DISCIPLINE: Electrical & Electronics Engg.	SEMESTER: 4th Semester	NAME OF THE TEACHING FACULTY: MRS DEEPIKA SARKAR, Lecturer -II in ETC
SUBJECT: DSP (TH-05)	NO OF DAYS/PER WEEK CLASSES ALLOTTED:03	SEMESTER FROM DATE: 22.12.2025 TO DATE: 18.04.2026 NO OF WEEKS:15

Week	Class Day	Topics
		UNIT-I:-Discrete Time Signals
1st	1st	1.1 Sequences
	2nd	1.2 Representation of signals on orthogonal basis
	3rd	1.3 Sampling and reconstruction of signals
2nd	1ST	1.4 Discrete systems attributes
	2ND	1.5 Z-Transform
	3RD	1.6 Analysis of LSI systems
3rd	1st	1.7 Frequency Analysis
	2nd	1.8 Inverse Systems
	3rd	1.9 Discrete Fourier Transform (DFT)
4th	1st	1.10 Fast Fourier Transform Algorithm
	2nd	1.10 Fast Fourier Transform Algorithm
	3rd	1.11 Implementation of Discrete Time Systems
5th	1st	1.11 Implementation of Discrete Time Systems
	2nd	DOUBT CLEARING
	3rd	PROBLEM SOLVING
		UNIT-II:-Design of FIR Digital Filters
6th	1ST	Window method
	2ND	Park-McClellan's method
	3RD	Design of IIR Digital Filters: Butterworth,
7th	1st	Chebyshev
	2nd	Elliptic Approximations
	3rd	Elliptic Approximations
8th	1ST	Low pass filters
	2ND	Low pass filters
	3RD	Band pass filters
9th	1st	Band stop filters.
	2nd	High pass filters
	3rd	High pass filters
10th	1ST	Repeat
	2ND	**Doubt clearing class**
	3RD	Monthly test
		UNIT-III:-Finite Register Length in FIR Filter Design
11th	1st	Effect of finite register length in FIR filter design.
	2nd	Effect of finite register length in FIR filter design.
	3rd	Parametric and non-parametric spectral estimation

12th	1ST	Parametric and non-parametric spectral estimation
	2ND	Parametric and non-parametric spectral estimation
	3RD	Introduction to multirate signal processing
13th	1st	Introduction to multirate signal processing
	2nd	Doubt clearing class
		UNIT-IV:-Applications of DSP
	3rd	Application of DSP to Speech signal processing.
14th	1ST	Application of DSP to Speech signal processing
	2ND	Application of DSP to Radar signal processing.
	3RD	Application of DSP to Radar signal processing
15th	1st	Repeat class
	2nd	Extra class
	3rd	Monthly test

22.12.25
Lecturer(S-II)

22.12.25
H.O.D
Electrical&Electronics Engg.

Principal
Govt.Polytechnic,Malkangiri