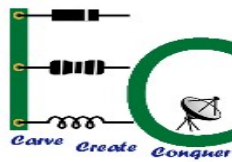




ESTD : 1946

# The National Institute of Engineering, Mysuru



## Department of Electronics and Communication

**Type of Event:** Technical Talk

**Event Name:** Electromagnetic Field Theory

**Academic Year:** 2022-2023

**Date:** 12/01/2023

**Duration:** 1 Day

**Target Participants:** Students

**Number of Participants:** 120 Students

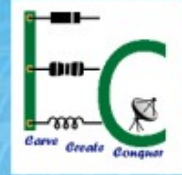
60 Girls + 60 Boys

**Faculty** 10



# The National Institute of Engineering

(Autonomous Institute under VTU Belagayi)



## Resource Person

**M J Sampath Kumar**

Emeritus Professor,  
The National Institute of Engineering, Mysuru

## Objective

1. To give students an insight of electromagnetic Field Theory
2. To introduce students to various laws of Electromagnetic Field Theory

## Outcomes

1. Students will understand the difference between electric and magnetic fields
2. Students will be able to explain how time varying electric field produces magnetic field and the

## Chief Patron

**Dr. Rohini Nagapadma**

Principal and Professor  
Dept. Of ECE, NIE, Mysuru

**Dr. Parameshwara S**

Associate Professor and Head,  
Dept. Of ECE, NIE, Mysuru

## Technical talk

on

## *Electromagnetic Field Theory*

Date: 12<sup>th</sup> Jan, 2023

Time: 10:30 AM to 1:00 PM

Venue:

**Sarvapalli Radhakrishna Hall**

Admin Block, NIE, Mysuru

## Coordinators

**Dr. Raghu J**

Assistant Professor  
Dept. Of ECE, NIE, Mysuru

**Prof. Anupama B C**

Assistant Professor  
Assistant Professor  
Dept. Of ECE, NIE, Mysuru







## **Invited talk REPORT**

Invited Talk on Electromagnetic Filed Theory

January 12, 2023

by

Prof. Sampath Kumar

### **Objectives:**

1. To give students an insight of Electromagnetic Filed Theory
2. To introduce students to various laws of Electromagnetic Filed Theory

Prof. Samopath Kumar explained need for electromagnetic field theory for wireless communication. He also explained the sources of energy and how charges will be responsible for E and H fields. Students were introduced to lows of Coulumb, Gauss and Divergences theorems.

Further, laws of magnetic fields are also discussed---stokes theorem, biot-savart, Poynting theor, etc. Towards the end of the session, effect of time-varying E and H fields and their effect on each other were also discussed. Overall session was fruitful as students actively participated in discussion with resource person.

### **Outcomes:**

1. Students are able to explain the differences between electric and magnetic fields
2. Students will be able to explain how time-varying E field produces H field and the reverse.



Course Outcome based on gap identified for conduction of SDP/Workshop/Seminar, etc for students only.

<b>CO</b>	<b>Students will be able to:</b>
CO1	Explain different laws of Electromagnetic Theory

### CO-PO-PSO Mapping: SDP/Workshop/Seminar, etc

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	P10	P11	P12	PSO1	PSO2	PSO3
CO1	2	1											2		1

### Justification for the Mapping

CO	PO	Justification
1	1	Students are able to apply knowledge Communication Engineering.
1	2	Students are able to apply concept learnt to Communication systems for engineering problems.



Signature of the coordinator