

## 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

## **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



(Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)

Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Criteria 2 Teaching-Learning and Evaluation 350

**Key Indicator-2.6. Student Performance and Learning Outcome (90)** 

2.6.2 Attainment of POs and COs are evaluated (20)

### 2019-2020

### **ATTAINMENT EVALUATION OF POS & COS**

# ELECTRONICS AND COMMUNICATION ENGINEERING

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## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING Academic Year (2019 - 2020) PO-PSO ATTAINMENT

PO/PSO	STATEMENT	TARGET	ATTAINED VALUE	ATTAINMENT %
PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.	2.88	2.34	81.24
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences	2.22	1.78	80.38
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.	1.77	1.45	81.95
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.	1.53	1.25	81.39
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.	1.64	1.32	80.61
PO6	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.	1.71	1.53	89.39

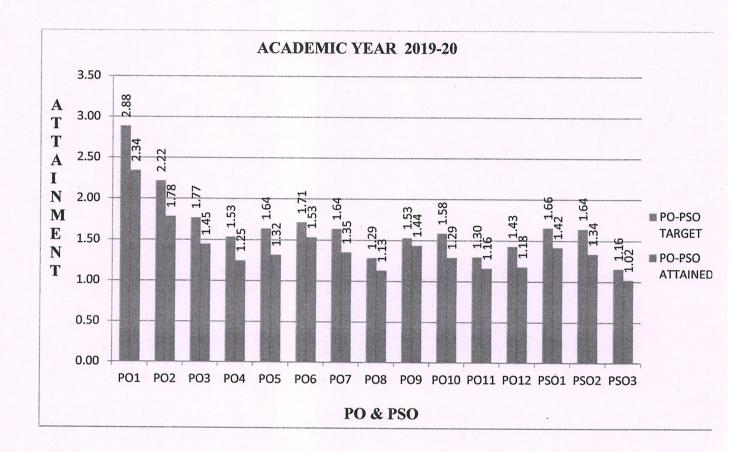
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PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.	1.64	1.35 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	82.60
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.	1.29	1.13	88.20
PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.	1.53	1.44	94.09
PO10	Communication:Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.	1.58	1.29  1.29  1.29	81.46
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.	1.30	1.16	89.53 Shipping
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.	1.43	1.18	82.73
PSO1	Design, develop and analyze electronic systems through application of relevant electronics, mathematics and engineering principles	1.66	1.42	85.59
PSO2	Design, develop and analyze communication systems through application of fundamentals from communication principles, signal processing, and RF System Design & Electromagnetics.	1.64	1.34	81.56
PSO3	Adapt to emerging electronics and communication technologies and develop innovative solutions for existing and newer problems	1.16	1.02	88.11

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# ECE DEPARTMENT ACADEMIC YEAR 2019-2020 CO-PO-PSO ATTAINMENT



HoD/ECE

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Department of Electronics and communication Engineering

Internal Assessment -Attainment of Course Outcomes (Through Direct Assessment) ACADEMIC YEAR - 2019 - 20 BATCH 2017 - 2021 COURSE CODE/TITLE EC8553-Discrete Time Signal Processing COURSE OUTCOME YEAR/SEMESTER TARGET(%) COURSE Mr.S.LIDAYANAN TOTAL STRENGTH COORDINATOR Level Range - 1 UP TO 60% of the students scored more than target ATTAINMENT LEVEL 61 - 79% of the students scored more than target 80% & ABOVE of the students scored more than target IAT 1 - MARKS ALLOTED Assignment / Mini Project /Tutorial / IAT 2 - MARKS ALLOTED IAT 3 - MARKS ALLOTED TOTAL COURSE OUTCOME S.NO REG NO NAME OF THE STUDENT 03 04 05 06 01 02 03 04 05 06 01 C2 C2 C3 C4 C5 C6 C2 C3 C4 C5 C6 C5 CL C2 C3 C4 C6 ABIRAMI S ABISHEKA S 28 41 ATSHAVA R 32 47 3.1 BAVADHARANI A 33 49 BHUVANESHWARI B 28 4 DHIVYAL 36 54 GOWSALYA D NDHUMATHI S 29 44 KANIMOZHI D KAVYAC KEERTHANA G 28 42 MAHESHWARI G 28 42 MANOHARI M 30 44 MARAGATHALAKSHMIS 28 42 SAFRIN NISHA S 30 46 SUBASHINI M 28 41 SUBASHINI T VINTHIYA R CO's Target Value 39.0 Course Outcomes Vs Attainment Level No. of Students scored above CO's Target Value 18 18 Percentage of Students scored above Target 100.0 100.0 100.0 100.0 100.0 100.0 CO Attainment CO attainment Values to plot the Graph

Course Outcomes Vs Attainment Level

4

93.5
3
3
3
3
3
3
3
3
3
3
3
3
4
5
6

Course Outcomes (C1, C2, C3, C4, C5 & C6)

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### SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN **DEPARTMENT OF ECE**

**COURSE OUTCOME ATTAINMENT - UNIVERSITY EXAMINATION** ACADEMIC YEAR: 2019 - 2020(ODD SEM)

YEAR/SEM: III/V

Batch:2017-2021

SUBJECT: EC8553-Discrete Time Signal Processing

CO Attainment Level: 1 - (UPTO 60%) 2- (61%-79%)

3-(80% and Above)

