




MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering

Lab Equipments : 2019-20

S.N O	NAME OF THE EQUIPMENT	IMAGE	DETAILS OF EQUIPMENT	QUANTITY
1	FUNCTION GENERATOR		Physitech Electronics, 1 M Hz PHY-102 FAR	10
2	DIGITAL STORAGE OSCILLOSCOPE		KEY SIGHT EDUX1002A 50 MHz, 1GSa/s	5
3	SOLAR SIMULATOR		CROMA 62020H-150S Programmable Dc Power Supply	1

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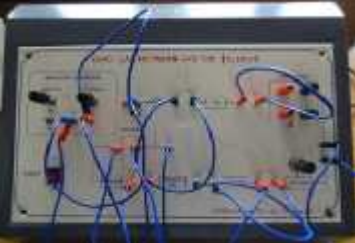

Name of lab: Control Systems Laboratory








Room No : WB 120

Photograph of Control Systems Laboratory



List of Equipment in Control Systems Laboratory

S. No.	Equipment Image	Equipment Name
1		Transfer Function of DC Motor along with motor set
2		DC Servo motor Controller
3		Process Control Simulator
4		Simulation of Transfer Function using Op-Amp Kit
5		Lead-Lag Compensation
6		Pulse Counting using DC motor

7		Temperature Controller using PID
8		Magnetic amplifier
9		Basic PLC trainer kit with PC, trainer kit, traffic light controller, temperature controller, water level and DOL
10		Synchro transmitter receiver kit
11		AC servo motor
12		Regulated Power Supply unit (0-30)V
13		Cathode Ray Oscilloscope 20 MHz

14		Time Response of Second order System
15		Storage Oscilloscope
16		NI My Rio hardware with Qube Servo

A Sample Photograph of students carrying out experiment



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering





Name of lab: Electrical Circuits Laboratory





Room No: WB 120

Photograph of Electrical Circuits Laboratory



List of Equipment in Electrical Circuits Laboratory

S. No.	Equipment Image	Equipment Name
1		Bread Board
2		Function generator
3		Logic gates
4		Decade Resistance box

5	 A white rectangular box with four rotary switches on the front panel, each with a scale. To the right, there are three colored terminals: red, black, and green.	Capacitance box
6	 A white rectangular box with four rotary switches on the front panel, each with a scale. To the right, there are three colored terminals: red, black, and green. The brand name 'PUREXAN' is visible at the bottom.	Inductance box
7	 A white rectangular box with two red digital displays at the top. Below the displays are several rotary switches and a row of colored terminals (red, green, black, blue, red, black).	Regulated Power Supply Unit
8	 A white rectangular box with a CRT screen on the left side. The right side of the front panel is filled with various control knobs, switches, and input ports.	Cathode Ray Oscilloscope

9		Servo Stabilizer 10KVA
10		Three Phase Auto transformer
11		Single phase transformer-2KVA

A Sample Photograph of students carrying out experiment



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering








Name of lab: Electrical Machines Laboratory








Room No : WB 012

Photograph of Electrical Machines Laboratory



List of Equipment in Electrical Machines Laboratory

S. No.	Equipment Image	Equipment Name
1		<p align="center">DC Shunt Motor-DC Shunt Generator Set</p>
2		<p align="center">DC Shunt Motor-DC compound Generator Set</p>
3		<p align="center">3HP DC Series motor-DC Series Generator Set</p>
4		<p align="center">DC Shunt Motor with loading arrangement</p>
5		<p align="center">DC Compound Motor with loading arrangement</p>
6		<p align="center">DC Shunt Motor-DC Series Generator set</p>
7		<p align="center">1-Ø Induction motor, 1HP with loading arrangement</p>

8		<p>3-\emptyset squirrel cage Induction motor with loading arrangement</p>
9		<p>3-\emptyset slip ring Induction motor with loading arrangement</p>
10		<p>DC Shunt Motor 3.7KW - 3-\emptyset Alternator 3.5KVA set with 3-Point starter</p>
11		<p>DC Shunt Motor 3.7KW - 3-\emptyset Alternator 3.5KVA set with 3-Point starter cylindrical type</p>
12		<p>1-\emptyset Transformer Closed Type 2KVA</p>
13		<p>1-\emptyset Transformer open Type 2KVA</p>
14		<p>1-\emptyset transformers 2KVA with 50%, 86.6% tapings</p>

