



# SAI RAM ENGINEERING COLLEGE

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Sai Leo Nagar, West Tambaram, Chennai - 600 044. [www.sairam.edu.in](http://www.sairam.edu.in)



**Guest lecture**

**On**

**Sampling and Quantization**

**Resource person**

Mrs Madumitha J

CEG Campus/Anna University

**Staff Coordinators**

Dr Sumathi S

Ms Saranya S

Ms Gowri Manohari R

Ms Sandhya J

**Student Coordinator**

Mr Rajkumar (III/ECE)

Ms Mamitha (III/ECE)

Venue :Online

Date :03.05.2025



Sri  
**SAI RAM**  
ENGINEERING COLLEGE

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EXPLORE EXPEND ENLIGHTEN

**IEEE ComSoc**  
IEEE Communications Society  
SEC STUDENT BRANCH CHAPTER

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**GUEST LECTURE ON**

# **SAMPLING AND QUANTIZATION**



**Mrs. J. Madhumitha**  
**Wireless Communication Researcher**  
**CEG, Anna University, Chennai**

Event ID : SEC202505DEC08



Date : 03 May 2025  
Timing : 7.00 to 8.00 pm

**Mode: GMEET**

**Student coordinators**

**RAJ KUMAR D**  
**ANURADHA S**  
**MAMITHA M**

**COORDINATORS**  
Dr.Sumathi S  
Ms.Saranya S  
Ms.Gowri Manohari R  
Ms.Sandhiya J

Dr. S Brindha  
IEEE  
MADRAS SECTION  
SB COUNSELOR

Dr..J.Thamil Selvi  
HOD/ECE

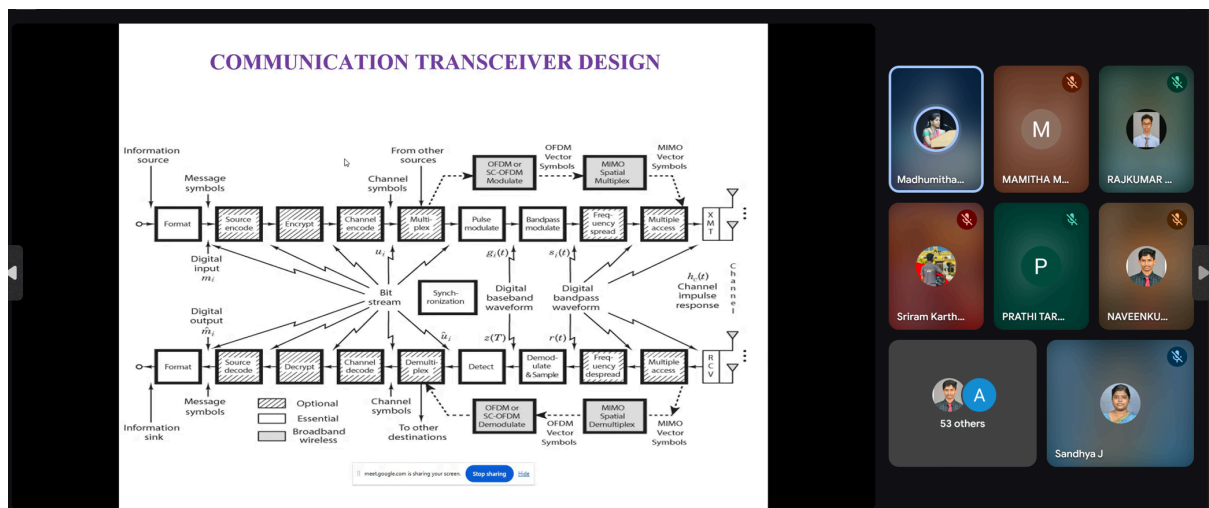
Dr. J. Raja  
PRINICIPAL

Dr. Sai Prakash Leomuthu  
CHAIRMAN & CEO  
Sairam Institutions

About the event :

The Department of Electronics and Communication Engineering organized distinguished Guest lecture for 2nd year students. Total 248 students attended the online session and learned about Sampling and Quantization.

The session started with a brief introduction about the resource person .The resource person Mrs Madumitha J started the lecture on Basic concepts on Sampling and Quantization Techniques. The resource person solved many real time examples on Sampling Theory which was very engaging for the students and also doubts were clarified by the resource person .The Research person gave an excellent lecture on Multiplexing and elaborated the FDM and TDM concepts and also how it will be advantageous to the society. The Resource person explains the advantages and disadvantages of Multiplexing Techniques at the end and also its applications. The students gave positive feedback on the lecture .The session ended with the vote of thanks and student feedback .



