**Name of the Event :** **Training Session on ANSYS HFSS (3D High Frequency Simulation**

 **Software)**

**Moderator : Kush Parikh**

**Mode of Conduct :** Online

**Venue :**Seminar Hall, Block-2, GPCET, Kurnool

**Date of the Event : 27**th July 2024

**About the event :**

G. Pullaiah College of Engineering and Technology has organized a webinar on 27-07-2024, GPCET. An insightful and motivational webinar titled "Training Session on ANSYS HFSS (3D High Frequency Simulation Software) " by esteemed speaker, the Kush Parikh” Ansys HFSS (High-Frequency Structure Simulator)\* is a popular software tool used for simulating and analyzing high-frequency electromagnetic fields. It’s widely used in the design and analysis of antennas, microwave components, RF circuits, and more.

**EVENT POSTER**



**Brief Report :**

\*Ansys HFSS (High-Frequency Structure Simulator)\* is a popular software tool used for simulating and analyzing high-frequency electromagnetic fields. It’s widely used in the design and analysis of antennas, microwave components, RF circuits, and more.

To help you get started, here’s a basic outline for a training session on Ansys HFSS 3D:

1. Introduction to Ansys HFSS

 - Overview of the software.

 - Applications and use cases.

 - Basic principles of electromagnetic simulation.

2. Setting Up a New Project

 - Starting a new project in HFSS.

 - Understanding the user interface.

 - Overview of the project tree, design window, and solution setup.

 3. Geometry Creation

 - Creating and importing 3D geometries.

 - Defining materials and assigning them to geometries.

 - Setting up boundary conditions and excitations.

4. Meshing

 - Introduction to meshing in HFSS.

 - Mesh operations and refinement.

 - Mesh convergence and accuracy considerations.

5. Solution Setup

 - Defining solution setups and frequency sweeps.

 - Specifying the type of analysis (e.g., driven modal, eigenmode).

 - Setting up ports and excitations.

 6. Simulation and Results Analysis

 - Running the simulation.

 - Visualizing fields, currents, and other electromagnetic quantities.

 - Analyzing S-parameters, radiation patterns, and other outputs.

7. Advanced Features

 - Parametric analysis and optimization.

 - Using HFSS with other Ansys tools (e.g., Ansys Mechanical for thermal analysis).

 - HFSS scripting and automation.

8. Practical Examples

 - Design and simulation of a basic antenna.

 - Analysis of a waveguide or filter structure.

 - Custom examples relevant to your industry or research.

 9. Troubleshooting and Best Practices\*

 - Common issues and solutions in HFSS.

 - Tips for improving simulation accuracy and efficiency.

 Dr. M. RAMA PRASAD REDDY

 COUNSELLOR

 IEEE GPCET STUDENT BRANCH