DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

This course outline template acts as a guide for writing your course outline. As every course is different, please feel free to amend the template/ format to suit your requirements.

COURSE OUTLINE TEMPLATE			
Course Title	CIRCUITS AND DEVICES LABORATORY		
Course Code	EELR10	No. of Credits	2
Department	EEE	Faculty	Mrs. S.Mageshwari
Pre-requisites Course Code	Basic electrical and electronic elements (R, L, C, Transistor)		
Course Coordinator(s) (if, applicable)	------		
Other Course Teacher(s)/Tutor(s) E-mail	----	Telephone No.	0431-2503260
Course Type	Core course		

COURSE OVERVIEW

To understand and analysis the theorems of circuit theory and characteristics of devices.

COURSE OBJECTIVES

1. Understand and analyze series and parallel circuits and measurement of single and three phase power.
2. Understand and analyze different applications of transients and characteristics of transistor.

COURSE OUTCOMES (CO)

Course Outcomes	Aligned Programme Outcomes (PO)
1. Verify the network theorems and operation of typical electrical and electronic circuits.	1,2
2. Choose appropriate equipment for measuring electrical quantities and verify the same for different circuits.	1,2,3

11/7/16

COURSE TEACHING AND LEARNING ACTIVITIES			
S.No.	Week	Topic	Mode of Delivery
1.	Week1	Characteristics of CB and CE configuration of BJT by simulation using PSPICE or LTSPICE	Practical Experimentation
2.	Week2	Characteristics of MOSFET by simulation using PSPICE or LTSPICE	Practical Experimentation
3.	Week3	Verification of KCL and KVL theorems by simulation using PSPICE and hardware	Practical Experimentation
4.	Week4	Verification of superposition theorem by simulation using PSPICE and hardware	Practical Experimentation
5.	Week5	Study of transients characteristics of R-L series DC circuit by simulation and hardware	Practical Experimentation
6.	Week6	Study of transients characteristics of R-C series DC circuit by simulation and hardware	Practical Experimentation
7.	Week7	Study of transients characteristics of R-L-C series DC circuit by simulation and hardware	Practical Experimentation
8.	Week8	Mini Project	

COURSE ASSESSMENT METHODS				
S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Preparation, observation, results, viva for exersice			70%
2.	Mini project			15%
3.	MCQ test		30 minutes	15%

ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc

1. David, A.Bell, 'Electronic Devices and Circuits', 5th Edition, PHI, 2008.
2. Millman and Halkias, `Electronic Devices and Circuits', McGrawHill International student Edition, 5th Reprint, 1993.
3. Malvino, 'Electronic Principles', PHI.2012.

COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)

1. Student's feedback through class committee meetings
2. Feedback questionnaire from students – twice during the semester
3. Feedback from students on Course Outcomes at the end of the semester

COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)

1. All the students are expected to attend all the contact hours. Anyhow students who fall short of 75% attendance to the contact hours are not eligible to appear for MCQ examination of 15% weightage.
2. Relative grading adhering to the instructions from the office of the Dean (Academic) will be adopted for the course. Anyhow 40% of the first mark scored will be fixed as the criterion for minimum pass grade (E).
3. In case of any student found guilty indulging in any mal practice, he/she will be awarded no marks in that particular experiment. If found using mobile phones or any other gadgets for any mal-practice during the MCQ written examination, the answer sheet of the student will not be evaluated and will be awarded ZERO marks in the MCQ written examination.

ADDITIONAL COURSE INFORMATION

1. The Course Coordinator is available for consultation during the time intimated to the students then and there.
2. All correspondence will be sent to the webmail id of the students alone. Hence all students are advised to check their webmail ids regularly.

FOR SENATE'S CONSIDERATION

Course Faculty S. Meenakshi **CC-Chairperson** _____ **HOD** _____