

1.	Title of the course	Electric Circuits and Networks
2.	Course number	EE201L
3.	Structure of credits	3-1-0-4
4.	Offered to	UG
5.	New course/modification to	Modification To EE2202/8
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	Course Objective(s): To introduce the methods required for the analysis of electrical circuits and networks. Methods for the steady-state and transient analysis of DC circuits, AC circuits will be taught in this course, Advanced circuit analysis methods like Laplace transform will also be taught.	
10.	Course Content: DC circuits: basic concepts, basic laws, methods of analysis, circuit theorems, capacitors and inductors, first order circuits, second order circuits; AC circuits: sinusoids and phasors, sinusoidal steady state analysis, AC power analysis, 3-phase circuits, magnetically coupled circuits, frequency response; Advanced circuit analysis: introduction to the Laplace transform, application of the Laplace transform, two-port networks.	
11.	Textbook(s): 1. Alexander C K and Sadiku M N O, <i>Fundamentals of Electric Circuits</i> , McGraw Hill Education (2013).	
12.	Reference(s): 1. Hayt W H, Kemmerly J and Durbin S M, <i>Engineering Circuit Analysis</i> , McGraw Hill Education (2013). 2. Kuo F F, <i>Network Analysis and Synthesis</i> , Wiley (2006). 3. Valkenburg V M E, <i>Network Analysis</i> , Prentice Hall India Learning Private Limited (1980).	