



KRISHNASAMY

College of ENGINEERING & TECHNOLOGY

Approved by AICTE & Affiliated to Anna University
Anand Nagar, Nellikuppam Main Road, S. Kumarapuram, Cuddalore - 607 109, Tamil Nadu.
☎ (01142) 285 601 - 604 🌐 www.kcet.in ✉ info@kcet.in

DEPARTMENT OF ECE

03.01.2024

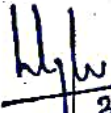
CIRCULAR

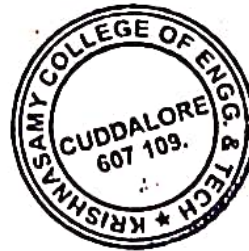
Ref.: KCET/ECE/VAC/CIRCULAR/2023-24/01.

The following Value Added Course will be conducted during the academic year 2023-2024. The course will be conducted from 11.01.2024 & 12.01.24, 18.01.24, 20.01.2024. Students are instructed to register their names in the course allotted to them.

Note: Students are instructed to attend the program without fail.

S.No.	Course Code	Name of the Course	Year	No. of Period	Course Coordinator
1	EC-VAC2301	RF SYSTEM DESIGN	IV	30	Er.M.DEVANANTHAN AP-ECE
2	EC-VAC2302	DIGITAL COMMUNICATION	III	30	Er.V.KOKILA,AP-ECE


3/1/24
Vice-Principal



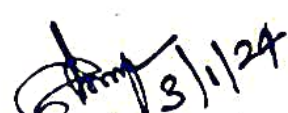

02/01/24
HOD/ECE

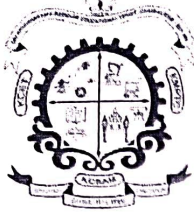
Copy to:

Class Room

Class In charge

Department File


3/1/24
Principal



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SYLLABUS

Subject Code/ Subject Name: EC-VAC2302 - **DIGITAL COMMUNICATION** **Duration:** 30 Hours

OBJECTIVES:

- To know the principles of sampling & quantization
- To study the various waveform coding schemes
- To learn the various baseband transmission schemes
- To understand the various Band pass signaling schemes
- To know the fundamentals of channel coding

MODULE I SAMPLING & QUANTIZATION

6

Low pass sampling – Aliasing- Signal Reconstruction-Quantization - Uniform & non-uniform quantization - quantization noise - Logarithmic Commanding of speech signal- PCM - TDM

MODULE II WAVEFORM CODING

6

Prediction filtering and DPCM - Delta Modulation - ADPCM & ADM principles-Linear Predictive Coding.

MODULE III BASEBAND TRANSMISSION

6

Properties of Line codes- Power Spectral Density of Unipolar / Polar RZ & NRZ – Bipolar NRZ - Manchester- ISI – Nyquist criterion for distortion less transmission.

MODULE IV DIGITAL MODULATION SCHEME

6

Geometric Representation of signals - Generation, detection, PSD & BER of Coherent BPSK, BFSK & QPSK - QAM - Carrier Synchronization - structure of Non-coherent Receivers -

MODULE ERROR CONTROL CODING

6

Channel coding theorem - Linear Block codes - Hamming codes - Cyclic codes - Convolutional codes - Vitterbi Decoder

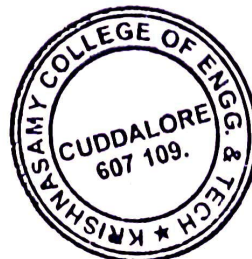
TOTAL:30 HOURS

COURSE OUTCOMES:

Discuss the application of electronics in diagnostic and therapeutic area.

Measure biochemical and various physiological information.

Describe the working of units which will help to restore normal functioning



S. Anand
HOD/ECE