



# SRI BHARATHI

ENGINEERING COLLEGE FOR WOMEN

(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)  
Kaikkurichi, Pudukkottai -622 303

[www.sbec.edu.in](http://www.sbec.edu.in)

## NAAC DOCUMENTS



Quality Indicator Frame Work

Criterion – 2

Teaching-Learning and Evaluation

Submitted by

**IQAC**

**Internal Quality Assurance Cell**

**Sri Bharathi Engineering College for Women**



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Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator- 2.3. Teaching- Learning Process (40)**

**2022-2023**

# **ELECTRONICS AND COMMUNICATION ENGINEERING**

## **PROBLEM SOLVING**

<b>Activity</b>	<b>Number of Students attended</b>	<b>Page No.</b>
<b>Tutorial</b>	<b>31</b>	<b>3</b>
<b>TOTAL SUDENTS ATTENDED</b>	<b>31</b>	<b>-</b>



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**Criteria 2**

**Teaching-Learning and Evaluation**

**350**

**Key Indicator- 2.3. Teaching- Learning Process (40)**

**2022-2023**

**ELECTRONICS AND  
COMMUNICATION ENGINEERING  
PROBLEM SOLVING  
TUTORIAL**



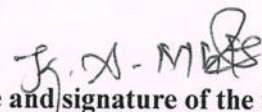
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**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

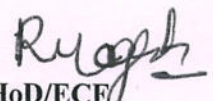
ACADEMIC YEAR (2022-2023)

PROBLEM SOLVING METHOD

LIST OF STUDENTS II YEAR ECE- PROBLEM SOLVING METHOD

SL.NO	REG.NO	NAME	YEAR/SEM	LEARNING METHOD
1.	912621106001	AMRIN M	II/III	<b>PROBLEM SOLVING METHOD- TUTORIAL EC3352-DIGITAL SYSTEM DESIGN</b>
2.	912621106002	BHUVANESWARI C	II/III	
3.	912621106003	DHANYASHREE A	II/III	
4.	912621106004	KALAIVANI R	II/III	
5.	912621106005	KAVIYA K	II/III	
6.	912621106006	KEERTHANA V	II/III	
7.	912621106007	PAVITHRA P	II/III	
8.	912621106008	RAJESHWARI R	II/III	
9.	912621106009	SUBALAKSHMI M	II/III	
10.	912621106010	SUGUNA C	II/III	
11.	912621106301	JAYAPRIYA M	II/III	
12.	912621106301	KIRUBASHINI C	II/III	

  
Name and signature of the faculty Incharge  
(K.A.MUTHULAKSHMI)

  
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Dr. S. THILAGAVATHI M.E., Ph.D.,  
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## Tutorial Answer Sheet

Name of the Student: *M. Jayapriya*

AU Register Number: *91261106301*

Tutorial – 01		Date of Issue:	22.8.22	Marks	10
Course code	EC3352	Course Title	Digital Systems Design		
Year	II	Semester	IV	Date of Submission:	29.8.22

Q.No	Questions	CO
1	Simplify the following Boolean expression in i) SOP ii) POS using karnaugh map $AC'+B'D+A'CD+ABCD$	C206.1
2	Implement the following Boolean function using 4:1 Multiplexer. $F(A, B, C) = \sum(1,2,6,7)$ .	C206.1
3	Design a 1:4 Demultiplexer and mention the applications of a DEMUX	C206.1

### Mark Allocation

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	5
Correctness of Answer	2	2
Timely submission	2	2
Total marks	10	9

Name and Signature of the Faculty Incharge

*(K. A. MUTAHLA KSHMI)*

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ACADEMIC YEAR (2022-2023)

PROBLEM SOLVING METHOD

LIST OF STUDENTS III YEAR ECE- PROBLEM SOLVING METHOD

SL.NO	REG.NO	NAME	YEAR/SEM	LEARNING METHOD
1.	912620106001	ABIRAMI S	III/V	<b>PROBLEM SOLVING METHOD- TUTORIAL EC8501- DIGITAL COMMUNICATION</b>
2.	912620106002	ANUSHYA M	III/V	
3.	912620106003	ARTHI S	III/V	
4.	912620106004	JEYASRI K	III/V	
5.	912620106006	SENPAGAHARINI V	III/V	
6.	912620106007	SONIYA P	III/V	
7.	912620106301	ABITHA S	III/V	
8.	912620106302	DESIKA G	III/V	
9.	912620106303	SABAREESWARI S	III/V	

