

SRI BHARATHI

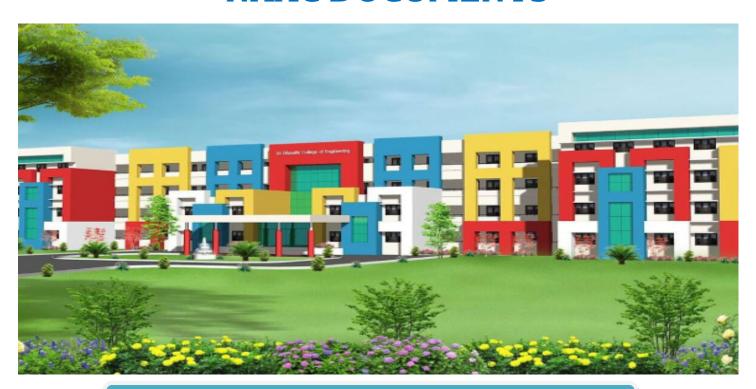
ENGINEERING COLLEGE FOR WOMEN

(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 – 1 CURRICULAR ASPECTS

Submitted by

IQAC
Internal Quality Assurance Cell

Sri Bharathi Engineering College for Women



SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) KAIKKURUCHI, PUDUKOTTAI – 622 303

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2018-2019 / EVEN SEMESTER

1.2 Academic Flexibility (30)

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs, SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

AND

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

VAC Title:		ANTENNA DESIGN USING HIGH FREQUENCY SIMULATION SOFTWARE										
Resource Perso	Maria Academy, Chennai.											
Date of conduct	from:	10.12.201	18	To:	14.12	2.2018	Duration:	30 Hours				
Organized Depa	artment :	ELECTI	RONICS AN	D COM	IMUN	ICATION I	ENGINEERI	NG				
Participant Year: 2,3,4			Semester:	EV	EN	No. of Stud	ents Registered : 50					
Venue: Seminar Hall, ,Ground Floor, SBECW												

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING <u>ACADEMIC YEAR 2018-2019/EVEN SEMESTER</u>

DEPARTMENT CIRCULAR

Value Added Course offered by the Department of ECE will be conducted for all Second, Third and Final year students on "Antenna Design using High Frequency Simulation Software" in association with Maria Academy from 10.12.2018 to 14.12.2018. Certificates will be issued to the eligible participants at the end of the course.

S.No	Name of the Course	Resource Person
1	Antenna Design using High Frequency Simulation Software	Er.A.GANESAN, Software Engineer, Maria Academy, No 58, 17, S Usman Road, Near Bus stand, Kannammapet, T. Nagar, Chennai 600 059. Tamil Nadu . Mail.Id: mariatrainingacademy@gmail.com

Cc:

- Principal Office
- IQAC Coordinator
- Class In charges- II, III &IV Year
- II ,III & IV Year ECE Students
- Notice Board

HOD / ECE
SRI BHARATHI ENGINEERIN(
COLLEGE FOR WOMEN
KAIKKURICHI,
PUDUKKOTTAI - 622 303

Date: 03.12.2018

Dr. S.THILAGAVATHIM.E., Ph.D.,

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING <u>ACADEMIC YEAR 2018-2019/EVEN SEMESTER</u>

Value Added Course on "Antenna Design Using High Frequency Simulation Software"

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to the course and high-frequency simulation software. Review of antenna fundamentals and electromagnetic theory.	2	10.12.2018
2	Overview of various types of antennas and their applications. Introduction to the chosen simulation software and its interface.	1	10.12.2018
3	Modeling simple wire antennas (dipole, monopole) using the simulation software.Radiation pattern analysis and gain calculations.	3	10.12.2018
4	Design and simulation of patch antennas. Understanding bandwidth, polarization, and impedance matching. Simulation of array antennas (linear and planar arrays).	3	11.12.2018
5	Beamforming techniques and phased arrays.	3	11.12.2018
6	Introduction to microstrip antennas and their design using the software.	3	12.12.2018
7	Design and simulation of helical antennas. Circularly polarized antennas and axial ratio.	3	12.12.2018
8	Optimization algorithms for antenna design.	3	13.12.2018
9	Design and simulation of Yagi-Uda antennas and log-periodic antennas.	3	13.12.2018
10	Antenna arrays with non-uniform excitation.	3	14.12.2018
11	Introduction to antenna measurement techniques and validation of simulation results. Understanding measurement errors and calibration.	. 3	14.12.2018
	Total Hours		30

VAC Coordinator

Dr. S.THILAGAVATHI M.E., Ph.D.)

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SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.

HoD/ECE HOD / ECE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI*- 622 303



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

DEPARTMENT OF ELECTRONICS AN COMMUNICATIONENGINEERING ACADEMIC YEAR EVEN SEMESTER (2018-2019)

