LESSON PLAN FOR SESSION:2025-26

DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY
ETC ENGG.	4TH	MRS MULLI VANAJAKSHI,(S-II, LECT(E&TC))

SUBJECT: Essence of Indian knowledge and tradition (AU202)	NO. OF DAYS PER WEEK CLASS ALLOTED : 02	SEMESTER FROM 22/12/2025 TO 18/04/2026
		NO. OF WEEKS : 15 NOS.

WEEKS	CLASS DAYS	UNITS	THEORY TOPICS
1ST WEEK	1ST	UNIT–1: INTRODUCTION TO TRADITIONAL KNOWLEDGE	Definition of Traditional Knowledge: Introduces the basic concept and foundation of the subject
	2ND		Nature and Characteristics of Traditional Knowledge: Helps students identify unique features of TK
2ND WEEK	1ST		Scope and Importance of Traditional Knowledge: Shows relevance of TK in modern society
	2ND		Kinds of Traditional Knowledge – Ayurveda,Siddha & Unani: Highlights India's rich medical heritage
3RD WEEK	1ST		Indigenous Knowledge (IK) & Characteristics: Differentiates global and local knowledge systems
	2ND		TK vs Indigenous Knowledge: Clarifies conceptual differences
4TH WEEK	1ST		Traditional Knowledge of Odisha: Creates regional relevance and awareness
	2ND	UNIT–2: PROTECTION OF TRADITIONAL KNOWLEDGE (TK)	Introduction to TK Protection & Need for Protection: Explains threats like biopiracy
5TH WEEK	1ST		Threats to Traditional Knowledge (Biopiracy, Misappropriation)
	2ND		Significance of TK Protection: Highlights ethical and economic importance
6TH WEEK	1ST		Value of TK in Global Economy: Shows commercial importance
	2ND		International Perspective on TK Protection
7TH WEEK	1ST		Role of Government in Harnessing TK
	2ND		Government Initiatives: TKDL & Review
8TH WEEK	1ST	UNIT-3: Legal Framework and Traditional Knowledge	Introduction to Legal Framework for TK
	2ND		Forest Rights Act, 2006: Protects rights of forest dwellers
9TH WEEK	1ST		PPVFR Act, 2001: Protects farmers' and breeders' rights
	2ND		Biological Diversity Act, 2002: Prevents misuse of biological resources
10TH WEEK	1ST		Biological Diversity Rules, 2004: Explains implementation mechanism
	2ND		Protection of TK Bill, 2016:Introduces recent legal efforts
11TH WEEK	1ST		Comparative Study of TK Laws: Helps understand legal coverage
	2ND	UNIT-4: Traditional Knowledge and Intellectual Property	Systems of TK Protection: Introduces protection mechanisms
12TH WEEK	1ST		Legal Concepts for TK Protection: Connects law with TK
	2ND		Patents and Traditional Knowledge: Explains conflicts & misuse
13TH WEEK	1ST		Geographical Indications (GI): Shows successful protection models
	2ND	UNIT 5: Traditional Knowledge in Different Sectors	TK and Engineering :Shows interdisciplinary relevance
14TH WEEK	1ST		Traditional Medicine Systems: Highlights healthcare contributions
	2ND		TK in Agriculture, TK in Food & Healthcare:Explains food security role , Shows community dependence
15TH WEEK	1ST		TK, Environment & Biodiversity: Links TK with conservation
	2ND		TK, Sustainable Development & Revision: Integrates all concepts

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LESSON PLAN FOR SESSION:2025-26

DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY
ETC ENGG.	4TH	MRS MULLI VANAJAKSHI,(LECT. S-II(E&TC))

SUBJECT: ANALOG & DIGITAL COMMUNICATION LABORATORY (PR-2)	NO. OF DAYS PER WEEK CLASS ALLOTED : 04	SEMESTER FROM 22/12/2025 TO 18/04/2026
		NO. OF WEEKS : 15 NOS.