T.K. 24

Name and signature of the faculty Incharge

[T.K. Mohanapriya]

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**Tutorial Answer Sheet**

Name of the Student: *S. Abitha*

AU Register Number : *912620106301*

Tutorial – 01			Date of Issue:	17.8.22	Marks	10
Course code	EC8501	Course Title	Digital Communication			
Year	III	Semester	V	Date of Submission:	25.8.22	

Q.No	Questions	CO
1	The signal $g(t) = 10 \cos(20\pi t) \cos(200\pi t)$ is sampled at the rate of 250 samples per second. (a) Determine the spectrum of the resulting sampled signal. (b) Specify the cut-off frequency of the ideal reconstruction filter so as to recover $g(t)$ from its sampled version. (c) What is the Nyquist rate for $g(t)$ .	C301.1
2	A BPSK system makes errors at the average rate of 100 errors per day. Data rate is 1 Kbps. The single-sided noise power spectral density is 10 W/Hz. Assume the system to be wide sense stationary, what is the average bit error Probability?	C301.1
3	Construct a single error correcting (7, 4) linear block code and the Corresponding decoding table.	C301.1

**Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	4
Correctness of Answer	2	2
Timely submission	2	2
Total marks	10	8

Name and Signature of the Faculty In charge

*T.K. Mohana Priya*

*[Signature]*  
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**ACADEMIC YEAR (2022-2023)**

**PROBLEM SOLVING METHOD**

**LIST OF STUDENTS IV YEAR ECE- PROBLEM SOLVING METHOD**

SL.NO	REG.NO	NAME	YEAR/SEM	LEARNING METHOD
1.	912619106001	AASHIMA M	IV/VII	<b>PROBLEM SOLVING METHOD- TUTORIAL EC8701- ANTENNA AND MICROWAVE ENGINEERING</b>
2.	912619106002	ANANTHI P	IV/VII	
3.	912619106004	JAFFARNISHA R	IV/VII	
4.	912619106005	MAHESWARI K	IV/VII	
5.	912619106006	MANISHA S	IV/VII	
6.	912619106007	MEGAVADHANA A	IV/VII	
7.	912619106008	PRIYANGA R	IV/VII	
8.	912619106009	RAGAVI V	IV/VII	
9.	912619106010	RAJAPRABA M	IV/VII	
10.	912619106011	SASIKA K	IV/VII	

Name and signature of the faculty Incharge

*V. Nithya Poorani, AP/ECE*  
[V. NITHYA POORANI, AP/ECE]

*R. S. Thilagavathi*  
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**Tutorial Answer Sheet**

Name of the Student: P. Ananthi

AU Register Number 912619106002

Tutorial – 03		Date of Issue:	18.08.23	Marks	10
Course code	EC8701	Course Title	Antenna and Microwave Engineering		
Year	IV	Semester	VII	Date of Submission:	23.08.23

Q.No	Questions	CO
1	An antenna receives a maximum power of $2 \mu\text{W}$ from a radio station. Estimate the maximum effective area if the antenna is located in the far field region of the station where $ E =50\text{mV/m}$	C203.1
2	A Paraboloid reflector antenna is designed for operation at 3000MHz. Its largest aperture dimension is 20 ft. For measurement of radiation pattern, measure the minimum distance between primary and secondary antenna.	C203.1
3	A pyramidal horn antenna having aperture dimensions of $a=5.2 \text{ cm}$ and $b = 3.8 \text{ cm}$ is used at a frequency of 10GHz. Find its gain and HPBW.	C203.1

**Mark Allocation**

Rubrics	Marks Allocated	Marks obtained
Problem solving approach	6	5
Correctness of Answer	2	2
Timely submission	2	2
Total marks	10	9

Name and Signature of the Faculty In charge

*V. Nithya*  
[V. NITHYA POORANI, AP/ECE]

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