



C.U.SHAH UNIVERSITY

FACULTY OF: - Technology & Engineering

DEPARTMENT OF: -Instrumentation & Control Engineering

SEMESTER: - VI

CODE: - 4TE06ADC1

NAME – Analog and Digital Communication

Teaching & Evaluation Scheme

Subject Code	Subject Name	Teaching Hours/Week				Credits	Evaluation Scheme/Semester							
		Th	Tu	Pr	Total		Theory				Practical			Total Marks
							Sessional Exam		University Exam		Internal		University	
							Marks	Hrs	Marks	Hrs	Pr/Viva	TW	Pr	
4TE06ADC1	Analog and Digital Communication	4	0	2	6	5	30	1.5	70	3	--	20	30	150

Objectives

- To acquaint the students with fundamentals of Communication systems and Data Communication

Pre-requisite

- Fundamentals of electronics, digital electronics

Course Outlines

Sr. No.	Course Contents	No. of Hours
1.	Introduction to Communication Systems: Block Diagram, Types, Modulation Noise: Types, Noise Calculations	6
2.	Amplitude Modulation: Waveform, Mathematical Representation, Frequency Spectrum	6
3.	Angle Modulation: Frequency Modulation, Mathematical Representation, Effect of Noise Phase Modulation, Mathematical Representation, Comparison with FM	6
4.	Radio Receivers	6
5.	Pulse and Digital Modulation PAM,PWM,PPM ASK,FSK,PSK	6
6.	Data and Network Communication a. Introduction To Data And Network Communication b. Error Detection & Correction c. Open System Network Models d. OSI Physical Layer Components	22

	e. Higher Capacity Data Communication f. Data-Link Layer Protocols g. Network Architecture And Protocols	
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Learning Outcomes

- Students will be able to understand the functioning of communication systems in industrial applications as well as network communication including the internet.

Books Recommended

1. Electronic Communication Systems by Keddedy and Davis, Tata Mc-Graw Hill Publication
2. Introduction to Data and Network Communications by Michael A. Miller, Pub: Cengage Learning