

**LESSON PLAN**  
**FUNDAMENTALS OF ELECTRONICS ENGINEERING**  
**Course Code- TH 4(a)**

NAME: NIHARIKA SETHY , LECT: ETC, W.E.F: 09.01.2026 TO 08.05.2026  
SUB: FUNDAMENTALS OF ELECTRICAL & ELECTRONICS ENGG.  
SEM: 2<sup>ND</sup>, BRANCH: MECH ENGG , CIVIL ENGG , PME ENGG

NO OF PERIODS/WEE:2	TOPICS TO BE COVERED	REMARK
<b>WEEK-1</b>	<b>UNIT I: Overview of Electronic Components &amp; Signals:</b> 1. Passive Active Components: Resistances, Capacitors, Inductors, 2. Concept and simple problems of Resistance, Capacitor & Inductor	
<b>WEEK-2</b>	3. Diodes, Definition, classification and Working of diode (PN junction, LED, Zener) 4. Transistors,	
<b>WEEK-3</b>	5. FET, 6. Types of FET,	
<b>WEEK-4</b>	7. MOS and CMOS 8. MOS and CMOS Applications	
<b>WEEK-5</b>	9. Signals: DC/AC, voltage/current, 10. periodic/non-periodic signals.	
<b>WEEK-6</b>	11. Average, 12. rms, peak values,	
<b>WEEK-7</b>	13. Different types of signal waveforms. 14. Ideal/non-ideal voltage/current sources. Independent / dependent voltage current sources. (Definitions)	
<b>WEEK-8</b>	<b>UNITII Overview of Analog Circuits:</b> 15. Operational Amplifiers-Ideal Op-Amp, 16. Practical op amp, Open loop and closed loop configurations	
<b>WEEK-9</b>	17. Application of Op-Amp as amplifier. 18. Adder, Subtractor, Differentiator and Integrator.	
<b>WEEK-10</b>	<b>UNIT III Overview of Digital Electronics:</b> 19. Introduction to Boolean Algebra. 20. Boolean Algebra.	
<b>WEEK-11</b>	21. Electronics Implementation of Boolean Operations. 22 Gates-Functional Block & Approach.	
<b>WEEK-12</b>	23.(Simple problems of Number system) 24. (Simple problems of Number system)	
<b>WEEK-13</b>	25. Storage elements-Flip Flops- 26. Flip Flops.	
<b>WEEK-14</b>	27. A Functional block approach, Counters: 28. Ripple, Up / down and decade.	
<b>WEEK-15</b>	29. Introduction to digital IC Gates (of TTL Type). 30. .Introduction to digital IC Gates (of TTL Type).	