15		1- \emptyset Autotransformers
16		Booster Transformer 230v,50A
17		3- \emptyset Autotransformers
18		1- \emptyset Resistive load 5A
19		3- \emptyset /1.5w Resistive load (6steps)
20		Digital Contact Type Tachometers
21		Tachometers Analog Type

22		Energy Meter(5-10A,240V)
23		Digital Multi Meters
24		Tong tester(Clamp meter)
25		Stopwatch
26		Fire Extinguishers DCP & CO2

A Sample Photograph of students carrying out experiment



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering







Name of lab: Electrical Measurements Laboratory

Room No : WB 119






Photograph of Electrical Measurements Laboratory



List of Equipment in Electrical Measurements Laboratory

S. No.	Equipment Image	Equipment Name
1	 A white, rectangular metal cabinet with a control panel on the front. The panel includes a large circular gauge on the right, a smaller gauge on the left, and several indicator lights and switches at the bottom.	Transformer oil testing kit
2	 A green printed circuit board (PCB) with a white border. It features a central diamond-shaped bridge circuit with various electronic components like resistors, capacitors, and a central meter. A red power switch is visible on the left side.	Schering bridge
3	 A green PCB with a white border, similar to the Schering bridge. It features a diamond-shaped bridge circuit with a central meter and various components. A red power switch is on the left.	Anderson bridge
4	 A green PCB with a white border, featuring a more complex bridge circuit with multiple resistors and a central meter. A red power switch is on the left.	Kelvin double bridge
5	 A black metal cabinet with a large, semi-circular scale on the right side. A white label with technical specifications is on the left side of the cabinet.	Single phase power factor meter
6	 A black metal cabinet with a large, circular scale on the right side. The scale has a yellow pointer and is marked with numerical values. A white label is on the left side.	Crompton DC Potentiometer

7		<p>Phase shifting transformer with stepless control</p>
8		<p>Three phase auto transformer</p>
9		<p>Single phase inductive load</p>
10		<p>Three phase inductive load</p>

<p>11</p>	 <p>A photograph of a three-phase capacitive load experimental setup. The setup is housed in a dark metal cabinet with a control panel on the right side. The panel features several analog meters and indicator lights. A label at the top of the panel reads "CAPACITIVE LOAD 7.71 x 10^5 VAR".</p>	<p>Three phase capacitive load</p>
<p>12</p>	 <p>A photograph of a photo optical bench. It consists of a metal frame with a central horizontal rail. A vertical rod is attached to the rail, and a lens is mounted on it. The setup is used for studying the properties of light and lenses.</p>	<p>Photo optical bench</p>
<p>13</p>	 <p>A photograph of a strain gauge experimental setup. The setup is mounted on a wooden board and includes a strain gauge, a Wheatstone bridge circuit, and a galvanometer. A diagram of the bridge circuit is visible on the board.</p>	<p>Strain guage</p>
<p>14</p>	 <p>A photograph of a servo stabilizer. It is a white metal cabinet with a control panel on the front. The panel features several analog meters, a central display, and several control knobs and buttons.</p>	<p>Servo stabilizer</p>
<p>15</p>	 <p>A photograph of a voltage ratio box. It is a black metal cabinet with a control panel on the front. The panel features several analog meters and a central display. A label on the panel reads "TO POTENTIOMETER 1.5V".</p>	<p>Voltage ratio box</p>

16		Fire extinguisher
17		Single phase auto transformer

A Sample Photograph of students carrying out experiment



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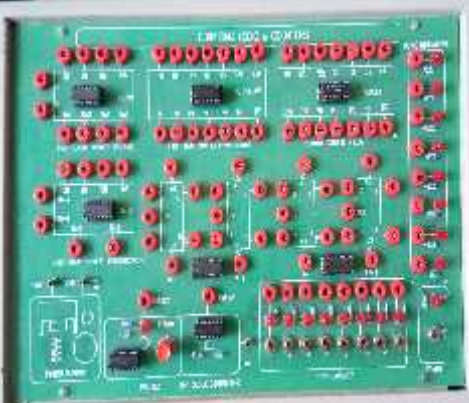

