

DISCIPLINE: Electrical & Electronics Engg.	SEMESTER: 6TH Semester.	NAME OF THE TEACHING FACULTY: Bibhuti Gampai PTGF in EEE
SUBJECT: ACE Lab(PR3)	NO OF DAYS/PER WEEK CLASSES ALLOTTED:3	SEMESTER FROM DATE: 22.12.2025 TO 18.04.2026 NO OF WEEKS:15

Week	Period	PRACTICAL Topics
1st	1st	Setting up a fiber optic analog & digital link including source & detector.
	2nd	-----do-----
	3rd	-----do-----
2nd		Study of losses in Optical Fiber:
	1st	a) Measurement of propagation loss.
	2nd	b) Measurement of bending loss
	3rd	-----do-----
3rd	1st	c) Measurement of connector loss.
	2nd	d) How connector loss is affected by fiber and quality
	3rd	-----do-----
4th	1 ST	Measurement of Numerical aperture by using Optical Fibre Kit
	2 ND	-----do-----
	3rd	-----do-----
5th	1 ST	Setting of AM, FM, PWM, Modulator & Demodulator using optical fiber kit
	2 ND	-----do-----
	3rd	-----do-----
6th		Study the following experiments using EPABX Trainer Kit.
	1ST	a) To study extension to extension call pickup, direct onward dialing, autocall back, auto attendant, dynamic looking, last extension redial, conference call, call forward, simultaneous ringing, pulsing on trunk, follow me tone and DTMF dialing, Messages on hold, extension barring, trunk barring, caller id for extension to extension & trunk lines, individual memory, global memory, call waiting call conference
	2ND	b) Study of speech circuit using IC and its interface to line, pulse/tone dialing
	3RD	-----do-----
7th	1 ST	c) Study to subscriber ringing generation circuit and interface to the line.
	2 ND	d) Study of telephone instrument trainer with caller id facility
	3rd	-----do-----
8th		Study of satellite communication Trainer Kit:
	1 ST	a) To setup active & passive satellite communication link.
	2 ND	b) To study up linking and downlinking of satellite signals.
	3rd	-----do-----
9th	1 ST	c) To analyze the analog baseband (Voice & Video) Signals in satellite link
	2 ND	d) To study the digital baseband signals in a satellite link.
	3rd	e) To setup an analog FM/FDM satellite link
10th		Study of Rader Trainer Kit.
	1 ST	a) Study of Doppler shift in Radar.
	2 ND	b) Speed detection & multiple reflections from object.
	3rd	-----do-----
11th	1 ST	c) To find out the Time period and frequency of a moving pendulum for different heights.

	2 ND	d) To measure the size of moving objects using Radar
	3rd	e) To measure the distance traveled by moving a object.
12th	1 ST	Study of mobile communication Trainer Kit.
	2 ND	-----do-----
	3rd	-----do-----
13 th		Study of ISDN Trainer Kit.
	1st	a) Basic Rate ISDN exchange with Protocol with Protocol Analyzer
	2 nd	b) ISDN Telephone sets.
	3rd	-----do-----
14th	1 ST	c) ISDN Terminal Adaptors.
	2 ND	d) Analog Telephone sets.
	3rd	-----do-----
15th	1st	Visit to Telephone Exchange / Mobile Network / earth station / Rader Station
	2nd	-----do-----
	3rd	-----do-----

G. Bibhut
23.12.25
Lecturer

D. K. S.
HOD 22.12.25