IEEE Antennas and Propagation Society
ACTIVITY REPORT

1. **Name of the Activity**: Value added course on Antenna Designs for Undergrads
2. **Objectives:**
   - Introduction to the fundamental principles of antenna theory
   - Provide hands-on experience in designing and analysing antennas using industry-standard simulation tools such as ANSYS HFSS.
   - To understand the operation and characteristics of real-world antennas through practical exposure and demonstrations
   - To develop the ability to design and optimize planar antennas for specific communication and sensing applications.
   - Improved research quotient in these domains.

3. **Date, Time and Venue of the Activity:** 6th September – 8th October 2025, BMS college of Engineering, Bangalore
4. **Name and details of collaborating/ associating agency (if it is collaborative/joint activity):** Department of ECE, Advanced RF and Wireless Communication Lab.
5. **Brief summary of the Programme:**
   Presenters of the programmes -
   - Dr. Karthikeya G S, Assistant Professor, BMS College of Engineering
   - Dr. Feroz Morab, Assistant Professor, BMS College of Engineering

   Schedule -

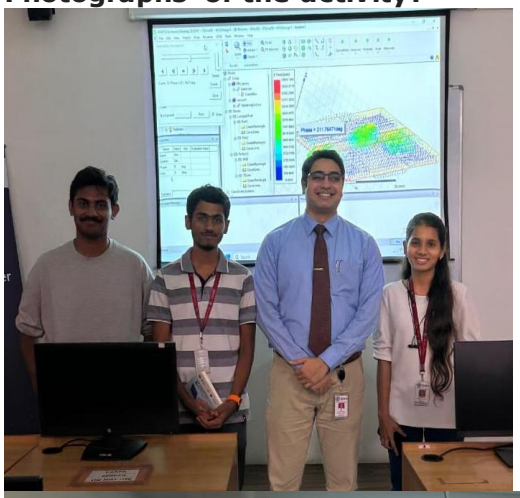
Date, Time and Venue	Topics or activities	Mode of Delivery	Remarks
6th September L-302 10:00 – 15:00	• Session 1: Introduction to ANSYS HFSS tool, Microwave Theory, Electro Magnetic Fundamentals and Transmission Line • Session 2: Design of Transmission line and design of Dipole Antenna in HFSS Tool	Lecture + Demo + Hands on Lab	Open Q&A, doubts clearing and Instructor Support session
7th September – 7th October	Application-Based Design Challenge	Project Work	One-on-one doubts clarification
8th October 20:30 – 22:15	Final Project Presentation and Report Submission	Presentation	Evaluation and Assessment of presentation and report

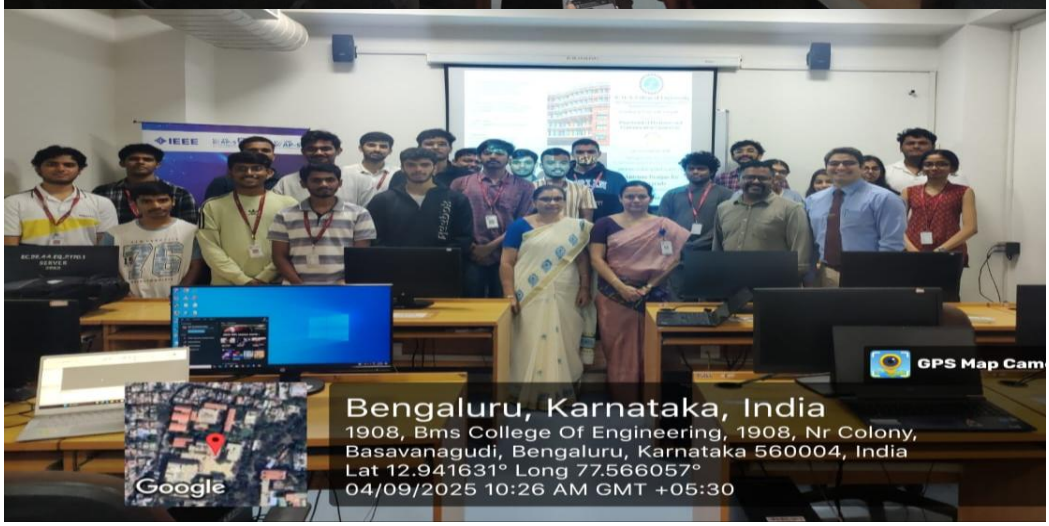
6. **Outcomes:**
   - Learn the fundamentals of Antenna Parameters, industry perspective.
   - Exposure to real-world antennas and its applications.
   - Exposure to industry-standard software.
   - Design fundamental antennas with special emphasis on planar antennas.
   - Exposure to fabrication and experimental characterisation of antennas.
   - Application oriented design tasks on ANSYS HFSS.

