### DEPARTMENT OF ELECTRONICS COMMUNICATION ENGINEERING

13-02-2018

SVCE/EC/Workshop/2017-18

Submitted to the Principal:

Sub: Proposal to organize Two days workshop on "Fundamentals of Electromagnetics, Demonstration and Simulation of RF and Microwave Components using HFSS".

It has been proposed to organize Two days workshop on "Fundamentals of Electromagnetics, Demonstration and Simulation of RF and Microwave Components using HFSS" from 2/03/2018 to 3/03/2018 for faculty and final year PG students. The resource person for the workshop is from Entuple Technologies Pvt Ltd.. Bangalore.

The budget for the workshop is Rs.30,000/-. The Indian Association of Physics Teachers (IAPT) has agreed to provide a sponsorship of Rs.15.000/-. The remaining expenditure will be met with the amount generated towards registration fee collected from the participants. The budget estimate is enclosed for your reference.

Hence, it is requested that the above proposal may be approved.

Dr. S. Muthukumar

HOD - EC

Coordinators

Dr.P. Jothilakshmi, Professor/EC

Mr. P. Muthukumaran, Assistant Professor/EC

Co-coordinators

Ms.B. Hemalatha, Assistant Professor/EC

Ms.C. Gomatheeswari Preethika, Assistant Professor/EC

Mr. B. Nethaji, Assistant Professor/EC

Approved

19/2

### DECLARATION

The above information is true to the best of my knowledge. I agree to abide by the rules and regulations gov- Internal Experts eming the course. If selected, I shall attend the course for the entire duration. I also undertake the responsibility to inform the coordinators in case I am unable to attend the course.

Place:

Signature of the Applicant Date:

### SPONSORSHIP CERTIFICATE

Mr/Ms/Dr is an employee

/ student of our institute and is hereby sponsored. He / She will be permitted to attend the course for the entire duration, If selected.

Office Seal

Signature of the Sponsoring authority

Place:

Date:

Application form completed in all aspects is to be sent to:

#### Dr.P.JOTHILAKSHMI

Professor

Co-ordinator

Dept of Electronics and Communication Engg. SRI VENKATESWARA COLLEGE OF ENGINEERING

> Post Bag No.1, Pennalur Village Chennai - Bengaluru High Road Sriperumbudur Tk. - 602 117 Kancheepuram District TAMIL NADU.

#### RESOURCE PERSONS

Entuple Technologies pvt Ltd, Bangalore &

### ELIGIBILITY

Personnel from AICTE approved Engineering Colleges PG Students, Industry persons and Research Scholars.

#### REGISTRATION

Registration fee: Rs.500

#### HOW TO APPLY

The applicants should send their applications in the specified format along with a DD drawn in favor of "The Principal, Sri Venkateswara College of Engineering", payable at Indian Bank, Sriperumbudur should reach on or before 27.02.2018. If selected, they should confirm their participation as per schedule below.

#### SCHEDULED DATES

Last Date for Receipt of Applications : 27.02.2018 Intimation of Selection by e-mail : 28.02.2018

#### TRANSPORT

The participants can avail the SVCE bus facility to attend this workshop, For transportation details, please refer to our college website.



SRI VENKATESWARA COLLEGE OF ENGINEERING

(Autonomous - Affiliated to Anna University)

(An ISO 9001:2008 Certified College)

CONDUCTS

TWO DAYS WORKSHOP ON

"Fundamentals of

**Electromagnetics**, Demonstration and Simulation of

RF and Microwave Components Using HFSS"

2nd & 3rd March, 2018

Convenor

Dr.S.MUTHUKUMAR, HOD/EC

coordinators

Dr.P.JOTHILAKSHMI, Professor

Mr.P.MUTHUKUMARAN, Assistant Professor

Co-coordinators

Ms.HEMALATHA, Assistant Professor

Ms.GOMATHESWARI, Assistant Professor

Mr.B.NETHAJI, Assistant Professor

Organized by

Dept. of Electronics & Communication Engg.,

Contact Details:

Mobile: 9884606127

Tel: 044-27152000, Ext: 201, 203.

