

**GOVERNMENT ENGINEERING COLLEGE, DAHOD (018)**

**COMPUTER ENGINEERING DEPARTMENT (07)**

**SUBJECT: BASIC ELECTRONICS (2110016)**

**PRACTICAL LIST**

**SEMESTER : SEM-2**  
**FACULTY : VAISHALI NAYAK**

<b>SR. NO.</b>	<b>PRACTICAL</b>
<b>1</b>	(A)Observe the behavior of RLC circuits with ideal and non-ideal voltage sources and current sources. (B) Verify Thevenin's and Norton's Theorems.
<b>2</b>	Simulate passive electrical circuits using Multisim simulator and compare the simulated response with that of the actual circuit.
<b>3</b>	Determine the parameters of three commercial Op Amps.
<b>4</b>	Perform simple analog signal processing functions using Op Amps .
<b>5</b>	Design simple combinational functions as per specifications and verify the correctness of your design.
<b>6</b>	Design simple sequential functions as per specifications and verify the correctness of your design.
<b>7</b>	Measure the characteristics of given DACs and ADCs.
<b>8</b>	Simulate simple modulation, sampling, multiplexing, demodulation signal processing functions Multisim.
<b>9</b>	Simulate simple filtering signal processing function Multisim.
<b>10</b>	Measure the performance of a given signal processing system.
<b>11</b>	Determine the behavior of a given analog communication system through simulation using Multisim.
<b>12</b>	Determine the behavior of a given digital communication system through simulation using Multisim.
<b>13</b>	Determine the behavior of a second and third order control systems through simulation using Multisim.
<b>14</b>	Determine the behavior of a practical control system using ON-OFF and P controllers through simulation using SciLab. Determine the behavior of a practical control system using PI and PID controllers through simulation using SciLab.