



**B. P. Poddar Institute of Management & Technology**

**Department of Electronics & Communication Engineering**

**Academic Year: 2018-2019**

**Semester: Odd**



**Laboratory Name: Aryabhata Laboratory**

**Room No.: B - 503**

**Course Name: Analog and Digital Electronics Laboratory (CS-391)**

**2 CSE/ IT 1<sup>st</sup> Semester**

**List of Experiments to be conducted**

Sl. No.	Name of Experiment	CO	PO	PSO1	PSO2
	Analog :-				
1	Design a Phase-Shift Oscillator	1	1,9	1	1
2	Design of a Schmitt Trigger using 555 timer	2	1,3,9	1	1
	Digital :-				
1	Design a Full Adder using basic gates and verify its output / Design a Full Subtractor circuit using basic gates and verify its output	4	1,3,9	1	1
2	Construction of simple Decoder & Multiplexer circuits using logic gates	4	1,3,9	1	1
3	Realization of RS / JK / D flip flops using logic gates	3,5	1,3,9	1	1
4	Design of Shift Register using J-K / D Flip Flop	3,5	1,3,9	1	1

5	Realizations of Synchronous Up/Down counter	3,5	1,3,9	1	1
6	<b><u>One Beyond syllabus experiment:</u></b>				
	1. Conversion of Flip-flop: D from JK	1,3,5	1,2,3,9	1	1
	2. Code conversion: Gray to Binary and Binary to Gray.	1,2,4	1,2,3,9	1	1
7	<b><u>One Micro Project:</u></b>				
	1.Design of a 2 bit multiplier using logic gates		1,2,3,9	1	1
	2. Design of an active filter		1,9	1	1
	3. Design or a differential amplifier using Op-Amp to get a specific voltage		1,9	1	1