

ACTIVITIES
HELD UNDER
IEEE APS



Department of ECE
&
BMSCE IEEE APS

PRESENT



ANTENNA ALCHEMY

Unraveling Secrets with HFSS

A 5 day workshop on Antenna Design and
Simulation using Ansys HFSS

DATE: 14th to 19th August 2023
TIME: 4 PM- 6 PM
VENUE: L302, 3rd floor, PJ Block

Resource person



Dr. Karthikeya G. S
Senior member, IEEE
Assistant Professor, BMSCE

Registration fees
IEEE members: Rs.100
Non IEEE members: Rs.150



Contact details
Pavan: 7676852967
Sanjana: 8861007579

Antenna Alchemy Report

“Antenna Alchemy” was a five-day workshop organized by the BMSCE IEEE APS SBC in collaboration with ELSOC and Dept of ECE, from 14th August 2023 to 19th August 2023. The workshop was conducted for a 2-hour span daily on the said days (4PM to 6PM).

It was BMSCE IEEE APS’s 1st event since its inception.

Dr. Karthikeya G.S, a senior IEEE member and Assistant Professor of ECE department was the esteemed resource person. Through this workshop we provided a platform for comprehensive understanding of antenna design and simulation using ANSYS HFSS (High Frequency Structure Simulator) tool (2015 version).

The day wise details are as follows

Day1: Participants were introduced to ANSYS HFSS tool and more focus was streamed on its basics and significance in electromagnetic simulation.

Day2: Theoretical concepts of antennas including fundamental principles and Antenna parameters were taught.

Day3: Participants were taught to design a dipole antenna, which was later optimized for specific frequencies.

Day4: The designed antenna was analyzed and fine tuning of the antenna was undertaken to obtain high efficiency and optimal functionality.

Day5: Advanced concepts like phased arrays and beamforming were explored.

The workshop had 4 IEEE and 8 non-IEEE participants.

The registration fee for the workshop was Rs 100 for IEEE members and Rs 150 for Non-IEEE members.

The inauguration and valedictory function were graced by Dr. Siddappaji, HOD, Dept of ECE and Dr Archana H R, Faculty Coordinator, ELSOC.

In the valedictory function, all the participants were awarded with a certificate. The resource person was honored with a plant sapling and a certificate of appreciation.



Bengaluru, Karnataka, India

New Academic Block, BMS College of Engineering, Basavanagudi, Bengaluru, Karnataka

560019, India

Lat 12.940889°

Long 77.565576°

14/08/23 04:24 PM GMT +05:30



Bengaluru, Karnataka, India

WHR8+954, Basavanagudi, Bengaluru, Karnataka 560019, India


Lat 12.940895°

Long 77.565557°

14/08/23 05:01 PM GMT +05:30





 **GPS Map Camera**



Bengaluru, Karnataka, India

WHR8+954, Basavanagudi, Bengaluru, Karnataka 560019, India

Lat 12.940897°

Long 77.565557°

19/08/23 03:01 PM GMT +05:30



ELSOC



BMS COLLEGE OF ENGINEERING
DEPT OF ECE IN COLLABORATION WITH IEEE APS SBC

PRESENTS

TRANSMITTECH

The Ultimate Antenna Design Showdown

ELSOC WEEK 2023

Prize pool
Rs. 1750 !

Date: 25 August 2023

Mode: Hybrid

Timings: 11AM to 3PM

Registration Fees:

IEEE Members: Rs 35

Non IEEE Members: Rs 50

ELSOC Coordinator:
Smruthi: 9742355904

IEEE APS Coordinator:
Prajet: 8792063841

TransmitTech

“TransmitTech” was an antenna designing competition organized by BMSCE IEEE APS SBC in collaboration with ELSOC and Department of ECE,BMSCE as a part of ELSOC Week on 25th August 2023 in Online mode.

Participants showed their creativity by designing purposeful antennas.

Dr.Karthikeya G.S, Assistant Professor, Dept of ECE and Dr.Feroz Morab, Assistant Professor, Dept of ECE were the judges for the competition.

