Installed Components (Per Lab Setup)

1. Low Voltage Electrical Installation Training Cubicles

QTY – 5 NOS

Mechanical Construction:

- Wooden Cubicle with MS Frame
- Dimensions: 1.2m (H) x 1.2m (W) x 0.9m (D)
- Modular mounting arrangement
- Suitable for practical wiring and protection experiments

Sl. No	Component Description	Quantity
1	DB 3 Tier – 36 Modules	10
2	RCCB 2P 40A 30mA AC Type	10
3	MCB 1P 6A C Curve 10kA	20
4	MCB 1P 10A C Curve 10kA	10
5	MCB 1P 16A C Curve 10kA	10
6	MCB 1P 25A C Curve 10kA	10
7	40A 3NO 220–240VAC Contactor	10
8	ITL 16A 2NO 230/240VAC	10
9	24H Time Switch (Without Power Reserve)	5

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

10	Electronic Timer (30 sec – 20 min)	5
11	Mount Sensor	5
12	Ceiling Mount 360° Occupancy Sensor	5
13	6A Bell Push Switch	10
14	6A 1-Way Switch	10
15	6A 2-Way Switch	10
16	20A DP Switch with Indicator	40
17	6A Universal Socket with Shutter	80
18	6A/16A 3-Pin Socket Outlet	80
19	Electronic Step Fan Regulator	80
20	3M Universal Grid & Cover Frame	20
21	4M Grid & Cover Frame	20
22	8M Grid & Cover Frame	10
23	Blank Off Cover	60

2. Study Case for Grounding Scheme & Selectivity (TT System)

Quantity: 1 No

Objective:

Designed for studying protection of persons and property in an installation using a TT grounding scheme.

The system allows:

- Fault simulation
- Differential protection testing
- Selectivity coordination
- Human body simulation using resistive networks

Sl. No	Component	Quantity
1	Isolating Transformer	1
2	Set of Resistors(Human Body Simulation)	1
3	Vigirex Differential Relay	1
4	Circuit Breaker with Voltage Emission Trip	1
5	Circuit Breaker with 300mA Differential	1
6	Circuit Breaker with 30mA Differential	1
7	Fault Simulation Push Button	1
8	General Protection Circuit Breaker	1
9	Power Supply Cable	1

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

3. Study Box for Compensation of Reactive Energy

Quantity: 1 No

Objective:

To study:

- Power factor
- Phase angle displacement
- Reactive power compensation
- Linear and nonlinear load behavior

System Configuration:

- 3 Linear Loads (Halogen Lamps)
- 1 Inductive Non-linear Load
- 8 Capacitors for Step Compensation
- Independent Switching for Each Element
- Measurement Points for Voltage & Current

Sl. No	Component	Quantity
1	Halogen Lamps with Dimmer	3
2	Phase Offset Induction Coil	1
3	Capacitors	8
4	Capacitor Control Switches	8
5	Lamp Control Switches	3
6	Induction Coil Switch	1
7	Dimmer Shunt Switch	1
8	Light Dimmer	1
9	Current Measurement Point	1
10	Voltage Measurement Point	1
11	Power Lead	1

4. Engineering Software Package

- EPLAN offers a free educational version
- So if you are a student or trainee, you can get EPLAN free for education purposes (with limitations) by registering on the EPLAN Education site.

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