

VAC Name: DESIGN & ANALYSIS OF MICROSTRIP PATCH ANTENNA USING HFSS

COURSE CODE: ET-VA-13



Subharti Institute of Technology and Engineering
Swami Vivekanand Subharti University, Meerut
(Approved by AICTE)

Subhartipuram, NH-58 Delhi-Haridwar Bypass Road, Meerut-250005 (U.P.)
Ph.: 0121-2439157, Ext. 2222, 2221, Fax: 0121-2439108

E-mail: principal.site@gmail.com, principal.engg@gmail.com, Website: www.subharti.org



VALUE ADDED COURSES

SESSION : 2018-19

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USING HFSS

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1. BROCHURE

**DESIGN AND ANALYSIS OF MICROSTRIP PATCH ANTENNA
USING HFSS SOFTWARE**

A VALUE ADDED COURSE
ORGANIZED BY

THE DEPARTMENT OF
ELECTRONICS & COMMUNICATION ENGINEERING
SUBHARTI INSTITUTE OF TECHNOLOGY AND ENGINEERING
SWAMI VIVEKANAND SUBHARTI UNIVERSITY, MEERUT

FOR REGISTRATION CONTACT
FACULTY COORDINATOR:
ER. ABHISHEK KUMAR
(PH:8538927431)

NO REGISTRATION CHARGES

Signature





Subharti Institute of Technology and Engineering
Swami Vivekanand Subharti University, Meerut
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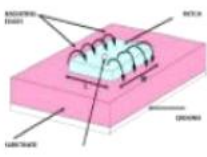


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2. REGISTRATION FORM:

<p>REGISTRATION ELIGIBILITY</p> <p>For all UG-PG students of ECE, EEE, CS/IT</p> <p>No registration fees.</p> <p>HOW TO REGISTER</p> <p>Interested participants should send their duly completed registration form through their respective Head of the Departments to Mr. Abhishek Kumar, Asst. Prof., ECE for registering their names as a participant in the "VALUE ADDED COURSE ON DESIGN AND ANALYSIS OF MICROSTRIP PATCH ANTENNA USING HFSS SOFTWARE" organized by Department of Electronics & Communication Engineering, SITE, SVSU, Meerut. The participants need to submit individual entry forms.</p> <p>IMPORTANT DATES</p> <p>Last date for receipt of application: 1st March 2019</p> <p>Last date for acceptance notification: 2nd March 2019</p> <p>VENUE</p> <p>Room no 210, 1st floor Subharti Institute of Technology and Engineering, SVSU, Meerut</p>	<p>PATRONS</p> <p>Dr. Manoj Kapil, Principal, SITE</p> <p>CONVENER</p> <p>Er. Amit Kumar HoD, ECE</p> <p>COORDINATOR</p> <p>Er. Abhishek Kumar, Asst Prof(ECE), SITE Mob: +91 85389 27431 Email: abhishek02@gmail.com Er. Supratim Saha, Asst Prof(ECE), SITE Mob: +91 86004 38215 Email: supratim.saha2000@gmail.com</p> 	<p>VALUE ADDED COURSE ON DESIGN AND ANALYSIS OF MICROSTRIP PATCH ANTENNA USING HFSS SOFTWARE</p> <p>4th March 2019-3rd May 2019</p>  <p>Organized by: Department of Electronics & Communication Engineering, Subharti Institute of Technology and Engineering</p>  <p>SWAMI VIVEKANAND SUBHARTI UNIVERSITY MEERUT</p>
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Signature

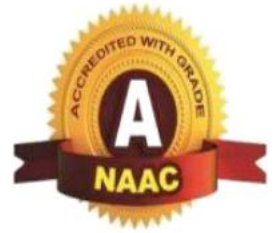




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ABOUT HFSS SOFTWARE

HFSS(High Frequency Structure Simulator) is a high-performance full-wave electromagnetic (EM) field simulator for arbitrary 3D volumetric passive device modeling that takes advantage of the familiar Microsoft Windows graphical user interface. It integrates simulation, visualization, solid modeling, and automation in an easy-to-learn environment where solutions to your 3D EM problems are quickly and accurately obtained.