STUDENT PARTICIPATION LIST FOR VALUE ADDED PROGRAM

Antenna Design Using High Frequency Simulation Software

S.NO	REG.NO	NAME	YEAR & BRANCH
1 308	912617106001	ABIRAMI.S	II & ECE
2	912617106002	ABISHEKA.S	II & ECE
3	912617106003	ATSHAYA.R	II & ECE
4	912617106004	BAVADHARANI.A	II & ECE
5	912617106005	BHUVANESHWARI.B	II & ECE
6	912617106006	DHIVYA.L	II & ECE
7	912617106007	GOWSALYA.D	II & ECE
8	912617106009	INDHUMATHI.S	II & ECE
9	912617106010	KANIMOZHI.D	II & ECE
10	912617106011	KAVYA.C	II & ECE
11	912617106012	KEERTHANA.G	II & ECE
12	912617106013	MAHESHWARI.G	II & ECE
13	912617106014	MANOHARI.M	II & ECE
14	912617106015	MARAGATHALAKSHMI.S	II & ECE
15	912617106017	SAFRIN NISHA.S	II & ECE
16	912617106018	SUBASHINI.M	II & ECE
17	912617106019	SUBASHINI.T	II & ECE
18	912617106020	VINTHIYA.R	II & ECE
19	912616106001	ABINAYA.R	III & ECE
20	912616106002	AGALYA.A	III & ECE
21	912616106003	ATCHAYA.G	III & ECE
22	912616106004	DEEPA.N	III & ECE
23	912616106005	DHARANIYA.A	III & ECE
24	912616106006	JEEVITHA.U	III & ECE
25	912616106007	MAHESWARIA	III & ECE

PRINCIPAL
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Kaikkurchi - 622 303 Pudukkattai De



Coordinator

HOD / ECE

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303.

AGAVATHI M.E. Ph.D.

PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



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KAIKKURICHI, PUDUKKOTTAI-622 303
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
ACADEMIC YEAR EVEN SEMESTER (2018-2019)

ATTENDANCE SHEET FOR VALUE ADDED COURSE- ANTENNA DESIGN USING HIGH FREQUENCY SIMULATION SOFTWARE

S.NO	REG. NO	NAME	YEAR/	10.13	2.2018	11.12	2.2018	12.1	2.2018	13.12	2.2018	14.12	2.2018	NO. OF	SIGN OF
24	01541111000	16FALLEVII	BRANCH	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	F.N	A.N	- SESSIONS ATTENDED	STUDENT
1	912617106001	ABIRAMI.S	II /ECE	1	1	1	1	1	1	1	1	1	1	10	S. Abirami
2	912617106002	ABISHEKA.S	II /ECE	1	1	,	/	1	1	, ,	/	1	1	ro	S. Dha
3	912617106003	ATSHAYA.R	II /ECE	1	1	a	a	1	1	1	1	1	1	8	R. Atal
4	912617106004	BAVADHARANI.A	II /ECE	1	1	1	1	1	1	1	1	1	1	10	& Bavadhini
5	912617106005	BHUVANESHWARI.B	II /ECE	a	a	./	1	1	1	1	1	1	1	8	B-Bhuanegh
6	912617106006	DHIVYA.L	II /ECE	1	1	1	,	1	1	a	1	1	1	9	L. Divyz
7	912617106007	GOWSALYA.D	II /ECE	/	1	,	,	,	1	1	1	,	1	10	D Course
8	912617106009	INDHUMATHI.S	II /ECE	a	1	1	1	1	1	1	1	,	1	9	S. Indhumath
9	912617106010	KANIMOZHI.D	II /ECE	a	1	1	1	1	/	1	1	1	/	9	D. Kanimedi
10	912617106011	KAVYA.C	II /ECE	1	1	/	1	,	1	1	1	1	1	10	C. Karya
11	912617106012	KEERTHANA.G	II /ECE	1	1	1	,	,	/	,)	,	1	,	10	a. Kocethan
		TATUTE STORY AS CETATION		i de la companya de l					/	1	7		1	4 85	Lt.,