E-mail: jothi@svce.ac.in website: www.svce.ac.in

### Workshop Agenda:

The purpose of this workshop is to focus on fundamental concepts of electromagnetic fields and antenna design. To familiarize 3D full wave HFSS Simulation Software which is used to design high frequency and high speed RF and microwave components.

design high-frequency components found in communiand tablet devices. The technology addresses a wide range of RF and microwave engineering challenges, and meshing feature and resulting high solution accuracy. SVCE is an ISO 9001:2015 certified institution. The end result is the highest-fidelity solution with the best-in-class solution time. HFSS benefits from multiple state-of-the-art solver technologies, allowing users to match the appropriate solver to any simulation need. Each solver is a powerful, automated solution process in which the user specifies geometry, material properties and the desired range of solution frequencies. Based on this input, HFSS automatically generates the most appropriate, efficient and accurate mesh for the simulation, thereby leading to the highest-fidelity solution possible







#### ABOUT THE INSTITUTION

Sri Venkateswara College of Engineering (SVCE), SRI VENKATESWARA COLLEGE OF ENGINEERING one of the Premier Technical Institutions in Tamilnadu, was established in 1985, approved by AICTE New Delhi and affliated to Anna University, chennai has completed 32 years of dedicated and excellent service in Post Bag No.1, Pennalur Village HFSS has been used by RF and microwave engineers to the field of technical education. The College is situated on the Chennai - Bangalore National Highway cation systems, radar systems, satellites, smart phones (NH4) about 37 km south-west of Chennai. The college offers 10 UG programmes and 10 PG programmes. Most of the programmes are accrediated by these applications benefit greatly from the automated The National Board of Accreditation (NBA) and

### ABOUT THE DEPARTMENT

The Electronics and Communication Engineering department occupies a prominent place in the chronicles of its academic history. The specialization of the faculty includes Telecommunication engineering, Computer Networks, Control Systems, VLSI, Digital Signal Processing, Microwave Systems, Applied Electronics, Department: Microprocessor and Micro Controllers etc. The depart- Educational ment has excellent laboratory facilities in the areas like Networking, Microprocessors & Microcontrollers, Electronic Devices, Communication, RF, Microwave, VLSI, Age: Digital Signal Processing, Applied Electronics, with our Organization: latest software. The department offers four year UG programme in ECE and two year PG programmes in Communication Systems and Applied Electronics. The department is a approved research center by Anna Uni- Communication: versity. Around 45 Research scholars are pursuing their E-mail ID: full time and part time Ph.D in the research center.

(Autonomous - Affiliated to Anna University)

Chennai - Bengaluru High Road

Sriperumbudur Tk. - 602 117

Kancheepuram District, TAMIL NADU.

#### Conducts

Two days workshop on

"Fundamentals of

Electromagnetics, Demonstration and Simulation of RF and Microwave Components Using HFSS"

2nd & 3rd March, 2k18

#### APPLICATION FORM

Qualification:

Designation:

Address for

Mobile Number:

Signature of the

Signature of the

Sponsoring Authority

Applicant





DEPARTMENT OF ECE

TWO DAYS WORKSHOP ON FUNDAMENTALS OF ELECTROMAGNETICS,
DEMONSTRATION AND SIMULATION OF RF AND MICROWAVE COMPONENTS USING
HFSS

### PROGRAMME SCEHDULE

### DAY 1

DATE / VENUE	TIME	PROGRAMME		
		PRAYER SONG		
	9.00AM – 10.00AM	WELCOME ADDRESS		
02.03.2018 VIDEO HALL		INAUGURATION		
VIDEOTELLE		INTRODUCTION OF CHIEF GUEST		
		HOD ADDRESS		
02.03.2018	10.00AM - 10.15AM	TEA BREAK		
02.03.2018 VIDEO HALL 10.15AM – 12.00PM		<ul> <li>HFSS INTRODUCTION,</li> <li>HIGH FREQUENCY STRUCTURAL SIMULATIONA</li> <li>AND ANALYSIS BASICS- TOOL FLOW,</li> <li>DESIGN OF MICROSTRIP PATCH ANTENNA</li> </ul>		
02.03.2018	12.00PM - 12.45PM	LUNCH BREAK		
02.03.2018 VIDEO HALL	12.45PM – 3.15PM	<ul> <li>SIMULATION OF AN EDGE FEED MICROSTRIP PATCH ANTENNA IN HFSS,</li> <li>POST-PROCESSING AND OPTIMIZATION OF THE PATCH ANTENNA</li> </ul>		
		> APPLICATIONS OF HFSS.		



