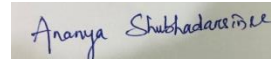


ACADEMIC LESSON PLAN OF WINTER 2022

Discipline Electrical	Semester: 3 rd Sec-A(Gr-1)	Name of the Teaching Faculty: - Ananya Shubhadarsinee & Amita Basti
Subject: - Pr-1 (Circuit Simulation Lab)	No of Days/per Week Class Allotted: 2d(3hr)/week	Semester From: -15 th Sept. 2022 to 22 nd Dec 2022 No. of Weeks: 15 weeks
Week	Class Day	Practical Topics
1 st	1 st	1. Measurement of equivalent resistance in series and parallel circuit
	2 nd	1. Measurement of equivalent resistance in series and parallel circuit
2 nd	1 st	2. Measurement of power and power factor using series R-L-C Load.
	2 nd	2. Measurement of power and power factor using series R-L-C Load.
3 rd	1 st	3. Verification of KCL and KVL
	2 nd	3. Verification of KCL and KVL
4 th	1 st	4. Verification of Super position theorem
	2 nd	4. Verification of Super position theorem
5 th	1 st	5. Verification of Thevenin's Theorem
	2 nd	5. Verification of Thevenin's Theorem
6 th	1 st	6. Verification of Norton's Theorem
	2 nd	6. Verification of Norton's Theorem
7 th	1 st	7. Verification of Maximum power transfer Theorem
	2 nd	7. Verification of Maximum power transfer Theorem
8 th	1 st	8. Determine resonant frequency of series R-L-C circuit.
	2 nd	8. Determine resonant frequency of series R-L-C circuit.
9 th	1 st	9. Study of Low pass filter & determination of cut-off frequency
	2 nd	9. Study of Low pass filter & determination of cut-off frequency
10 th	1 st	10. Study of High pass filter & determination of cut-off frequency
	2 nd	10. Study of High pass filter & determination of cut-off frequency
11 th	1 st	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
	2 nd	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
12 th	1 st	12. Introduction to P-Spice/MATLAB software.
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. i. Superposition theorem
13 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. ii. Series Resonant Circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. ii. Series Resonant Circuit
14 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit

	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
15 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit



Signature of the faculty

ACADEMIC LESSON PLAN OF WINTER 2022

Discipline Electrical	Semester: 3 rd Sec-A(Gr-2)	Name of the Teaching Faculty: - Ananya Shubhadarsinee & Amita Basti
Subject: - Pr-1 (Circuit Simulation Lab)	No of Days/per Week Class Allotted: 2d(3hr)/week	Semester From: -15 th Sept. 2022 to 22 nd Dec 2022 No. of Weeks: 15 weeks
Week	Class Day	Practical Topics
1 st	1 st	1. Measurement of equivalent resistance in series and parallel circuit
	2 nd	1. Measurement of equivalent resistance in series and parallel circuit
2 nd	1 st	2. Measurement of power and power factor using series R-L-C Load.
	2 nd	2. Measurement of power and power factor using series R-L-C Load.
3 rd	1 st	3. Verification of KCL and KVL
	2 nd	3. Verification of KCL and KVL
4 th	1 st	4. Verification of Super position theorem
	2 nd	4. Verification of Super position theorem
5 th	1 st	5. Verification of Thevenin's Theorem
	2 nd	5. Verification of Thevenin's Theorem
6 th	1 st	6. Verification of Norton's Theorem
	2 nd	6. Verification of Norton's Theorem
7 th	1 st	7. Verification of Maximum power transfer Theorem
	2 nd	7. Verification of Maximum power transfer Theorem
8 th	1 st	8. Determine resonant frequency of series R-L-C circuit.
	2 nd	8. Determine resonant frequency of series R-L-C circuit.
9 th	1 st	9. Study of Low pass filter & determination of cut-off frequency
	2 nd	9. Study of Low pass filter & determination of cut-off frequency
10 th	1 st	10. Study of High pass filter & determination of cut-off frequency
	2 nd	10. Study of High pass filter & determination of cut-off frequency
11 th	1 st	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
	2 nd	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
12 th	1 st	12. Introduction to P-Spice/MATLAB software.
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. i. Superposition theorem
13 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the

		measurements and waveforms. ii. Series Resonant Circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. ii. Series Resonant Circuit
14 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
15 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit

Ananya Shubhadarsini

Signature of Faculty

ACADEMIC LESSON PLAN OF WINTER 2022

Discipline Electrical	Semester: 3 rd Sem(Sec-B)	Name of the Teaching Faculty: - Rojalin Choudhury & Biswanita Sahu
Subject: - Pr-1 (Circuit Simulation Lab)	No of Days/per Week Class Allotted: 2d(3hr)/week	Semester From: -15 th Sept. 2022 to 22 nd Dec 2022 No. of Weeks: 15 weeks
Week	Class Day	Practical Topics
1 st	1 st	1. Measurement of equivalent resistance in series and parallel circuit
	2 nd	1. Measurement of equivalent resistance in series and parallel circuit
2 nd	1 st	2. Measurement of power and power factor using series R-L-C Load.
	2 nd	2. Measurement of power and power factor using series R-L-C Load.
3 rd	1 st	3. Verification of KCL and KVL
	2 nd	3. Verification of KCL and KVL
4 th	1 st	4. Verification of Super position theorem
	2 nd	4. Verification of Super position theorem
5 th	1 st	5. Verification of Thevenin's Theorem
	2 nd	5. Verification of Thevenin's Theorem
6 th	1 st	6. Verification of Norton's Theorem
	2 nd	6. Verification of Norton's Theorem
7 th	1 st	7. Verification of Maximum power transfer Theorem
	2 nd	7. Verification of Maximum power transfer Theorem
8 th	1 st	8. Determine resonant frequency of series R-L-C circuit.
	2 nd	8. Determine resonant frequency of series R-L-C circuit.
9 th	1 st	9. Study of Low pass filter & determination of cut-off frequency
	2 nd	9. Study of Low pass filter & determination of cut-off frequency
10 th	1 st	10. Study of High pass filter & determination of cut-off frequency
	2 nd	10. Study of High pass filter & determination of cut-off frequency
11 th	1 st	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
	2 nd	11. Analyze the charging and discharging of an R-C & R-L circuit with oscilloscope and Compute the time constant from the tabulated data and determine the rise time graphically.
12 th	1 st	12. Introduction to P-Spice/MATLAB software.
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. i. Superposition theorem
13 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. ii. Series Resonant Circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms. ii. Series Resonant Circuit
14 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit
15 th	1 st	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and

		waveforms iii. Transient Response in R-L-C series circuit
	2 nd	12. Construct the following circuits using P-Spice/MATLAB software and compare the measurements and waveforms iii. Transient Response in R-L-C series circuit

| Rojalin Choudhury |

Signature of Faculty