Ansoft HFSS is the tool of choice for high-productivity research, development, and virtual prototyping. Typical uses include:

- PCB Board Modeling - Power/Ground planes, Mesh Grid Grounds, Backplanes
- Silicon/GaAs - Spiral Inductors, Transformers
- EMC/EMI - Shield Enclosures, Coupling, Near- or Far-Field Radiation
- Antennas/Mobile Communications - Patches, Dipoles, Horns, Conformal Cell Phone Antennas, Quadraflar Helix, Specific Absorption Rate(SAR), Infinite Arrays, Radar Cross Section(RCS), Frequency Selective Surfaces(FSS)
- Connectors - Coax, SFP/XFP, Backplane, Transitions
- Waveguide - Filters, Resonators, Transitions, Couplers
- Filters - Cavity Filters, Microstrip, Dielectric



COURSE OBJECTIVE

- To understand all the basic concept of antenna.
- To calculate the various mathematical parameters of microstrip patch antennas such as width, length, microstrip feed line, thickness etc.
- To analysis the various characteristics like VSWR, Return loss, Gain, Bandwidth, Radiation pattern etc.
- Concise description of how to design an antenna for a particular range of frequency.

Course Content

- Introduction to antenna and its various parameters
- Introduction to Microstrip patch antenna
- Introduction to HFSS Tutorial
- Designing on HFSS software

Course Duration

20 hours

SUBHARTI INSTITUTE OF TECHNOLOGY
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NH-58, Delhi-Haridwar Bypass Road
Subhartipuram, Meerut, Uttar Pradesh, 250005



VALUE ADDED COURSE

ON
DESIGN AND ANALYSIS OF MICROSTRIP PATCH
ANTENNA USING HFSS SOFTWARE

Organized By

Department of Electronics & Communication
Engineering

4th March 2019-3rd May 2019

REGISTRATION FORM

1. Name of Participant: _____

2. Department: _____

3. Year & Sem: _____

4. Phone Number: _____

5. Email: _____

I undertake to abide by the rules and regulations of the competition imposed by the organizing Department and will participate with utmost discipline for the same.

Date: _____ Signature of Applicant



REPORT ON VALUE ADDED COURSE ON DESIGN AND ANALYSIS OF MICROSTRIP PATCH ANTENNA USING HFSS SOFTWARE

ET VA 13

Ansoft HFSS is the tool of circuits for high productivity research, development and virtual prototyping
Typical uses include:

1. PCB Board Modeling
2. EMC/EMI
3. Antenna/Mobile Communication

Agenda

- Introduction to Antenna and its various parameters
- Introduction to Microstrip Patch Antenna
- Radiation Pattern

Pre-requisite:

1. Knowledge of basics of Antenna Theory
2. HFSS Tool

Tools Support:

Ansoft HFSS Tool

Objective of value added course on design and analysis of micro strip patch antenna using HFSS software

1. Students will be able to understand the working principle of different antenna
2. Students will be able to design wire antenna and micro strip antenna using HFSS
3. Students will be able to understand the different feeding technique
4. Students will be able to design wire antenna Microstrip antenna and Microstrip based filters using HFSS EM simulator

End Note:

It was a great experience for students to learn the all concept of HFSS Software and Microstrip Patch Antenna .They enjoyed and learnt a lot from the session.


Registrar
Swami Vivekanand
Subharti University
MEERUT



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LIST OF STUDENTS

S.NO.	ENROLL NO.	NAME OF STUDENTS
1.	1401078803051	ANKUR MALIK
2.	1601010000232	CH. SURAJ PRATAP SINGH
3.	1801000020696	AVINASH YADAV
4.	1601010000388	VARSHA SHARMA
5.	1601010000302	NISHESH GUPTA
6.	1701010001337	HARSH YADAV
7.	1801000020695	MAHESHWAR NARAYAN

M. K. Mishra