### DAY 2

DATE / VENUE	TIME	PROGRAMME		
03.03.2018 VIDEO HALL	9.00AM - 10.30AM	SESSION BY Dr. P.JOTHILAKSHMI PROFESSOR/ECE		
03.03.2018	10.30AM - 10.45AM	TEA BREAK		
03.03.2018 VIDEO HALL	10.45AM – 12.15PM	SESSION BY Ms. B.HEMALATHA ASSISTANT PROFESSOR/ECE		
02.03.2018	12.15PM – 1.00PM	LUNCH BREAK		
02.03.2018 1.00PM - 2.30PM		SESSION BY Mr.P.MUTHUKUMAR ASSISTANT PROFESSOR/ECE		
		FEEDBACK FROM THE PARTICIPANTS		
02.03.2018 VIDEO HALL	2.45PM-3.15PM	CERTIFICATE DISTRIBUTION		
		VOTE OF THANKS		

Distribur.

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Dr. P. JOTHILAKSHMI

Professor
Electronics and Communication Engineering
Sn Venkateswara College of Engineering
Pennatur, Seperimbedur - 502 117

Department of Electronics and Communication Engineering
Two days Workshop on "Fundamentals of Electromagnetics, Demonstration and Simulation of RF and
Microwave Components using HFSS" from 02.03.2018 and 03.03.2018.

	SI. No.	Name of the participants	College Name	Mail id	Mobile number	Signature
ワワー>	1	R. SRILAKAHHI	REC, THANDALAM	Stilakshu. pravin@gmail.	8939998842	4
	2.	A-Prem Humar	AAIST	aph 641855@ gmail.com	950047 8049	1 Dhy
/	3.	Sivetin	AAAST	Verniece s 8 a Ogmail . Com	9894505951	Mot.
/	4.	N. VARNICHA	SVIE	Varnilavidesh agmail.	9500244 851	Van.
1	5.	RaamkumaarT	SUCE	en aamk 1007 Qgmai l. com	9789851561	The
	6.	Pradhana Mounkumar	SVCG	moun kumes predhani @ zgmaile	9791563560	Gelly
	7	Parvatala Prasanth	SUCE	sparkeyer@ gmail.com	80562 43363	y. Uw
-	8	V-Ventataramanan	Thomdalam	Venkotera monon 32 agmoil com	9043231089	V. Vyer:
	9	D. Vidlya	SVCE	vidhja devacce@gmiliem	8220827287	D. V-4
1	10	Sebastian Apolusti	8vee	separ transashish @ gmeil com	8939558387	deship.
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	12.	G. usha	CIT	ushashanthius@mail.com	8056958139	dh

Department of Electronics and Communication Engineering
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S	il. No.	Name of the participants	College Name	Mail id	Mobile number	Signature
ti	13	acchaileaga.	CIT	cchowdary 222@gmail.com	7418203173	cts+
1	14.	N.K.SRINIVAJAN	CIT	Srinivasannkece@gmail.com	7845434169	Mhline
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	17.	Sarath Kumar - J	LIT .	Sarath1471998@gmail. com	9994321141	Lidual.
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ļ	19.	A.Bharathi priya	SVCE	bharathipiya@ Gre-arin	9840847247	Males
	20.	M. Rekna	SUCE	Sekham @svce.ac.in	7871562562	RIL
	21.	A. Sivationan	SVOF	Sivagocor @ gneil-Com	9941932024	A. D.Tz
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Sl.	Name of the participants	College	Mail id	Mobile number	Signature
No.		Name			
25	N.V. Laxminavayen	SVCE	nulnarayeurs @ gmail.a	9543853644.	Kj
26	T.S. Priyadharshini	SUCE	young Switha @ gmail.a	9962989441	BRA
27	R. MOHANA SUNDARAM	Suce	msundaramy@gmailicom	9994275735	Rloheary
28	S. RoothiAP-FC.	SUCE	rethie suce anin	9940376515	S. Rett
29	Dr. T. V. PACHAVATHY	RMKEL	typeson a grail com	9962552691	Fur
- 30	Prem Kumau. H	RMNEC	premkumarizon 007 agmaile	9884141179	W. 5-15
3	1. K. PRAVEEN KUMAR	RMKEC	Praveen kumarocepk@gmai.co	8807485850	Epal
3:	2 Michael Nadin A	RMKEC	nadinnichael15235@gmail.com	9952813316	100
7	3 Taxun Kumon	RMKEC	favunkumar 2498@gmail.com	9047517133	anh
13	4 Rokesh . B	RMICEC	rokeolo4@amail.com	9884959960	B. kel-
3	Manashini P.S.	RMKEC	nahachini.ps@ gmaila	7010259669	28
3	86. S. Manisha	RMKEC	manishasinivasan26@	9445175614	Mal-s