The invitation of the event was sent to colleges across Bengaluru and Karnataka as well. The total number of registrations received was six. Free entry was given to the participants of Antenna Alchemy workshop.

The registration fee for new participants was IEEE- Rs 35
NON-IEEE- Rs 50

The event was conducted on Google Meet. The participants were instructed to show their design, simulation results. This was followed by a Q & A round.

The judging criteria were presentation skill, novelty, Q&A and Selection of topic.

The first and second prize winners were awarded with Rs.1000 and Rs.750 respectively. All the participants and judges were awarded with E-certificates.

Bharathisha Raghavendra Rao (Presenting)

3D based Sub-6 GHz antenna - PowerPoint

farfield (1-5.8) [2]
 Type: farfield
 Approximation: enabled (off >> 1)
 Component: Abs
 Output: Gain
 Frequency: 5.8 GHz
 Rad. Eff.: -4.523 dB
 Tot. Eff.: -4.794 dB
 Gain: 3.225 dB

farfield (1-5.8) [1]
 Type: farfield
 Approximation: enabled (off >> 1)
 Component: Abs
 Output: Gain
 Frequency: 5.8 GHz
 Rad. Eff.: -0.561 dB
 Tot. Eff.: -1.076 dB
 Gain: 7.413 dB

1:44 PM | sni-rsvk-svv

M Shriya Pai Electronics ...

Bharathisha Raghavendra Rao

Prajeet Kulkarni Electron...

Karthikeya GS

Feroz Morab

R Akhil Karthik

kritika penagaluru

Prutha Arun Vernekar Ele...

R Akhil Karthik (Presenting)

ANSYS Electronics Desktop 2021 R2 - Mini-Project_Sanyal - optimized_16 - S Parameter Plot 1 - SOLVED

S Parameter Plot 1

optimizod_16 ANSYS

22.96, 23.99, 26.19, 26.97, 28.53, 30.13, 36.68

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M Shriya Pai Electronics ...

R Akhil Karthik

Bharathisha Raghavendr...

Karthikeya GS

Feroz Morab

Prajeet Kulkarni Electron...

kritika penagaluru

Prutha Arun Vernekar Ele...

Bharathisha Raghavendra Rao (Presenting)

Max Gain over Frequency

Frequency / GHz	Max Gain over Frequency (dBi)
5.2029	4.3404
5.5	5.5
5.8022	5.5
7	1.3471

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Bengaluru, Karnataka, India
 390, 1st Cross Rd, NR Colony, Basavanagudi, Bengaluru, Karnataka 560050, India
 Lat 12.93972°
 Long 77.565433°
 25/08/23 01:43 PM GMT +05:30

GPS Map Camera

Bharathisha Raghavendra Rao (Presenting)

390, 1st Cross Rd, NR Colony, Basavanagudi, Bengaluru, Karnataka 560050, India

Lat 12.93972°
 Long 77.565433°
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GPS Map Camera

krithika penagaluru (Presenting)

Gain Plot 4

HFSSDesign1 ANSYS

Curve Info

- dB(Directivity) Gain(Phi)
- Setup1 Lossless
- Freq=28GHz Phi=90deg
- dB(Directivity) Gain(Theta)
- Setup1 Lossless
- Freq=28GHz Phi=90deg

2:00 PM | sni-rsvk-svv

GPS Map Camera

Bengaluru, Karnataka, India
390, 1st Cross Rd, NR Colony, Basavanagudi, Bengaluru, Karnataka 560050, India
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Long 77.565449°
25/08/23 02:00 PM GMT +05:30

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meet.google.com/sni-rsvk-svv

M Shriya Pai Electronics Engineering

Prajeet Kulkarni Electronics Engineering

Karthikeya GS

Feroz Morab

krithika penagaluru

R Akhil Karthik

Bharathisha Raghavendra Rao

Prutha Arun Vernekar Electronics Engineering

2:06 PM | sni-rsvk-svv

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02:06 PM 25-08-2023