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN

912617106013	MAHESHWARI.G	II /ECE	1	9/8	1	1	1	1	1	1	1	1	10	G. Mahemari
912617106014	MANOHARI.M	II /ECE	>	1	1	1	1	,	1	1	/	,	10	M. Mari
912617106015	MARAGATHA LAKSHMI.S	II /ECE	1	1	1	1	a	1	1	1	1	,	9	C. Marazatralus
912617106017	SAFRIN NISHA.S	II /ECE	1	,	1	,	1	1	1	,	1	1	10	S. Saferin Nisk
912617106018	SUBASHINI.M	II /ECE	1	1	,	,	1	,	,	1	,	1	10	M. Subastini
912617106019	SUBASHINI.T	II /ECE	1	,	1	1	1	,	1	1	,	1	10	J. Sulai.
912617106020	VINTHIYA.R	II /ECE	,	1	1	1	1	,	1	,	1	. /	10	R. Vinthing
912616106001	ABINAYA.R	III/ECE	1	1	1	1	,	,	,	,	1	,	10	R. Abinaya
912616106002	AGALYA.A	III/ECE	1	1	1	1	1	,	1	1	1	1	10	t. Agalya
912616106003	ATCHAYA.G	III/ECE	1	1	1	1	,	,	1	1	1	,	10	G. Atchage
912616106004	DEEPA.N	III/ECE	1	1	1	1	1	1.	1	1	1	1	10	N. Peele
912616106005	DHARANIYA.A	III/ECE	1	1	1	1	1	1	1	1	1	1	10	D. Dherry
912616106006	JEEVITHA.U	III/ECE	1	,	,	,	1	1	1	,	1	1	10	V. Feeritu
912616106007	MAHESWARI.V	III/ECE	1	,	1	1	a	a	1	./	1	1	8	V. Malieni
912616106008	PAZHANIYAMMAL.R	III/ECE	1	,	1	1	1	1	1	,	,	,	10	Parter
912616106009	PRIYANKA.E	III/ECE	,	1	1	1	1	1	1	.,	1	,	10	Porganta E
912616106010	ROJA.A	III/ECE	1	1	1	1	1	1	,	1	1	,	10	Do Fa
912616106011	SHANMUGAPRIYA.R	III/ECE	1	1	1	1	1	. /	1	1	1	1	10	Shanplung
912616106012	SHIYAMALA.E	III/ECE	1	1	1	1	/	1	,	/	1	1	10	6 Rost
912616106013	SIVA BHARATHI.P	III/ECE	1	,	,	,	,	1	,	,	,	,	10	P. Sarbhas
	912617106014 912617106015 912617106017 912617106018 912617106019 912617106020 912616106001 912616106002 912616106004 912616106005 912616106006 912616106007 912616106009 912616106010 912616106011 912616106012	912617106014 MANOHARI.M 912617106015 MARAGATHA LAKSHMI.S 912617106017 SAFRIN NISHA.S 912617106018 SUBASHINI.M 912617106019 SUBASHINI.T 912617106020 VINTHIYA.R 912616106001 ABINAYA.R 912616106002 AGALYA.A 912616106003 ATCHAYA.G 912616106004 DEEPA.N 912616106005 DHARANIYA.A 912616106006 JEEVITHA.U 912616106007 MAHESWARI.V 912616106008 PAZHANIYAMMAL.R 912616106009 PRIYANKA.E 912616106010 ROJA.A 912616106011 SHANMUGAPRIYA.R 912616106012 SHIYAMALA.E	912617106014 MANOHARI.M II /ECE 912617106015 MARAGATHA LAKSHMI.S II /ECE 912617106017 SAFRIN NISHA.S II /ECE 912617106018 SUBASHINI.M II /ECE 912617106019 SUBASHINI.T II /ECE 912617106020 VINTHIYA.R II /ECE 912616106001 ABINAYA.R III/ECE 912616106002 AGALYA.A III/ECE 912616106003 ATCHAYA.G III/ECE 912616106004 DEEPA.N III/ECE 912616106005 DHARANIYA.A III/ECE 912616106006 JEEVITHA.U III/ECE 912616106007 MAHESWARI.V III/ECE 912616106008 PAZHANIYAMMAL.R III/ECE 912616106009 PRIYANKA.E III/ECE 912616106010 ROJA.A III/ECE 912616106011 SHANMUGAPRIYA.R III/ECE 912616106012 SHIYAMALA.E III/ECE	912617106014 MANOHARI.M 912617106015 MARAGATHA LAKSHMI.S 912617106017 SAFRIN NISHA.S 912617106018 SUBASHINI.M 912617106019 SUBASHINI.T 912617106020 VINTHIYA.R 912616106001 ABINAYA.R 912616106002 AGALYA.A 912616106003 ATCHAYA.G 912616106004 DEEPA.N 912616106005 DHARANIYA.A 912616106006 JEEVITHA.U 912616106007 MAHESWARI.V 912616106008 PAZHANIYAMMAL.R 912616106009 PRIYANKA.E 912616106010 ROJA.A 912616106011 SHANMUGAPRIYA.R III/ECE / HII/ECE / PII/ECE / PII/ECE	912617106014 MANOHARI.M II /ECE	912617106014 MANOHARI.M 912617106015 MARAGATHA LAKSHMI.S 912617106017 SAFRIN NISHA.S 912617106018 SUBASHINI.M 912617106019 SUBASHINI.T 912617106020 VINTHIYA.R 912616106001 ABINAYA.R 912616106002 AGALYA.A 912616106003 ATCHAYA.G 912616106004 DEEPA.N 912616106005 DHARANIYA.A 912616106006 JEEVITHA.U 912616106008 PAZHANIYAMMAL.R 912616106009 PRIYANKA.E 912616106010 ROJA.A 912616106011 SHANMUGAPRIYA.R III/ECE / / / / / / / / / / / / / /	912617106014 MANOHARI.M 912617106015 MARAGATHA LAKSHMI.S 912617106017 SAFRIN NISHA.S 912617106018 SUBASHINI.M 912617106019 SUBASHINI.T 912617106020 VINTHIYA.R 912616106001 ABINAYA.R 912616106002 AGALYA.A 912616106003 ATCHAYA.G 912616106004 DEEPA.N 912616106005 DHARANIYA.A 912616106006 JEEVITHA.U 912616106007 MAHESWARI.V 912616106008 PAZHANIYAMMAL.R 912616106009 PRIYANKA.E 912616106010 ROJA.A 912616106011 SHANMUGAPRIYA.R III/ECE / / / / / // / / / / / / 912616106012 SHIYAMALA.E III/ECE / / / / / // / / / / / // / / / / /	912617106014 MANOHARI.M II /ECE	912617106014 MANOHARI.M III/ECE	912617106014 MANOHARIM III/ECE	912617106014 MANOHARI.M II /ECE			

SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303 Pudukkattai Di

32	912616106014	SIVARUBINI.S	III/ECE	1	/	/	1	,	/	,	/	/	1	10	Swz.
33	912616106015	THENMOZHI.A	III/ECE	/	/	1	1	1	1	1	1	1	1	10	The
34	912616106016	VINCY.A	III/ECE	1	1	1	1	1	1	1	1	1	,	10	Vency &
35	912616106302	SANKAVI M	III/ECE	1	1	1	1	1	,	1	1	1	1	10	M. Santan
36	912615106001	AARTHI .M	IV/ECE	a	. /	1	1	1	1	1	,	1	1	9	M. gaethi
37	912615106002	ABIRAMI .C	IV/ECE	1	1	1	1	1	,	1	1	1	,	10	Abirami.c
38	912615106004	AKILA .S	IV/ECE	1	1	1	1	1	1	1	1	1	1	10	Akila-S
39	912615106005	ARTHI .M	IV/ECE	1	1	1	1	1	1	1	1	1	,	10	Aothi M
40	912615106006	BAVADHARANI .M	IV/ECE	1	1	/	1	1	1	1	1	1	1	10	Baracon
41	912615106007	DIVYABHARATHI .S	IV/ECE	1	1	1	1	1	1	a	1	1	1	9	Q. Dein Rus
42	912615106008	JAGADESWARI .K	IV/ECE	1	1	/	1	1	1	1	1	1	1	10	Faga dela
43	912615106009	MEENAKSHI .R	IV/ECE	1	1	1	1	1	1	,	1	1	1	10	Mærakes
44	912615106010	MEENAL .T	IV/ECE	1	1	1	1	1	1	/	/	1	1	10	T. Meend
45	912615106012	SARGUNAVALLI.C	IV/ECE	1	1	1	1	1	/	1	1	1	1	10	C. Surgas
46	912615106013	THENMOZHI .K	IV/ECE	1	1	/	1	a	a	1	1	1	,	8	K. Thank
47	912615106014	VENNILA .K	IV/ECE	1	1	1	/	1	1	1	1	1	/	10	Ventina
48	912615106301	MANIMEGALAI .S	IV/ECE	a	1	/	1	1	,	1	/	/	1	9	ten
49	912615106701	SARADHA .S	IV/ECE	1	1	1	1	1	/	,	1	1	1	10	Som Der S
50	912615106702	KAVIYA. S	IV/ECE	1	1	1	1	1	1	1	1	1	,	10	S. Kariya
			•												7

VAC Coordinator

Dr. S.THILAGAVATHI M.E., Ph.D.,
PRINCIPAL

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. HoD/ECE HOD / ECE SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 308.

(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Report on Value Added Course

Title:

Antenna Design using High Frequency Simulation Software

Resource Person:

Mr.A.GANESAN Software Engineer, Maria Academy,

T. Nagar, Chennai 600059.

Date of conduct from:

10.12.2018

To: 14.12.2018

Duration:

30 Hours

Organized Department:

Electronics and Communication Engineering

Participant Year:

2/3/4

Semester:

EVEN

No. of Students Registered:

50

Venue:

Seminar Hall, Ground Floor, SBECW

Outcome of Value Added Course (VAC) : At the end of Course , Students can able to

- Design and or develop a prototype in the area of passive/Active circuits/Antennas.
- Design and analyze various antennas.
- Develops an idea to compare the performance of different types of antennas.
- Develops an insight to optimize different performance parameters of antenna to have more advance performance.
- Creates an interest to design a new form of antenna which can be implemented in specific wireless applications.
- Design and analysis of Microwave Antennas Using HFSS.

No. of students successfully completed the VAC course is <u>50 Students</u> based on the following Assessment process.

Assessment Process

- Students securing more than 60% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = (0.5 *Attendance in VAC out of 100 percentage + 0.5 *Test mark in VAC out of 100 marks)

VAC Coordinator

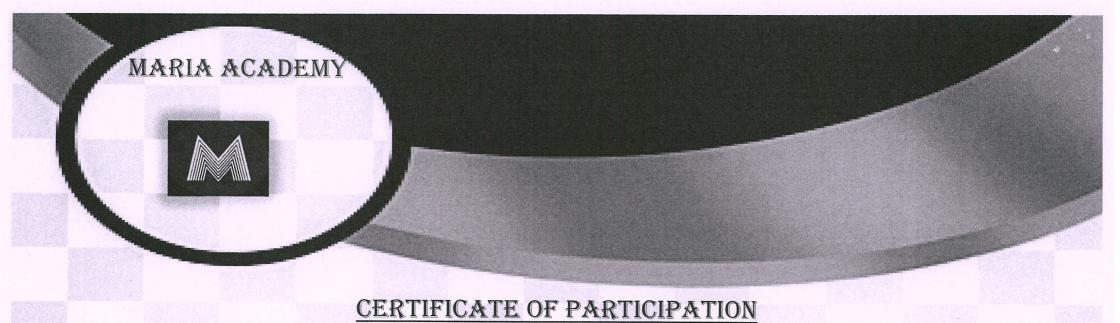
HoD/ECE

HOD / ECE

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN KAIKKURICHI, PUDUKKOTTAI - 622 303 Principal

r. S.THILAGAVATHI M.E., Ph. PRINCIPAL SRI BHARATHI ENGINEERING

COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt.



This certificate recognizes that Ms. BAVADHARANI.A, II YEAR ECE, from Sri Bharathi Engineering College for Women, has successfully completed 5 days Value Added Course on Antenna Design Using High Frequency Simulation Software Conducted from 10.12.2018 to 14.12.2018 during the academic year 2018-2019.

Dr. S.THILAGAVATHI M.E., Ph.D.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. Ganesan RESOURCE PERSON

T. NAGAR, CHENNAI 600059. TAMIL NADU.

MAIL. ID: MARIATRAININGACADEMY@GMAIL.COM



This is to Certify that Mr/Ms. DEEPA.N, III YEAR ECE, from Sri Bharathi Engineering College for Women, has successfully completed 5 days Value Added Course on Antenna Design High Frequency Simulation Software Conducted from 10.12.2018 to 14.12.2018 during the academic year 2018-2019.