Department of Electronics and Communication Engineering
Two days Workshop on "Fundamentals of Electromagnetics, Demonstration and Simulation of RF and
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Sl. No.	Name of the participants	College Name	Mail id	Mobile number	Signature
32	G. Loganathan	2127 - SVCE	logarathang Dsice acn	9994778512	day
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#### DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

A Report on Workshop on Fundamentals of Electromagnetics, Demonstration and Simulation of RF and Microwave Components using HFSS

Two days Workshop on "Fundamentals of Electromagnetics, Demonstration and Simulation of RF and Microwave Components using HFSS" in association with Entuple Technologies was organized by ECE Department during 02/03/2018 and 03/03/2018. The workshop started with a prayer song. Dr.S.Muthukumar, HOD-EC inaugurated the workshop by lightening the Kuthu-Vilakku. The Welcome address was given by our HOD. The Chief Guest introduction was given Dr.P.Jothilakshmi, Professor, ECE, SVCE.

The key note address on HFSS Introduction, Tool flow was given by Mr.K.Karthikeyan, Field Application Engineer-HF, Entuple Technologies, Bangalore. Post lunch he simulated an Edge Feed Microstrip Patch Antenna in HFSS and discussed about post processing and its optimization. The day concluded with presentation of the memento to the chief guest by Dr.S.Muthukumar, Head of the Department, ECE.



The second day had three sessions. The forenoon session was handled by Dr.P.Jothilakshmi, Professor, ECE, SVCE on "Fundamentals of Antenna parameters and Designs". The session was useful to recollect the basics of antenna.



Followed by this session, "Hands-on training using HFSS" was given by Ms.B.Hemalatha, Assistant Professor, ECE, SVCE. Design of Micro strip patch antenna for various frequencies was simulated. Post lunch the session on "Essentials and Derivation of Maxwells Equations" was taken by Mr.P.Muthukumaran, Assistant Professor, ECE SVCE.



The Valedictory Address was given by our HOD, followed by certificate distribution to the participant. The Vote of Thanks was given by Mr B.Nethaji, Assistant Professor,ECE. Finally the event was completed with National Anthem.

EVENT COORDINATOR

Dr.P.Jothilakshmi, Professor, ECE Dept,SVCE HoD/ECE

Dr.S.Muthukumar

### SRI VENKATESWARA COLLEGE OF ENGINEERING DEPARTMENT OF ECE

### Two days Workshop on "FUNDAMENTALS OF ELECTROMAGNETICS, DEMONSTRATION AND SIMULATION OF RF AND MICROWAVE COMPONENTS USING HFSS" (2nd & 3rd March 2018)

### Participants Feedback Form

Date: 03/03/2018

Name of the Participant

: V. Venkata Ramanan

Designation

: ME

Institution

: Raja la kshmi Enginaening coilege

Contact Address

: REC, Thorndalam.

Email id

: Venicataramoran 32@gmail.com

Hospitality

: Good

Organization of the Program

very Good.

Any other comments

: Really a useful workshop to gam

knowledge about HPSS and antenna second day is more interesting than this day

Signature

: V. Vigas

### SRI VENKATESWARA COLLEGE OF ENGINEERING DEPARTMENT OF ECE

### Two days Workshop on "FUNDAMENTALS OF ELECTROMAGNETICS. DEMONSTRATION AND SIMULATION OF RF AND MICROWAVE COMPONENTS USING HFSS" (2nd & 3rd March 2018)

### Participants Feedback Form

Date: 03/03/2018

: R. SRILAKSHMI Name of the Participant

: RESEARCH SCHOLAR Designation

: RAJALAKSHEII ENGINSERING Institution

COLLEGE, THANDALAM

Contact Address

: Srilakshu. pravin@ gmail.com Email id

: Vory good. Hospitality

: very much weeful. Organization of the Program

Any other comments: with Entuple technologies,

J got the over all idea about HESS S/w. Today's

Session on antenna basics was very informative.

The hands on training on designing patch antenna
was halpful. It will be very much halpful if we have more
was halpful. It will be very much halpful if we sessions on

Signature:

HESS/CST.

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