UNIVERSITY COLLEGE OF ENGINEERING,BIT CAMPUS,ANNA UNIVERSITY, TIRUCHIRAPPALLI

RESONX 2K25

EVENT 2

AMP ALERT

EXCITING PRIZES & SWAG

>>> "EVERY SECOND, EVERY WIRE. MATTERS"

RACE THROUGH FAULTS AND CHALLENGES BEFORE TIME RUNS OUT!

📅 **05th NOV**

AMP ALERT

1. UNDERSTAND THE CIRCUIT THOROUGHLY
STUDY THE SCHEMATIC AND FUNCTION OF EACH COMPONENT TO KNOW EXPECTED BEHAVIOR AND SIGNAL FLOW BEFORE STARTING DEBUGGING.

2. PERFORM A CAREFUL VISUAL INSPECTION
CHECK FOR OBVIOUS FAULTS SUCH AS BURNT COMPONENTS, LOOSE CONNECTIONS, COLD SOLDER JOINTS, INCORRECT WIRING, AND POWER SUPPLY ERRORS.

3. USE SYSTEMATIC DEBUGGING METHODS
APPLY TECHNIQUES LIKE THE FUNCTIONAL BLOCK APPROACH (ISOLATING WORKING VS FAULTY SECTIONS) AND SPLIT-HALF METHOD (DIVIDE AND TEST CIRCUIT HALVES) TO NARROW FAULT LOCATION EFFICIENTLY.

4. EMPLOY THE RIGHT TOOLS
UTILIZE MULTIMETERS, OSCILLOSCOPES, LOGIC ANALYZERS, AND FUNCTION GENERATORS TO MEASURE VOLTAGES, CURRENTS, AND SIGNALS AT KEY TEST POINTS.

5. TEST AND CORRECT INCREMENTALLY
TEST SMALL SECTIONS INDEPENDENTLY, FIX IDENTIFIED FAULTS, THEN RETEST THE ENTIRE CIRCUIT TO ENSURE ERROR CORRECTION AND CIRCUIT FUNCTIONALITY.

CHANCE OF IDENTIFYING THE CIRCUIT IS MINIMUM 1 OR 2