Dr. S.THILAGAVATHI M.E., Ph. B.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. Ganesan RESOURCE PERSON

T. NAGAR, CHENNAI 600059. TAMIL NADU.

MAIL. ID: MARIATRAININGACADEMY@GMAIL.COM



CERTIFICATE OF PARTICIPATION

This certificate recognizes that Ms. MEENAL .T, IV YEAR ECE, from Sri Bharathi Engineering College for Women, has successfully completed 5 days Value Added Course on Antenna Design Using High Frequency Simulation Software Conducted from 10.12.2018 to 14.12.2018 during the academic year 2018-2019.

Dr. S.THILAGAVATHIM.E.,Ph.D.,

SRI BHARATHI ENGINEERING **COLLEGE FOR WOMEN**

Kaikkurchi - 622 303, Pudukkottai Dt. T. NAGAR, CHENNAI 600059. TAMIL NADU.

MAIL. ID: MARIATRAININGACADEMY@GMAIL.COM

RESOURCE PERSON



(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India

Name	of	the	Stud	lent	
T 4 CO HILL	UI	LIIL	Diu	UIII	

Year/Sem:

AU Register Number:

Value Added Course on "Antenna Design using HFSS"

\underline{MCQ} QUESTIONS (20X1 = 20 Marks)

1. EIRP in an isotropic antenna stands fo	or	
a)Effective isotropic radiated power b)Equivalent isotropic radiation power	c)Entropic isotropic radiated power d)Equivalent isolated radiated power.	
2. What is the gain factor (in dB) of an isa)1b)0	sotropic radiator in all directions? c)Infinity d)0db	
3. What is the gain factor of an isotropic a)1 b)0	radiator in all directions? c)Infinity d)0db	
4. What is the shape of isotropic radiation	n when observed in 3D?	
a)Doughnut shaped b)Spherical	c)Figure of Eight d)Circle	
5. Isotropic radiation is also known as a)Omni-directional radiation b)Bi-directional radiation	c)Tri- directional radiation d)None of the above	
6. The characteristics of an antenna's radi ways. a)2 b)3 c)4	d)4	number of
7. Transmitting antenna has which of the a)Side lobes are low b)Efficiency is high	following parameter as a basic requirem c)High SNR value d)High SNR value	ent.
8. Which of the following is an equation a)ERP(dBW) = EIRP (dBW) - 2.15dB b)ERP(dBW) = EIRP (dBW) - 3.15dB	c)ERP(dBW) = EIRP(dBW) + 2.1	
9.Radiation patterns can be represented in a)Field patterns b)Power patterns Dr. S.THILAGAVA	c)Both a and b d)Direction pattern	

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10.A 2-D radiation pattern graph contains how man a)2 b)3 c)5	ny coordinates?
11. Antenna can be polarized in ways	
a)3 b)2 c)5	d)1
12. An example of circular polarization is	
a)GPS	c)TV signals
b)Radio wave	d)Mobile communication signals
c)Entropic isotropic indiated power	a)Effective isotropic radiated power
13. Which of the following is the frequency of hor	
a)1 GHz	c)15 GHz
b)10 GHz	d)20 GHz
14.14 (* 6.11; 514 ; 1.4.1.4806)	Ord.
14. Magnetic field in EM wave is plotted on	_ axis.
a) X-axis	c)Z-axis
b) Y-axis	d)Either a or b
15. Units of Poynting vector is . (1)6(1)	
a) W/m2 b) W/m c)m/W	d)wm
remobserved in 3D?	What is the shape of isotropic radiation wi
16. If the wavelength is bigger than the length of d	ipole then it is termed as a type of
dipole.	
a)Infinitesimal dipole	c)Short dipole
b)Long dipole	d)Any of the above
15 Mary 1 1 Consider to the 1974	a)Omni-directional national
17. What is the range of frequency in a V-shaped a	
a)33KHz to 300 GHz	c) 30 MHz to 300 GHz
b)3 to 30 MHz	d)31KHz to 300 GHz
18. What is the beam width for a half wave dipole	antenna?
a) 90°	c) 50°
b) 180° companies plead a sa communici ginero	d) 250°
c)High SNR value	and some some some
19. What is the impedance of the folded dipole ant	enna?
a) 50Ω	c) 300Ω
b) 100Ω	d) 20Ω
20. Which of the following antennas produce a ver	
a) Dipole antenna	c) Marconi antenna
b) Yagi antenna	d) Hertz antenna
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2018-2019/EVEN SEMESTER

Value Added Course on "Antenna Design Using High Frequency Simulation Software"

MCQ ANSWER KEY

1	A	6	В	11	В	16	A
2	D	7	В	12	A	17	В
3	A	8	Α	13	A	18	A
4	A	9	С	14	В	19	С
5	A	10	A	15	Α	20	С

Dr. S.THILAGAVATHI M.E.C.Ph.D.,

PRINCIPAL SRI BHARATHI ENGINEERING

COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt.



