

Electrical Engineering Department

No.	Experiments	Web site
1	Substation Automation Lab (11)	sa-nitk.vlabs.ac.in/vlab.co.in
2	Virtual Power Lab(9)	vlab.co.in
3	Industrial Electric Drives Lab(9)	ied-nitk.vlabs.ac.in/vlab.co.in
4	Industrial Automation Lab(7)	vlab.co.in
5	Electrical Machines (COEP) Lab (8)	vlab.co.in
6	Electrical Machines (IITG) Lab (9)	vlab.co.in
7	PLC Lab (8)	vlab.co.in
8	Ergonomics Lab for Assessing Physical Aspects of Design Lab(10)	vlab.co.in
9	Sensors Modeling & Simulation Lab (8)	vlab.co.in
10	Virtual High Voltage Laboratory(6)	vlab.co.in
11	Creative Design, Prototyping & Experiential Simulation Lab(16)	vlab.co.in
12	Real Time Embedded Systems Lab	vlab.co.in

1-Industrial Electric Drives Lab

No.	Experiments	Web site
1-1	<u>PLC TIMER INSTRUCTION</u> - Experiment 1: PLC On-Delay Timer Instruction - Experiment 2: PLC Off-Delay Timer Instruction - Experiment 3: PLC Retentive Timer On Instruction	ied-nitk.vlabs.ac.in/ vlab.co.in
1-2	<u>PLC COUNTER INSTRUCTION</u> - Experiment 1 :PLC COUNT-UP INSTRUCTION - Experiment 2 :PLC COUNT-DOWN INSTRUCTION	ied-nitk.vlabs.ac.in/ vlab.co.in
1-3	<u>APPLICATION OF PLC</u> Experiment 1 :Garage Shutter Opening and Closing Using PLC: Experiment 2 :Container Filling Process Using PLC Experiment 3 : Simultaneous output interlock using PLC Experiment 4 :Maximum Simultaneous Operations Limiter using PLC Experiment 5 : Motor forward and reverse direction control using PLC	ied-nitk.vlabs.ac.in/ vlab.co.in

2- Electrical Machines (COEP)

No.	Experiments	Web site
2-1	Load Test On Separately Excited DC Motor	em-coep.vlabs.ac.in vlab.co.in
2-2	Speed Control of Separately Excited DC Motor	em-coep.vlabs.ac.in vlab.co.in
2-3	No Load Test on Three Phase Induction Motor	em-coep.vlabs.ac.in vlab.co.in
2-4	Blocked Rotor Test on Three Phase Induction Motor	em-coep.vlabs.ac.in vlab.co.in
2-5	Open Circuit Test on Three Phase Alternator	em-coep.vlabs.ac.in vlab.co.in
2-6	Short Circuit Test on Three Phase Alternator	em-coep.vlabs.ac.in vlab.co.in
2-7	Load Test on Three Phase Alternator	em-coep.vlabs.ac.in vlab.co.in
2-8	V and Inverted V curves of Synchronous Motor	em-coep.vlabs.ac.in vlab.co.in

3-Electrical Machines (IITG) Lab

No.	Experiments	Web site
3-1	Magnetic Field Behaviour in single coil	vem-iitg.vlabs.ac.in/ vlab.co.in
3-2	Rotating Magnetic Field Behaviour in two coils	vem-iitg.vlabs.ac.in/ vlab.co.in
3-3	Rotating Magnetic Field Behaviour in three coils	vem-iitg.vlabs.ac.in/ vlab.co.in
3-4	The DC Test for Stator Resistance	vem-iitg.vlabs.ac.in/ vlab.co.in
3-4	No-Load Test	vem-iitg.vlabs.ac.in/ vlab.co.in
3-5	Blocked-Rotor Test	vem-iitg.vlabs.ac.in/ vlab.co.in
3-6	Stator Resistance Starter	vem-iitg.vlabs.ac.in/ vlab.co.in
3-7	Auto Transformer Starting	vem-iitg.vlabs.ac.in/ vlab.co.in
3-8	Star-Delta Starting	vem-iitg.vlabs.ac.in/ vlab.co.in

4-PLC Lab

No.	Experimens	Web site
4-1	Study hardware and software used in PLC	plc-coep.vlabs.ac.in/ vlab.co.in
4-2	Implementation Logic Gates	plc-coep.vlabs.ac.in/ vlab.co.in
4-3	Implementation Of DOL Starter	plc-coep.vlabs.ac.in/ vlab.co.in
4-4	Implementation Of On-Delay Timer	plc-coep.vlabs.ac.in/ vlab.co.in
4-4	Implementation Of Off-Delay Timer	plc-coep.vlabs.ac.in/ vlab.co.in
4-5	Implementation Of Up-Down Counter	plc-coep.vlabs.ac.in/ vlab.co.in
4-6	Implementation Of PLC Arithmetic Instructions	plc-coep.vlabs.ac.in/ vlab.co.in
4-7	Implementation Of PID Controller	plc-coep.vlabs.ac.in/ vlab.co.in
4-8	Study hardware and software used in PLC	vlab.iitR.ac.in vlab.co.in

5-Virtual High Voltage Laboratory

No.	Experimens	Web site
5-1	Study Of Impulse Voltage Generator	vlab.co.in
5-2	Parametric Analysis Of Impulse Voltage Waveform	vlab.co.in
5-3	Study Of Impulse Current Generator	vlab.co.in
5-4	Parametric Analysis Of Impulse Current Waveform	vlab.co.in
5-5	Critical Flashover of a Sphere Gap using IVG	vlab.co.in
4-6	Study of Rectangular Pulse Current Generator	vlab.co.in
5-6	Functioning of Voltage Doubler	vlab.co.in
5-7	3-Stage Cockroft Walto	vlab.co.in
5-8	3-Stage Cockroft Walton Voltage Multiplier	vlab.co.in