



SAI RAM ENGINEERING COLLEGE

*An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi
Accredited by NBA and NAAC "A+" | BIS/EOMS ISO 21001 : 2018 Certified and NIRF ranked institution*
Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairam.edu.in



Distinguished Lecture Program

on

Noise Sources in Electric Vehicles

Student Coordinators

(Student Members /Electromagnetic Compatibility Society)

1. Kaushik (III ECE A)
2. Yeshwanth (III ECE A)
3. Anuradha (III ECE D)

Event Coordinator

Rashmi A/AP/ECE/SEC

Lakshmi G/AP/ECE/SEC

Member / Electromagnetic Compatibility Society



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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Distinguished lecture program on
NOISE SOURCES IN ELECTRIC VEHICLES
EVENT ID: SEC202501IEEEEMSO1



RESOURCE PERSON
KAREN BURNHAM
EMC SUBJECT MATTER EXPERT | AUTOMOTIVE
AND AEROSPACE / DEFENSE | CONSUMER
ELECTRONICS | PRESIDENT AND CHIEF EMC
ENGINEER AT EMC UNITED, INC.

SCAN TO REGISTER



10/01/2025

11 AM

MODE: ONLINE

STAFF COORDINATORS
RASHMI A
LAKSHMI G

DR. S BRINDHA
IEEE STUDENT BRANCH
COORDINATOR

DR. J THAMIL SELVI
HOD-ECE

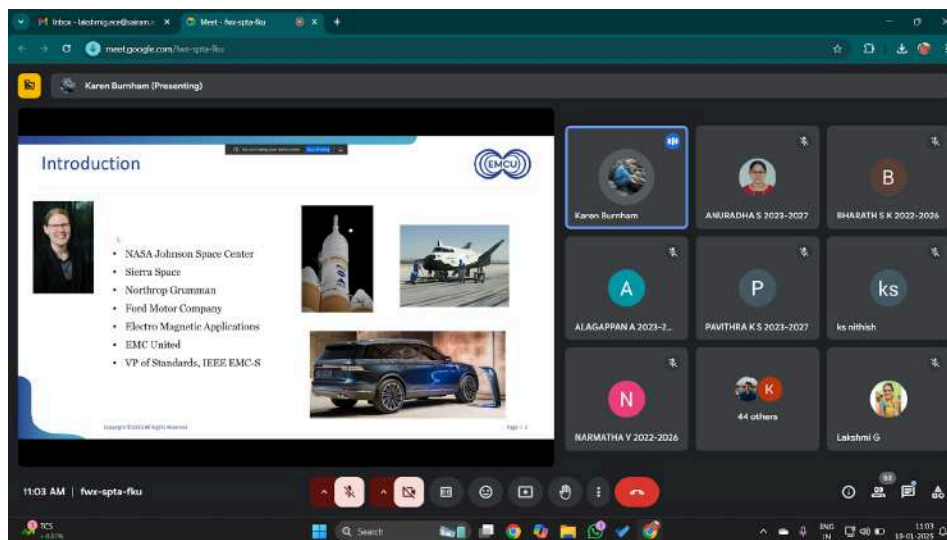
DR. J. RAJA
PRINCIPAL

DR. SAI PRAKASH LEOMUTHU
CHAIRMAN & CEO
SAIRAM INSTITUTIONS



STUDENT COORDINATORS
KAUSHIK S
YASWANTH A
ANURADHA S


The Department of Electronics and Communication Engineering organized distinguished workshop for 2nd year students. Total 90 students attended the online session and learned about Noise source in electric vehicles.



What is EMC?

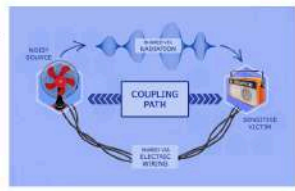
You may also see:

- EMI = Electromagnetic Interference
- EME = Electromagnetic Effects
- EEF = E3 = Electromagnetic Environmental Effects
- EMR = Electromagnetic Resilience



11:04 AM | fwe-spta-fku

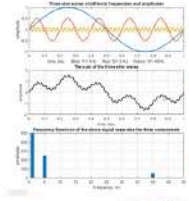
EMC Problems



11:06 AM | fwe-spta-fku

Frequency Plots

More complicated waveforms are built from more complicated combinations of sine waves, which is reflected in the Fourier Transforms



11:13 AM | fwe-spta-fku

Organized by : **Department of Electronics and Communication Engineering,
Sri Sairam Engineering College, Chennai.**