Year/Sem: II/V

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(Approved by AICTE, New Delhi, Affiliated to Anna University, Chennai-25) Kaikkurichi, Pudukkottai, Tamil Nadu – 622 303, India Name of the Student: R. Atshaya

AU Register Number: 91261	7106003	
	n "Antenna Design using HFSS"	
MCQ QUESTI	IONS (20X1 = 20 Marks)	
1 EIRP in an isotropic antenna stands for _	An example of circular polarization is	82
(a)Effective isotropic radiated power b)Equivalent isotropic radiation power	c)Entropic isotropic radiated power d)Equivalent isolated radiated power	
2. What is the gain factor (in dB) of an isot a)1 b)0	tropic radiator in all directions? c)Infinity d)0db	
3. What is the gain factor of an isotropic rad a)1 b)0	ndiator in all directions? c)Infinity d)0db	
4. What is the shape of isotropic radiation v	when observed in 3D?	
a)Doughnut shaped b)Spherical	©Figure of Eight d)Circle	
5. Isotropic radiation is also known as a)Omni-directional radiation b)Bi-directional radiation	c)Tri- directional radiation d)None of the above	
6. The characteristics of an antenna's radiati ways.	tion pattern can be represented in number of	
a)2 (b)3 c)4	d)4	
7. Transmitting antenna has which of the fo a)Side lobes are low b)Efficiency is high	ollowing parameter as a basic requirement. c)High SNR value d)High SNR value	
8. Which of the following is an equation for a)ERP(dBW) = EIRP (dBW) - 2.15dBi b)ERP(dBW) = EIRP (dBW) - 3.15dBi	r ERP of an isotropic antenna? c)ERP(dBW) = EIRP (dBW) + 2.15dBi d)ERP(dBW) = EIRP (dBW) * 2.15dBi	
9.Radiation patterns can be represented in to a)Field patterns b)Power patterns	c)Both a and b d)Direction pattern	1
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10.A 2-D radiation pattern graph contains how ma	any coordinates?
(a)2 b)3 c)5	d)1
Coam finer affect penants	
11. Antenna can be polarized in way	S. marries escare
(b)2 c)5	d)1
12. An example of circular polarization is	- and
(a)GPS	c)TV signals
b)Radio wave	d)Mobile communication signals
	anuna anutiliar niamtasi malevamitti
13. Which of the following is the frequency of ho	
(a) I GHz	c)15 GHz
b)10 GHz	d)20 GHz
14. Magnetic field in EM wave is plotted on	axis.
a) X-axis	c)Z-axis
(b) Y-axis	d)Either a or b
WARRIED STATES	
15. Units of Poynting vector is	
(a)W/m2 b)W/m c)m/W	d)wm
Control of the contro	
16. If the wavelength is bigger than the length of	dipole then it is termed as a type of
dipole.	(d
(a)Infinitesimal dipole	c)Short dipole
b)Long dipole	d)Any of the above
17 17 1 1 1 66	MajOmni-directional radiation
17. What is the range of frequency in a V-shaped	
a)33KHz to 300 GHz	c) 30 MHz to 300 GHz
(b)3 to 30 MHz	d)31KHz to 300 GHz
10 371	0)2
18. What is the beam width for a half wave dipole	
(a) 90°	c) 50°
b) 180°	d) 250°
10. What is the impedence of the folded directs on	tanna?
19. What is the impedance of the folded dipole ar	6
a) 50Ω	(300Ω
b) 100Ω	d) 20Ω
20 Which of the following entermos and due a series	outical radiation pattern?
20. Which of the following antennas produce a vo	
a) Dipole antenna	Marconi antenna
b) Yagi antenna	d) Hertz antenna
The state of the s	

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PRINCIPAL
SRI BHARATHI ENGINEERING
COLLEGE FOR WOMEN
Kaikkurchi - 622 303, Pudukkottai Dt



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Name of the Student : $f \in \mathcal{R} \circ \mathcal{J}$	Year/Sem: III / VI	
AU Register Number: 912616	106010	
Value Added Course on	"Antenna Design using HFSS"	
MCO OUESTIC	ONS (20X1 = 20 Marks)	
	20	
1. EIRP in an isotropic antenna stands for _	al Molther Blow and between the block of a A	
a)Effective isotropic radiated power b)Equivalent isotropic radiation power	c)Entropic isotropic radiated power d)Equivalent isolated radiated power	
2. What is the gain factor (in dB) of an isotro		
b)0		
3. What is the gain factor of an isotropic rad	istor in all directions?	
(a) 1	c)Infinity	
AU Register Number: 9126166060 Value Added Course on "Antenna Design using HFSS" MCQ QUESTIONS (20X1 = 20 Marks) 1. EIRP in an isotropic antenna stands for (a) Effective isotropic radiated power b) Equivalent isotropic radiation power d) Equivalent isolated radiated power d) Equivalent isolated radiated power d) Equivalent isolated radiated power a) 1 c) Infinity d) 0db 3. What is the gain factor of an isotropic radiator in all directions?		
4. What is the shape of isotropic radiation w	hen observed in 3D?	
	official games d'	
6. The characteristics of an antenna's radiation	on pattern can be represented in number of	
	d)4	
a)Side lobes are low	owing parameter as a basic requirement. c)High SNR value	
(a)ERP(dBW) = EIRP(dBW) - 2.15dBi	c)ERP(dBW) = EIRP (dBW) + 2.15 dBi	
a)Field patterns	©Both a and b	

