

Report on 3- Day Training Program on “Exploring the CST Studio Suite” for Antenna Modeling

Date/Time: 30th July – 1st August 2025

Time: 9 am– 4 pm

Venue: Dept. of ECE, KSSEM, Bangalore

Target Audiences: Faculty Members and Students

No. of Participants: 30

About the Event: Department of Electronics and Communication Engineering, KSSEM in association with Best Engineering Aids and Consultancies Pvt.Ltd., (BEACON) Bangalore organized a 3- Day training program on “Exploring the CST Studio Suite” for Antenna Modeling. Dr. K. Senthil Babu, Head, Department of ECE, KSSEM addressed the gathering and suggested to utilize the training program effectively by interacting with the resource person.

Resource person Mr. **VENKATESH S S**, Application Engineer- Electromagnetics, Best Engineering Aids & Consultancies Private Limited, covered the sessions as:

Day 1 – Introduction & Advanced Modelling

- Covered basic and advanced 3D modelling operations
- Topics included **extrude, blend, shelling**, and other geometry tools
- Completed **3 hands-on modelling workshops**

Day 2 – Solver Workflow & Problem Setup

- Focused on **problem setup, solver workflow, and boundary conditions**
- Explained **port setup, solver settings, and result interpretation**
- Guided participants through a complete **simulation-based workshop**

Day 3 – Solver Theory, Meshing & Antenna Design

- Delivered theory on **solver selection, mesh setup, and parameter sweeps**
- Demonstrated **Antenna Magus integration** and patch antenna simulation
- Completed a full **antenna design workshop** with results post-processing

On 3rd day Dr. Girish V Attimarad, Professor, Dept. of ECE, KSSEM expressed his feedback and concluded the session by thanking the resource person for delivering effective hands-on sessions. The Participants and the faculty members Dr. Manu D K, Dr. Gopalakrishna Murthy C R, Mrs. Hemapriya M, Mrs. Bhargavi V Sangam and Mr Raju expressed their Feedback stating that the 3-day TRAINING PROGRAM was informative and all the arrangement & hospitality were good. The event witnessed enthusiastic participation from faculty members.

Objectives: A 3-day training program aims to explore the CST Studio Suit for advanced modelling, Solver theory & workflow, design and analysis of the various antennas through series of lectures and hands-on session on CST studio suite.

Outcome: Participants gained the knowledge on the following topics as stated:

- The Electromagnetics, Modeling of Power Splitter & microstrip patch antenna simulation
- Navigated the general layout of the CST STUDIO SUITE interface
- Generated CAD geometries with extruding, blending and shelling
- Set up the project environment with the desired units, frequency settings, background materials and boundary conditions
- Understood the various material types that exist and how to define them
- Setup excitations using lumped elements and waveguide ports
- Setup result monitors to obtain 2D/3D field data
- Understood the antenna Magus integration
- Set up the most appropriate solver and algorithm for high frequency applications.
- Analyzed simulation results such as S-parameters, voltages, currents, 3D nearfields and Farfields.
- Exposed to the antenna magus and patch antenna array design & simulation.

Photo Gallery:

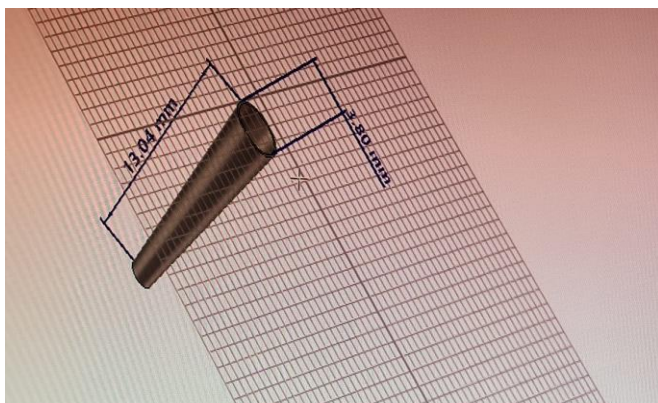


Figure 1. Participants explore the modeling activities with different solid shapes

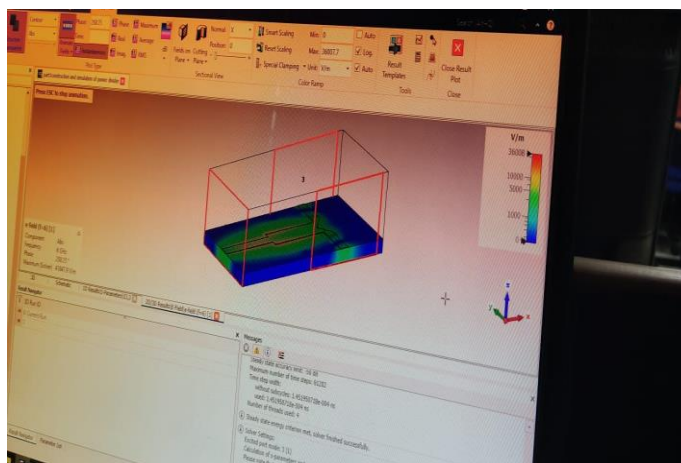


Figure 2. Participants are involved in designing Power Splitter

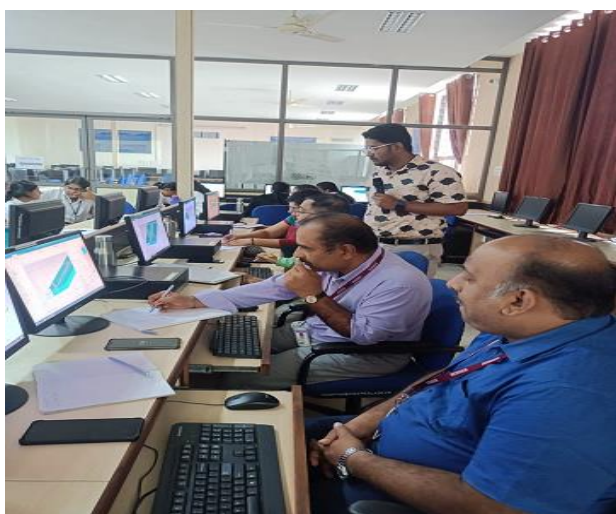


Figure 3 Participants are exploring solver Meshing and designing



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Figure 4 Concluding the Program by Dr. Girish V Attimarad

3-Day TRAINING PROGRAM Group Photo



Name of the Coordinators

1. Dr. Girish V Attimarad
2. Dr. Gopalakrishna Murthy C R
3. Dr. Manu D K

Signature

Signature of Dr. Gopalakrishna Murthy C R

Signature of Professor & Head
Professor & Head
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