Date and Time : **10th January 2025, 11:00 AM**

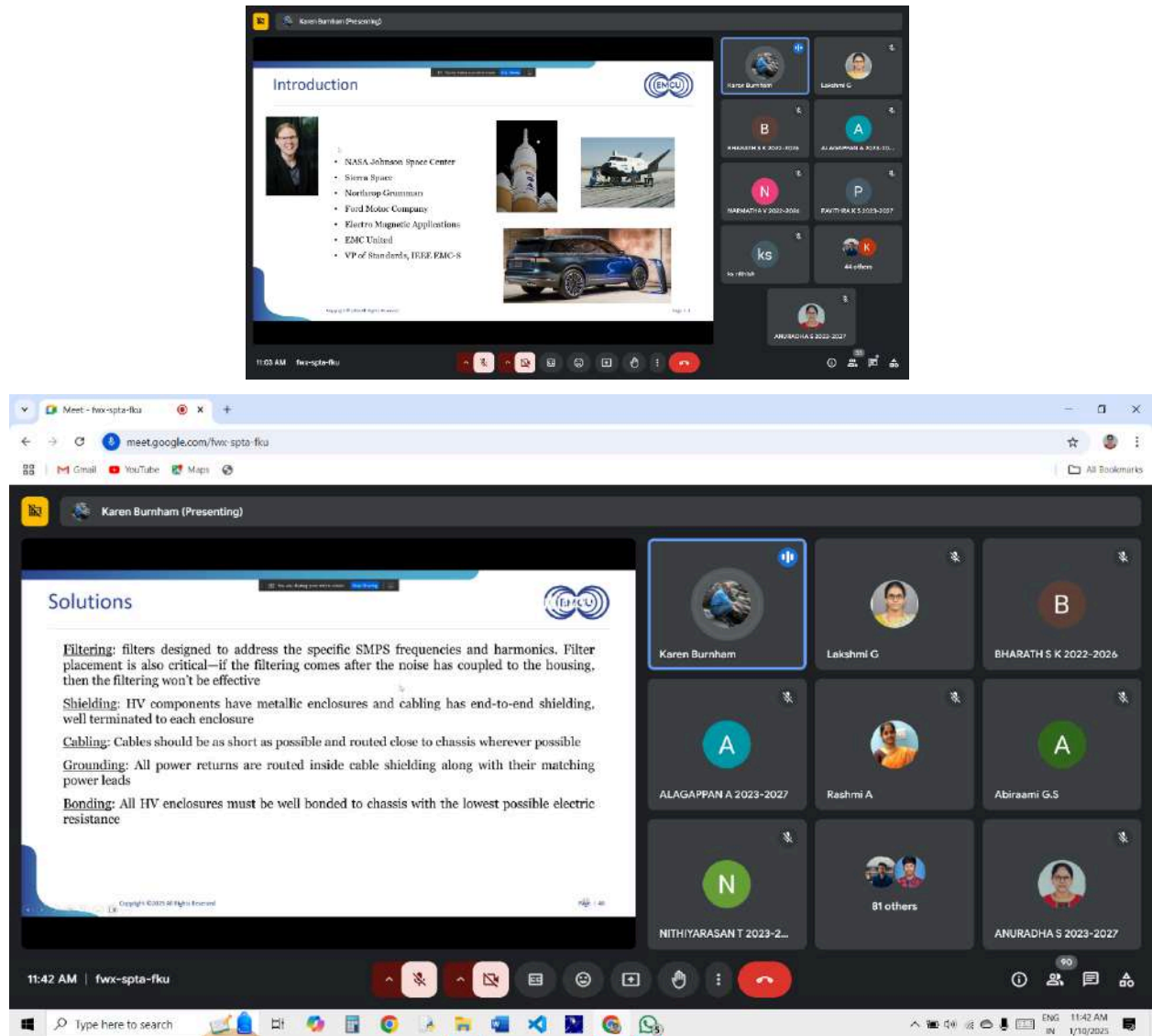
Mode : **Online**

Event ID : **SEC202501IEEEEMS01**

About the Resource Person

Karen Burnham:

1. **Expert in Electromagnetic Compatibility (EMC):** Over 25 years of experience in aerospace, defense, and automotive industries.
2. **Key Roles:** President and Chief EMC Engineer at EMC United, Inc., and Vice President of Standards for the IEEE EMC Society.
3. **Notable Projects:** Lead EMC Engineer for NASA's Dream Chaser space vehicle, EMI Test Director at Northrop Grumman, and EMC testing for hybrid and electric vehicles at Ford Motor Company.
4. **Technical Expertise:** Specializes in EMC noise analysis, antenna design, RF susceptibility, and lightning protection systems.
5. **Professional Recognition:** iNARTE-certified EMC Engineer, IEEE Senior Member, and Distinguished Lecturer for the IEEE EMC Society.
6. **Educational Background:** Holds a Master's degree in Electrical Engineering from the University of Houston and a Bachelor's degree in Physics from Northern Arizona University.



Event Highlights

Introduction to Noise Sources in EVs:

- o Overview of the common electromagnetic noise sources in electric vehicles.
- o Explanation of how these noise sources impact vehicle performance and user safety.

Role of EMC in Automotive Engineering:

- o Importance of EMC compliance in EV design.
- o Examples of real-world EMC issues in automotive and consumer electronics.

Mitigation Strategies:

- o Innovative techniques and best practices for controlling noise in EVs.
- o Tools and methodologies for EMC analysis and testing.

Interactive Q&A Session:

- o The participants had the opportunity to discuss practical challenges with the resource person.

Conclusion

The program was highly informative and beneficial for students and professionals interested in electric vehicles and EMC. The online mode facilitated a wide reach, allowing participants to engage with a global expert in the field.