**TOTAL STRENGTH:** 

S.NO	Register No	NAME	Univ. Grade	
1	912617106001	ABIRAMI S	А	
2	912617106002	ABISHEKA S	В	
3	912617106003	ATSHAYA R	B+	
4	912617106004	BAVADHARANI A	B+	
5	912617106005	BHUVANESHWARI B	U	
6	912617106006	DHIVYA L	U	
7	912617106007	GOWSALYA D	В	
8	912617106009	INDHUMATHI S	U	
9	912617106010	KANIMOZHI D	B+	
10	912617106011	KAVYA C	B+.	
11	912617106012	KEERTHANA G	U	
12	912617106013	MAHESHWARI G	U	
13	912617106014	MANOHARI M	В	
14	912617106015	MARAGATHALAKSHMI S	В	
15	912617106017	SAFRIN NISHA S	В	
16	912617106018	SUBASHINI M	U	
17	912617106019	SUBASHINI T	Α	
18	912617106020	VINTHIYA R	B+	
	No.	of O Grade	0	0
		of A+ Grade of A Grade	0	0
	2	2		
	5	5		
	0	0		
	6	6		
	0	0		
	course outcome Atta		60	10
_	ents above the target		7	
O-Attaini	ment University (	(%)	38.89	

Faculty

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Overall Attainment Sheet - COs - POs & PSOs attainment calculation

со	CO-Attainment Internal (CO-INT) (Avg. Attainment of All section) (%)	CO-Attainment University (CO- UNI)  (Avg. Attainment of All section) (%)	Direct CO Attainment (0.20xCO-INT + 0.80xCO-UNI) (%)	CO Attainment Level		
C302.1 ·	100.0	38.89	51.1	1		
C302.2	100.0	38.89	51.1	1		
C302.3	100.0	38.89	51.1	1		
C302.4	100.0	38.89	51.1	1		
C302.5	100.0	38.89	51.1	1		
C302.6	100.0	38.89	51.1	1		

### Expected CO-PO Level

Course	POI	PO2	PO3	PO4	P05	P06	PO7	P08	P09	PO10	POII	PO12	PSO1	PS02	PS03
C302.1	3	3	2	1	1				1	1		1	2	1	-
C302.2	3	3	- 2	1	1				1	1		1	2	1	-
302.3	3	* 3	2	1	1				1	1		1	2	1	
302.4	3	3	2	1	1	-			1	1		1	2	1	-
302.5	3	3	2	1	1	- 3			1	1		1	2	1	-
302.6	3	3	2	1	1	-			1	1		1	3	1	-
C302	3	3	2						1	1			2	1	

				PO Attainment Lev	el										
Course	POI	P02	PO3	PO4	P05	P06	P07	PO8	P09	PO10	POII	PO12	PS01	PS02	PSO3
C302.1	1	1	0.67	0.33	0.33	-			0.33	0.33	-	0.33	0.67	0.33	
C302.2	1	1	0.67	0.33	0.33		7.00	-	0.33	0.33		0.33	0.67	0.33	-
C302.3	1	1	0.67	0.33	0.33			-	0.33	0.33	-	0.33	0.67	0.33	1
C302.4	1	1	0.67	0.33	0.33	-		-	0.33	0.33	-	0.33	0.67	0.33	
C302.5	1	1	0.67	0.33	0.33			2.50	0.33	0.33	-	0.33	0.67	0.33	-
C302.6	1	1	0.67	0.33	0.33				0.33	0.33		0.33	1	0.33	
C302	1	1	0.67	0.33	0.33		-	-	0.33	0.33	-	0.33	0.73	0.33	-
				Attainment of POs and P	SOs:										
Course Code	PO1	P02	PO3	P04	P05	P06	P07	PO8	PO9	PO10	POH	PO12	PS01	PSO2	PS03
C302	3	3	2	1	1				1	1	-	1	2	1	
Attainm	1	1	0.67	0.33	0.33		-		0.33	0.33	-	0.33	0.73	0.33	+

Comments by Program Coordinator	1.	
Remarks by HoD		

[S. UDHAYANAN, APLECE]

Name and Signature of the Faculty Member Dr. S.THILAGAVATHI M.E., Ph.D., PRINCIPAL

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### DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

### **ACTION TAKEN REPORT FOR CO-PO-PSO ATTAINMENT ACADEMIC YEAR 2019-2020**

In order to bridge the gap between the attained level with respect to the target level in each POs and PSOs, the following corrective measures were taken.

S.No	Name of the activity Proposed	Focused POs and PSOs
	Value Added Course(VAC) -	
1	"Emerging Technologies of Bio	PO1,PO2,PO3,PO4,PO5,PO10,PO9,PO12,
	Signal Processing in VLSI"	PSO1,PSO2,PSO3
	Entrepreneurship Development Cell	
2	(EDC)—Women in Manufacturing	PO6,PO7,PO8,PO11
	:Breaking Stereotypes, Building Success	
	Intellectual Property Rights(IPR) –	
3	International Perspectives on IPR	PO6,PO7,PO8,PO11
	Language and Communication	
4	Technology(LCT) - Mastering the Art	PO9,PO10
	of Communication	
	Soft Skill Program – Mastering in	
5	multitasking	PO10
	Life Skill Program-The use of Hand	
6	sanitizer and Face mask	PO8
	Information Communication	
7	Technology(ICT) tools - PHP and	PO5, PO12
	MYSQL: Database Connectivity and	
	Data Manipulation	
	Research Methodology(RM) - Deep	
8	Learning and its Applications	PO1,PO2,PO3,PO4, PSO1,PSO2,PSO3

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