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10.A 2-D radiation pattern graph contains how ma (a)2 b)3 c)5	d)1
11. Antenna can be polarized in ways	3.
a)3 (b)2 c)5	d)1
12. An example of circular polarization is	- U.S. II. Company of the control of the Company of
(a)GPS	c)TV signals
b)Radio wave	d)Mobile communication signals
13. Which of the following is the frequency of hor	
b)10 GHz	c)15 GHz d)20 GHz
b)10 GHZ	u)20 GHZ
14. Magnetic field in EM wave is plotted on	axis.
a) X-axis	c)Z-axis
(b) Y-axis	d)Either a or b
Allagator	4)21.11.01 to 0.10
15. Units of Poynting vector is	
(a) W/m2 b) W/m c)m/W	d)wm
TOO BELLEVIS HERE	
16. If the wavelength is bigger than the length of c dipole.	dipole then it is termed as a type of
<a>a)Infinitesimal dipole	c)Short dipole
b)Long dipole	d)Any of the above
no techna tenestra ultra inflico.	rounder lagousembatemUATc
17. What is the range of frequency in a V-shaped	
a)33KHz to 300 GHz	c) 30 MHz to 300 GHz
(b)3 to 30 MHz	d)31KHz to 300 GHz
18. What is the beam width for a half wave dipole a) 90° b) 180°	e antenna? c) 50° d) 250°
nules fixed similar	y (b) is the concept in the h
19. What is the impedance of the folded dipole an	_
a) 50Ω	(Δ) 300Ω
b) 100Ω	d) 20Ω
20. Which of the following antennas produce a ve	ertical radiation pattern? (c) Marconi antenna
b) Yagi antenna	d) Hertz antenna
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a)Field patterns

b)Power patterns

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Name of the Student: 5. SAR	ADHA Year/Sem: TV VIII
AU Register Number: 91261	-
	"Antenna Design using HFSS"
MCQ QUESTIO	ONS (20X1 = 20 Marks)
1. EIRP in an isotropic antenna stands for _	12. An example of effective polarization is
(a) Effective isotropic radiated power b) Equivalent isotropic radiation power	c)Entropic isotropic radiated power d)Equivalent isolated radiated power
2. What is the gain factor (in dB) of an isotro	opic radiator in all directions?
a)1 b)0	c)Infinity ①0db
3. What is the gain factor of an isotropic rad	iator in all directions?
(a) 1 b)0	c)Infinity d)0db
	Wheth Wild Carry
4. What is the shape of isotropic radiation w	hen observed in 3D?
(a)Doughnut shaped b)Spherical	c)Figure of Eight d)Circle
5. Isotropic radiation is also known as	bit.ong dipole
(a)Omni-directional radiation b)Bi-directional radiation	c)Tri- directional radiation d)None of the above
6 The characteristics of an antenna's radiation ways.	on pattern can be represented in number of
a)2 B)3 c)4	d)4
7. Transmitting antenna has which of the foll	Owing parameter as a basic requirement
a) Side lobes are low	c)High SNR value
(b)Efficiency is high	d)High SNR value
8. Which of the following is an equation for	ERP of an isotropic antenna?
(a)ERP(dBW) = EIRP (dBW) $- 2.15$ dBi b)ERP(dBW) = EIRP (dBW) $- 3.15$ dBi	c)ERP(dBW) = EIRP (dBW) + 2.15 dBi
O_j EM ($GDW_j - EIRF(GBW_j - 3.15dB_1)$	d)ERP(dBW) = EIRP (dBW) * 2.15 dBi
9.Radiation patterns can be represented in ter	rms oftypes.

(c) Both a and b

d)Direction pattern

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P	
10.A 2-D radiation pattern graph contains how mar	av coordinates?
a)2 b)3 c)5	
de la company de	(a) I
11. Antenna can be polarized in ways.	
1. Antenna can be polarized in ways.	d)1
a)3 (b)2 (c)3	u)1
12. An example of circular polarization is	
(a)GPS	c)TV signals
b)Radio wave	
b)Radio wave	d)Mobile communication signals
13. Which of the following is the frequency of hori	zontal polarization?
(a) 1 GHz	c)15 GHz
b)10 GHz	d)20 GHz
c) in Griz	d)20 GHZ
14. Magnetic field in EM wave is plotted on	axis.
a) X-axis	_ dxis. c)Z-axis
(b) Y-axis	1일(14) [18] [18] [18] [18] [18] [18] [18] [18]
of 1-axis	d)Either a or b
15. Units of Poynting vector is	0(0
(a) W/m2 b) W/m c)m/W	d)wm
Side in boycoado nady	What is the shape of isotropic radialities
16. If the wavelength is bigger than the length of di	ipole then it is termed as a type of
dipole.	ipole then it is termed as a type of
a)Infinitesimal dipole	c)Short dipole
b)Long dipole	(d)Any of the above
o) Bong dipole	diffing of the above
17. What is the range of frequency in a V-shaped a	ntenna that operates?
a)33KHz to 300 GHz	c) 30 MHz to 300 GHz
(b)3 to 30 MHz	d)31KHz to 300 GHz
To the control of the state of	4/3 11(112 to 300 G112
18. What is the beam width for a half wave dipole	antenna?
(a) 90°	c) 50°
b) 180°	d) 250°
outey, Alva, statistic	4) 250
19. What is the impedance of the folded dipole anto	enna?
a) 50Ω	© 300Ω
b) 100Ω	d) 20Ω
0) 10022 (A) (A) (A) (A) (A) (A) (A) (A) (A) (A)	4) 2022
THE PROPERTY OF THE PROPERTY O	
20 Which of the following antennas produce a ver	tical radiation nattern?
20. Which of the following antennas produce a ver	
	rtical radiation pattern? © Marconi antenna d) Hertz antenna