WEEKS	CLASS DAYS	THEORY TOPICS
1ST WEEK	1ST	Construct the circuit in AM transmitter & Detector Trainer Board/Kit and observe the waveform at different test point & Determine percentage of Modulation Index of AM.
	2ND	Construct the circuit in AM transmitter & Detector Trainer Board/Kit and observe the waveform at different test point & Determine percentage of Modulation Index of AM.
	3RD	Construct the circuit in AM transmitter & Detector Trainer Board/Kit and observe the waveform at different test point & Determine percentage of Modulation Index of AM.
	4TH	Construct the circuit in AM transmitter & Detector Trainer Board/Kit and observe the waveform at different test point & Determine percentage of Modulation Index of AM, with the lab record and rubrics
2ND WEEK	1ST	Construct the circuit in FM transmitter & Detector Trainer Board/Kit & observe the waveform at different section.
	2ND	Construct the circuit in FM transmitter & Detector Trainer Board/Kit & observe the waveform at different section.
	3RD	Construct the circuit in FM transmitter & Detector Trainer Board/Kit & observe the waveform at different section.
	4TH	Construct the circuit in FM transmitter & Detector Trainer Board/Kit & observe the waveform at different section, with the lab record and rubrics
3RD WEEK	1ST	Construct the circuit in sampling theorem Trainer Board/Kit & observe the waveformat different section.
	2ND	Construct the circuit in sampling theorem Trainer Board/Kit & observe the waveformat different section.
	3RD	Construct the circuit in sampling theorem Trainer Board/Kit & observe the waveformat different section.
	4TH	Construct the circuit in sampling theorem Trainer Board/Kit & observe the waveformat different section, with the lab record and rubrics
4TH WEEK	1ST	Construct the circuit in PCM transmitter & receiver Trainer Board/Kit & observe the waveform at Different section.
	2ND	Construct the circuit in PCM transmitter & receiver Trainer Board/Kit & observe the waveform at Different section.
	3RD	Construct the circuit in PCM transmitter & receiver Trainer Board/Kit & observe the waveform at Different section.
	4TH	Construct the circuit in PCM transmitter & receiver Trainer Board/Kit & observe the waveform at Different section, with the lab record and rubrics
5TH WEEK	1ST	Construct the circuit in FSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	2ND	Construct the circuit in FSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	3RD	Construct the circuit in FSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	4TH	Construct the circuit in FSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section, with the lab record and rubrics
6TH	1ST	Construct the circuit in PSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	2ND	Construct the circuit in PSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.

WEEK	3RD	Construct the circuit in PSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	4TH	Construct the circuit in PSK modulator & demodulator Trainer Board/Kit & observe the waveform at different section, with the lab record and rubrics
7TH WEEK	1ST	Construct the circuit in Delta modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	2ND	Construct the circuit in Delta modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	3RD	Construct the circuit in Delta modulator & demodulator Trainer Board/Kit & observe the waveform at different section.
	4TH	Construct the circuit in Delta modulator & demodulator Trainer Board/Kit & observe the waveform at different section, with the lab record and rubrics
8TH WEEK	1ST	Construct the circuit in Super heterodyne radio receiver &observe the waveform at different section & do the alignment
	2ND	Construct the circuit in Super heterodyne radio receiver &observe the waveform at different section & do the alignment
	3RD	Construct the circuit in Super heterodyne radio receiver &observe the waveform at different section & do the alignment
	4TH	Construct the circuit in Super heterodyne radio receiver &observe the waveform at different section & do the alignment, with the lab record and rubrics
9TH WEEK	1ST	Construct /Study the principle of Stereophonic System
	2ND	Construct /Study the principle of Stereophonic System, with the lab record and rubrics
	3RD	Construct the circuit in to determine the output of a TDM signal
	4TH	Construct the circuit in to determine the output of a TDM signal, with the lab record and rubrics
10TH WEEK	1ST	Construct the circuit in MODEM Trainer Board/Kit and observe the waveformat different section
	2ND	Construct the circuit in MODEM Trainer Board/Kit and observe the waveformat different section
	3RD	Construct the circuit in MODEM Trainer Board/Kit and observe the waveformat different section
	4TH	Construct the circuit in MODEM Trainer Board/Kit and observe the waveformat different section, with the lab record and rubrics
11TH WEEK	1ST	Simulate the AM Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad /tina
	2ND	Simulate the AM Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad /tina
	3RD	Simulate the AM Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad /tina
	4TH	Simulate the AM Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad /tina, with the lab record and rubrics
12TH WEEK	1ST	Simulate the FM Modulation using the simulation tool like PSPICE/multisim/orcad/tina
	2ND	Simulate the FM Modulation using the simulation tool like PSPICE/multisim/orcad/tina
	3RD	Simulate the FM Modulation using the simulation tool like PSPICE/multisim/orcad/tina
	4TH	Simulate the FM Modulation using the simulation tool like PSPICE/multisim/orcad/tina, with the lab record and rubrics
13TH WEEK	1ST	Simulate ASK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	2ND	Simulate ASK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	3RD	Simulate ASK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	4TH	Simulate ASK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina, with the lab record and rubrics
14TH	1ST	Simulate FSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	2ND	Simulate FSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina

WEEK	3RD	Simulate FSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	4TH	Simulate FSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina, with the lab record and rubrics
15TH WEEK	1ST	Simulate PSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	2ND	Simulate PSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	3RD	Simulate PSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina
	4TH	Simulate PSK Modulation and demodulation using the simulation tool like PSPICE/ multisim /orcad/tina, with the lab record and rubrics

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LESSON PLAN FOR SESSION: 2025-26

DISCIPLINE	SEMESTER	NAME OF THE TEACHING FACULTY
ETC ENGG.	6TH	MRS MULLI VANAJAKSHI ,LECT. S-II(E&TC)

SUBJECT:- DIGITAL SIGNAL PROCESSING	NO. OF DAYS PER WEEK CLASS ALLOTED : 04	SEMESTER FROM 22/12/2025 TO 18/04/2026
		NO. OF WEEKS : 15 NOS.

1ST WEEK	1st	Basics of Signals, Systems & Signal processing- basic element of a digital signal processing system
	2nd	Compare the advantages of digital signal processing over analog signal processing
	3rd	Classify signals - Multi channel& Multi-dimensional signalsContinuous time verses Discrete -times Signal. -Continuous valued verses Discrete -valued signals
	4th	Concept of frequency in continuous time & discrete time signals
2NDWEEK	1st	Continuous-time sinusoidal signals-Discrete-time sinusoidal signals
	2nd	Harmonically related complex exponential
	3rd	Analog to Digital & Digital to Analog conversion
	4th	Sampling of Analog signal, The sampling theorem, Quantization of continuous amplitude signals
3RDWEEK	1st	Coding of quantized sample, Digital to analog conversion
	2nd	Analysis of digital systems signals vs. discrete time signals systems
	3rd	Concept of Discrete time signals- Elementary Discrete time signals, Classification Discrete time signal
	4th	Simple manipulation of discrete time signal
4THWEEK	1st	Discrete time system- Input-output of system
	2nd	Block diagram of discrete- time systems
	3rd	Classify discrete time system
	4th	Inter connection of discrete -time system
5THWEEK	1st	Discrete time time-invariant system-Different techniques for the Analysis of linear system
	2nd	Resolution of a discrete time signal in to impulse
	3rd	Response of LTI system to arbitrary inputs using convolution sum
	4th	Convolution & interconnection of LTI system - properties
6THWEEK	1st	Study systems with finite duration and infinite duration impulse response
	2nd	Discrete time system described by difference equation- Recursive & non-recursive discrete time system
	3rd	Determine the impulse response of linear time invariant recursive system
	4th	Correlation of Discrete Time signals
7THWEEK	1st	Discuss Z-transform
	2nd	its application to LTI system
	3rd	Direct Z-transform
	4th	Inverse Z-transform
8THWEEK	1st	Various properties of Z-transform
	2nd	Various properties of Z-transform continued
	3rd	Rational Z-transform
	4th	Poles & zeros
9THWEEK	1ST	Pole location time domain behaviour for casual signals
	2nd	System function of a linear time invariant system
	3rd	Discuss inverse Z-transform
	4th	Inverse Z-transform by partial fraction expansion
10THWEEK	1st	Practice some examples of inverse Z- transform
	2nd	Inverse Z-transform by contour Integration
	3rd	Concept of discrete Fourier transform

	4th	Frequency domain sampling and reconstruction of discrete time signals
11THWEEK	1ST	Discrete Time Fourier transformation(DTFT)
	2nd	Some problems of Discrete Time Fourier transformation(DTFT)
	3rd	Discrete Fourier transformation (DFT)
	4th	Some examples of Discrete Fourier transformation (DFT)
12THWEEK	1st	Compute DFT as a linear transformation
	2nd	Relate DFT to other transforms
	3rd	Property of the DFT
	4th	Property of the DFT continued
13THWEEK	1ST	Multiplication of two DFT & circular convolution
	2nd	Multiplication of two DFT & circular convolution continued
	3rd	Compute DFT & FFT algorithm
	4th	Direct computation of DFT
14THWEEK	1st	Divide and Conquer Approach to computation of DFT
	2nd	Radix-2 algorithm
	3rd	Small Problems of Radix - 2 algorithm
	4th	Application of FFT algorithms
15THWEEK	1st	Introduction to digital filters
	2nd	FIR Filters & General considerations
	3rd	Introduction to DSP architecture
	4th	familiarisation of different types of processor

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