7. **Number of participants:**

Particulars	Number of Faculty & Students	Non-Teaching Staff	External Participants
Total Number of Participants **33**	IEEE Members : 14 Non-IEEE Members : 19	-	**-**

8. **Photographs of the activity:**





9. **Supporting Documents:**

Patrons
Dr. B. S. Ragini Narayan, Donor Trustee, BMSET
Dr. P. Dayananda Pai, Chairman, BMSCE
Sri. Aviram Sharma, Trustee, BMSET
Sri. Ravi Venkatesam, Trustee, BMSET

Mentors
Dr. Bheemsha Arya, Principal, BMSCE
Dr. L. Ravikumar, Vice-Principal (Aca), BMSCE
Dr. Seshachalam D, Vice-Principal (Admin), BMSCE

Advisory Chair
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Ansys

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Bull Temple Road, Basavanagudi, Bengaluru 560019
(Autonomous Institute under VTU)

Accredited by NAAC with A++ grade

Organised by

Department of Electronics and Communication Engineering

in association with

Advanced RF and Wireless Communication Lab & IEEE APS SBC

presents Value added course on

Antenna Designs for Undergrads

A DIY Approach

3 to 17 September 2025

About the institution

B.M.S. College of Engineering, Bengaluru has the unique distinction of being the first private engineering college established in the country in 1946. The institution owes its existence to the foresight and vision of its beloved founders, Late Sri B. M. Sreenivasaiah and his illustrious son Sri B. S. Narayan. Imparting quality education and training was the founder's vision for the development of skilled and competent engineers who will go on to become the workforce for the benefit of national prosperity. The college initially started with three undergraduate programmes in 1946 and currently offers 18 undergraduate and 13 postgraduate programmes in conventional and emerging fields. In addition, the college also offers PhD programmes in fifteen of its departments which are recognized as research centers by the University, and is also approved as QIP Centre in Engineering and Technology by AICTE. The college maintains high academic quality standards, the certification by the National Assessment and Accreditation Council (NAAC) and National Board of Accreditation (NBA) bearing testimony for the same. In fact it is the first few institutions in India to be bestowed with NBA in Tier-I Format (Washington Accord) in the year 2013. The institute is accredited by National Assessment and Accreditation Council (NAAC) with the highest grade of A++ in the second Cycle with a CGPA of 3.83 on a scale of four. The institution is a proud recipient of TEQIPIII (World Bank Funded Project) after successful participation in TEQIP-I and II Projects. BMSCE is the only partner institution in the country with the Melton Foundation, USA which promotes cross-cultural learning for selected students along with peers from five other countries.

About the Department

The department of Electronics and Communication Engineering (ECE) of BMSCE was established in 1971 with an initial intake of 60 students to the Undergraduate (UG) program and enhanced to an intake of 120 students from 1983 and 180 students from 2018. The intake has been raised to 276 since 2022. The department offers three Postgraduate Programmes: "M. Tech. Electronics" from 1986, "M. Tech. Digital Communication Engineering" from 1996 with an intake of 18 students and "M. Tech. VLSI Design & Embedded Systems" from 2014 with an intake of 24 students. The department is also a recognized Research Centre (RC) by VTU from 2002 and is a recognized Quality Improvement Programme (QIP) center by the AICTE from 2011. With these activities on-hand, the overall objective of the department is to contribute significantly to the realization of the vision of BMSCE. The department is accredited by NBA for three years under TIER-I from 2023 to 2026. The department has a long tradition of excellence in educating, mentoring, and inspiring future technology leaders and researchers in the area of Electronics and Communication Engineering.

ABOUT THE PROGRAM:

1. The program is open to V Semester UG students.
2. It includes certification along with hand-on-training.
3. Students eager to join hardware companies are encouraged to apply this internship
4. The number of interns is limited to twenty.

EXPECTED OUTCOMES:

1. Learn the fundamentals of Antenna Parameters, industry perspective
2. Exposure to real-world antennas and its applications
3. Exposure to industry-standard software
4. Design fundamental antennas with special emphasis on planar antennas
5. Application oriented design tasks on ANSYS HFSS

DATES:
3 TO 17 SEPTEMBER 2025

VENUE: L-302, PJ Block

Register by scanning the **QR Code**

Registration fee:
Rs. 300/-
(to Dr. Feroz Morab / Dr. Karthikeya G. S)
30% discount for IEEE members
**Seats limited to 40*
* Selected *Best Projects will be Rewarded*