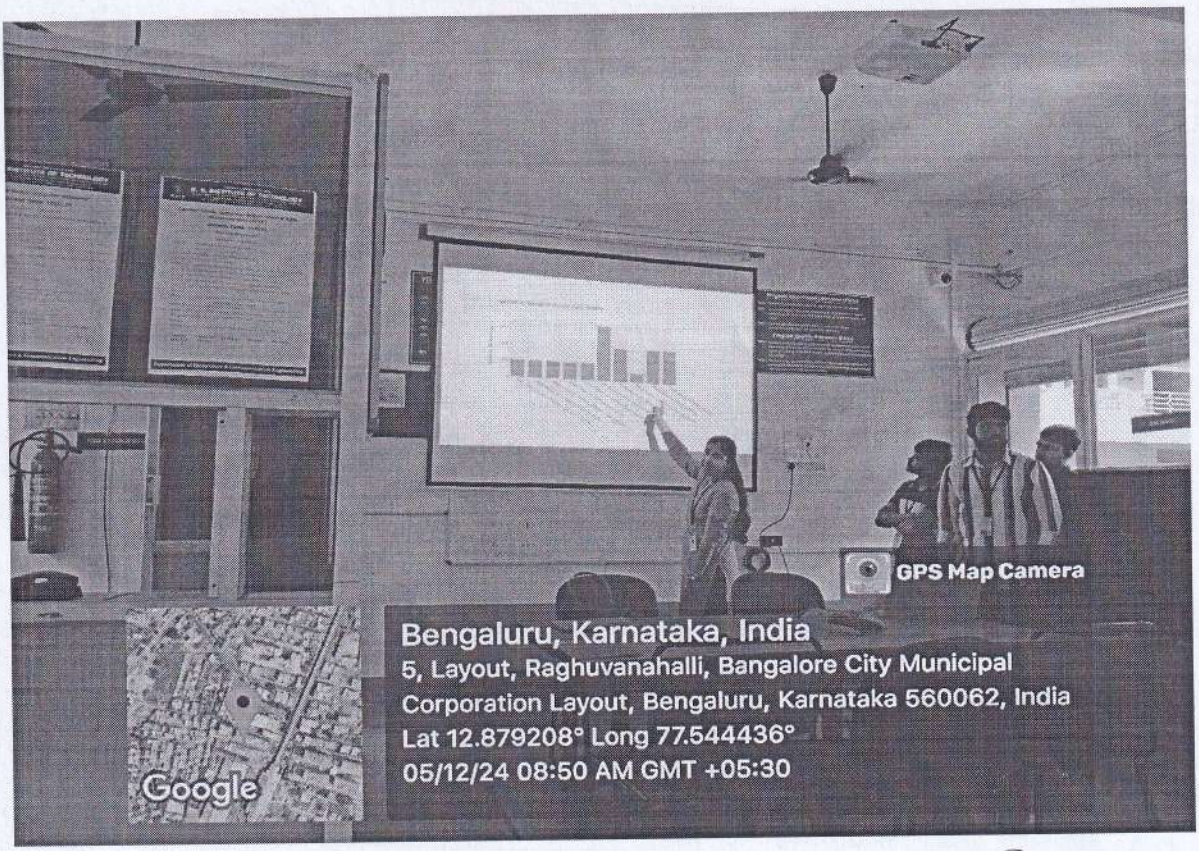
3. iPhone Analysis



4. Traffic sign prediction




```
Test Loss: 0.16674765944480896
Test Accuracy: 0.9601742029190063
1/1 ━━━━━━━━━━━━━━━━━━━━ 0s 92ms/step
Predicted sign: Speed limit (20km/h)
```



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S.No	Batch	USN	Name	Topics
1	1	1KS21EC008	ANAGHA PRAKASH	Colour Detection using Pandas & OpenCV
2		1KS21EC009	ANIRUDHA R BHAT	
3		1KS21EC031	GURUSHANKARA M	
4	2	1KS21EC040	KUSUMA M S	Drowsiness Detection System
5		1KS21EC100	SUNEHA S	
6		1KS21EC102	SURABHI K R	
7	3	1KS21EC075	REHAMAN SHARIFF	Traffic Sign Detection
8		1KS21EC078	S HARI DHANUSH	
9		1KS21EC087	SANJAY P	
10		1KS21EC089	SHAIK ARFATH	
11	4	1KS21EC065	PRAJWAL R	IPL Data Analysis using Jupyter
12		1KS21EC086	SANJAY N	
13		1KS21EC090	SHASHANK C U	
14	5	1KS21EC025	DAMINI S	Movie Recommendation System
15		1KS21EC050	MUTTHULURU SAI HIMAJA	
16		1KS21EC058	OMKAR N BHUJARKAR	
17		1KS21EC080	S SHAJITH ALI	
18	6	1KS21EC046	MEGHANA N	Driver Drowsiness detection system
19		1KS21EC069	PREKSHA S	
20		1KS21EC084	SANJANA V	
21		1KS21EC112	VARSHA S DAVASKAR	
22	7	1KS21EC068	PREETHAM M	iPhone sales analysis
23		1KS21EC074	RAYADURG JOISH SHRIYA	
24		1KS21EC076	RITESH KUMAR SINHA	
25		1KS21EC106	THARUN K V	
26	8	1KS21EC070	PUNITH M	Uber trip data analysis
27		1KS21EC093	SINDHU M NIMBAL	
28	9	1KS21EC026	DEEKSHA H K	Car Price prediction Analysis
29		1KS21EC029	GAGANA SINDHU N	
30		1KS21EC038	KOMALA N	
31	10	1KS21EC047	MISBA M	Color detection using Pandas and OpenCV
32		1KS21EC114	VEERESH K N	
33		1KS21EC121	YASHWANTH.M	
34	11	1KS21EC067	PRAYAG SINGH S	Driver Drowsiness detection system
35		1KS21EC108	THUSHAR CHERIAN	
36	12	1KS21EC098	SUMUKH P	Zomato Data Analysis
37		1KS21EC116	VIDYA RAWAL D	
38	13	1KS21EC014	ASHWIN S R	Car Price Prediction
39		1KS21EC037	KEERTHANA S	
40		1KS21EC066	PRATHAM R SHANBHAG	
41	14	1KS21EC095	SPOORTHY M U	
42		1KS21EC096	SRILAKSHMI G	

43		1KS21EC110	VAISHNAVI B A	Handwritten Digit recognition using Python
44	15	1KS21EC023	CHIRANTH V V	Car Price Prediction
45		1KS21EC053	NARAHARI N JOSHI	

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