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PRINCIPAL
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DEPARTMENT OF ELECTRONICS AND COMMUNICATIONENGINEERING **ACADEMIC YEAR EVEN SEMESTER (2018-2019)**

MARK SHEET FOR VALUE ADDED COURSE-ANTENNA DESIGN USING HIGH FREQUENCY

SIMULATION SOFTWARE

013	REGISTER	ARANIYA.A. LAM	YEAR	Attendance (A)				VAC -MCQ TEST (B)		OVERALL MARK(100)
S.NO	NUMBER	NAME	& BRANCH	No.of Sessions Attented	Marks (100)	No.of Correct Answer	Marks (100)	(50% of A + 50% of B)		
1 81	912617106001	ABIRAMI.S	II /ECE	10	100	16	80	90		
2	912617106002	ABISHEKA.S	II /ECE	10	100	18	90	95		
3	912617106003	ATSHAYA.R	II /ECE	8	80	17	85	83		
4	912617106004	BAVADHARANI.A	II /ECE	10	100	14	60	80		
5	912617106005	BHUVANESHWARI.B	II /ECE	8	80	13	65	73		
6	912617106006	DHIVYA.L	II /ECE	9	90	15	75	83		
7	912617106007	GOWSALYA.D	II /ECE	10	100	16	80	90		
8	912617106009	INDHUMATHI.S	II /ECE	9	90	15	75	83		
9	912617106010	KANIMOZHI.D	II /ECE	9	90	15	75	83		
10	912617106011	KAVYA.C	II /ECE	10	100	19	95	98		
11	912617106012	KEERTHANA.G	II /ECE	10	100	₽7 S.T	HIL85GAV	ATHI BBE.,Ph.		
12	912617106013	MAHESHWARI.G	II /ECE	10	100		. 1010	CIPAL ENGIN ÉERING		

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							ويستنبذ والاستنباء	
13	912617106014	MANOHARI.M	II /ECE	10	100	14	70	85
14	912617106015	MARAGATHALAKSHMI.S	II /ECE	9	90	13	65	78
15	912617106017	SAFRIN NISHA.S	II /ECE	10	100	16	80	90
16	912617106018	SUBASHINI.M	II /ECE	10	100	13	65	83
17	912617106019	SUBASHINI.T	II /ECE	10	100	14	70	85
18	912617106020	VINTHIYA.R	II /ECE	10	100	19	95	98
19	912616106001	ABINAYA.R	III /ECE	10	100	18	90	95
20	912616106002	AGALYA.A	III /ECE	10	100	16	80	90
21	912616106003	ATCHAYA.G	III /ECE	10	100	14	60	80
22	912616106004	DEEPA.N	III /ECE	10	100	18	90	95
23	912616106005	DHARANIYA.A	III /ECE	10	100	14	70	85
24	912616106006	JEEVITHA.U	III /ECE	10	100	14	70	85
25	912616106007	MAHESWARI.V	III /ECE	8	80	15	75	78
26	912616106008	PAZHANIYAMMAL.R	III /ECE	10	100	18	90	95
27	912616106009	PRIYANKA.E	III /ECE	10	100	16	80	90
28	912616106010	ROJA.A	III /ECE	10	100	19	95	98
29	912616106011	SHANMUGAPRIYA.R	III /ECE	10	100	12	60	80
30	912616106012	SHIYAMALA.E	III /ECE	10	100	14	70	82
31	912616106013	SIVA BHARATHI.P	III /ECE	10	100	13	65	83
32	912616106014	SIVARUBINI.S	III /ECE	10	100	19	95	98
33	912616106015	THENMOZHI.A	III /ECE	10	100	13	65	83
34	912616106016	VINCY.A	III /ECE	10	100	14	70	85 S.TH

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35	912616106302	SANKAVI M	III /ECE	10	100	14	70	85
36	912615106001	AARTHI .M	IV/ECE	9	90	17	75	83
37	912615106002	ABIRAMI .C	IV/ECE	10	100	18	90	95
38	912615106004	AKILA .S	IV/ECE	10	100	16	80	90
39	912615106005	ARTHI .M	IV/ECE	10	100	15	75	- 88
40	912615106006	BAVADHARANI .M	IV/ECE	10	100	14	70	85
41	912615106007	DIVYABHARATHI .S	IV/ECE	9	90	16	80	85
42	912615106008	JAGADESWARI.K	IV/ECE	10	100	15	75	88
43	912615106009	MEENAKSHI .R	IV/ECE	10	100	17	85	93
44	912615106010	MEENAL .T	IV/ECE	10	100	15	75	88
45	912615106012	SARGUNAVALLI.C	IV/ECE	10	100	13	65	83
46	912615106013	THENMOZHI .K	IV/ECE	8	80	14	70	75
47	912615106014	VENNILA .K	IV/ECE	10	100	18	90	95
48	912615106301	MANIMEGALAI .S	IV/ECE	9	90	15	75	83
49	912615106701	SARADHA .S	IV/ECE	10	100	18	90	95
50	912615106702	KAVIYA. S	IV/ECE	10	100	14	70	85

VAC Coordinator

Dr. S.THILAGAVATHI M.E., Ph.D.,

SRI BHARATHI ENGINEERING COLLEGE FOR WOMEN Kaikkurchi - 622 303, Pudukkottai Dt. HOD/TECE
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