

INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

भारतीय प्रौद्योगिकी संस्थान तिरुपति

1.	Title of the course	Analog Circuits Laboratory
2.	Course number	EE301P
3.	Structure of credits	0-0-3-2
4.	Offered to	UG
5.	New course/modification to	Modification To EE3191/8
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	Course Objective(s): The objective of this course is to provide students with sufficient fundamental practical knowledge in analog integrated circuits	
10.	Course Content: The Lab has experiments based on 1. Familiarization of SPICE based Software. 2. Diodes: clippers, clampers, voltage doubler and peak detector. 3. Negative feedback amplifiers, instrumentation amplifier. 4. Precision rectifiers, integrators and differentiators with their frequency response. 5. Characteristics of CE, CC, CB amplifiers. 6. Frequency response of CE amplifier, transistor as a switch. 7. MOSFET as an amplifier with their frequency response 8. Oscillators 9. Voltage regulators 10. Filters	
11.	Textbook(s): 1. Sedra A and Smith K, Microelectronic circuits: theory and applications, Oxford (2017).	
12.	Reference(s): 1. Boylestad R L and Nashelsky L, <i>Electronic devices and circuit theory</i> , Pearson (2009).	