# Demultiplexing Process

Figure 8.6 FDM demultiplexing process, time domain

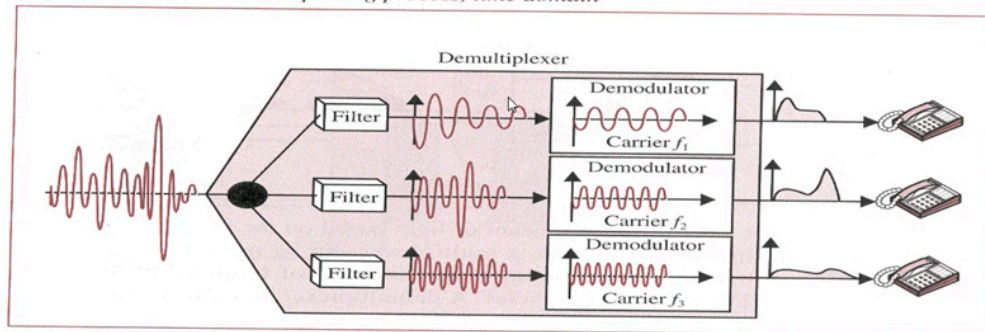
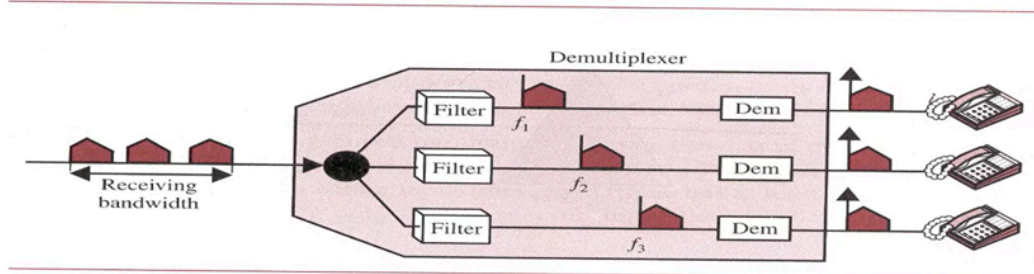


Figure 8.7 FDM demultiplexing, frequency domain



Madhumitha Jayaram (Presenting)

## PULSE CODE MODULATION

The diagram illustrates the Pulse Code Modulation (PCM) process. An 'Analog signal' (a sine wave) is input into a 'PCM encoder' block. The encoder consists of three main stages: 'Sampling', 'Quantizing', and 'Encoding'. The output of the encoder is 'Digital data'. A 'PAM signal' (Pulse Amplitude Modulation) is shown as a series of pulses, representing the sampled signal. A 'Quantized signal' is shown as a series of discrete levels, representing the quantized signal. The diagram also shows a 'Demultiplexer' block, which is used to separate the digital data into its constituent signals.

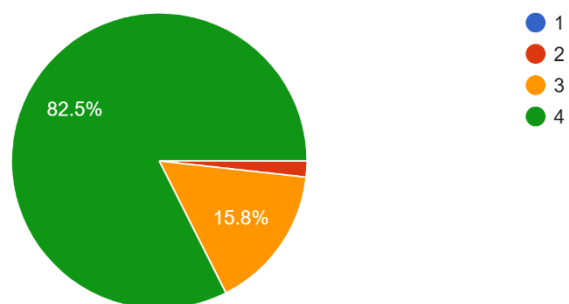
7:18 PM | Guest lecture -Communication theory

86

Madhumitha... LOKESH S 2... MAMITHA M... RAJKUMAR... PRATHI TAR... ABHINESH V... 78 others Sandhya J

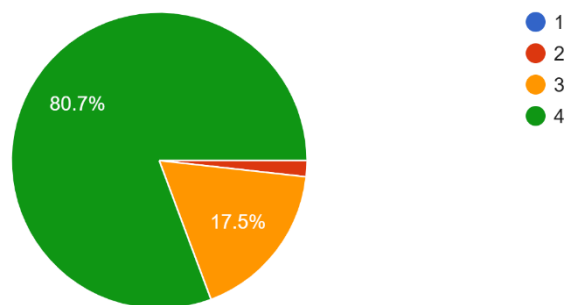
### 1.Organization of the Programme.

57 responses



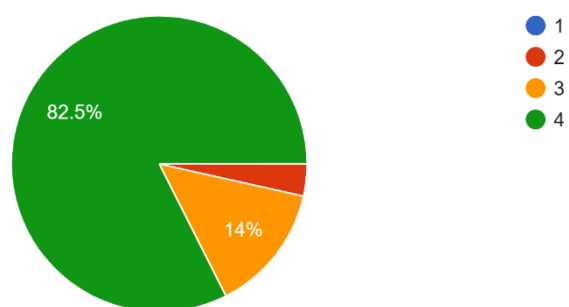
### 2. Knowledge imparted in the Lecture

57 responses



### 3.The resource person(s) well equipped with their subjects.

57 responses



4. Information and/or skills were relevant and useful.  
57 responses