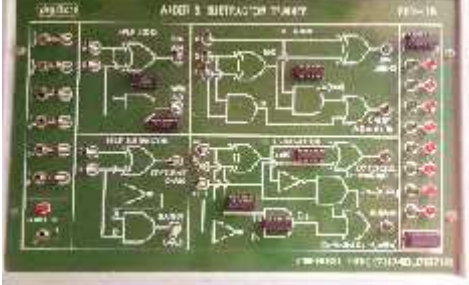

Name of lab: Electronics Practical's Laboratory

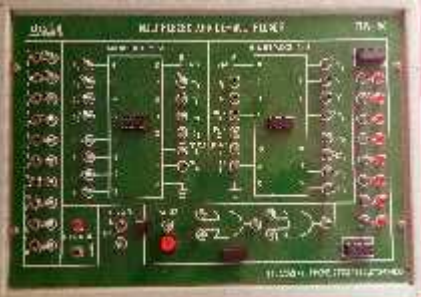

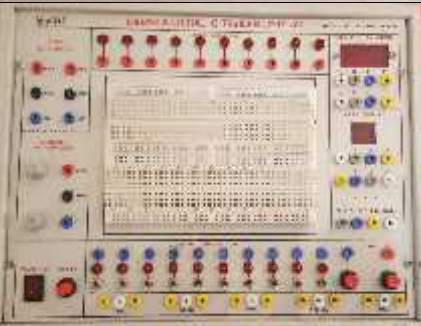
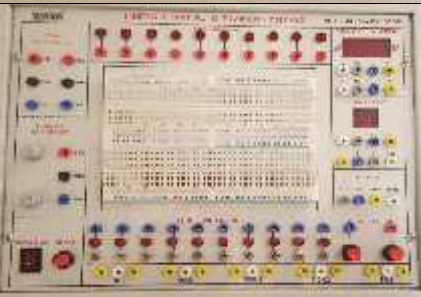

Room No : WB 119



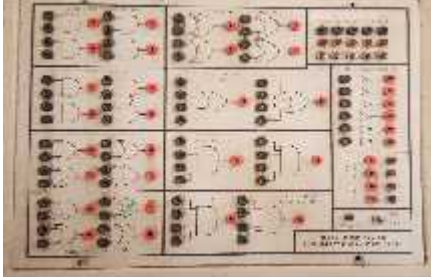
Photograph of Electronics Practical's Laboratory



List of Equipment in Electronics Practical's Laboratory

S. No.	Equipment Image	Equipment Name
1		4 BIT SYNCHRONOUS AND ASYNCHRONOUS COUNTER
2		REGULATED POWER SUPPLIES 0-30V,2A
3		HALF ADDER AND FULL ADDER KIT
4		ENCODER AND DECODER KIT

5		MULTIPLEXER AND DEMULTIPLEXER KIT
6		SHIFT REGISTER KIT
7		LINEAR DIGITAL IC KITS
8		LINEAR DIGITAL IC KITS
9		FUNCTION GENERATOR

10		DIGITAL MULTIMETER
11		SEMI CONDUCTOR TRAINER KIT DC 30-0-30V 2A, AC 12-0-12-50HZ
12		LOGIC GATES

A Sample Photograph of students carrying out experiment












MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE
UGC-Autonomous
MADANAPALLE-517325
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Name of lab: Microprocessor and Interfacing Laboratory

Room No : WB 220

Lab Area : 12X9 sq.m

Lab Name: Microprocessor and Interfacing Practicals				
S. No.	Equipment Name	Quantity	Equipment Image	Frequency of maintenance
1	8086/8088 Microprocessor trainer kit	10		Yearly Once
2	8051 Micro Controller Trainer Kit	03		Yearly Once
3	8259 Study card Interfacing kit	02		Yearly Once
4	8279 Study card Interfacing kit	02		Yearly Once
5	Traffic Light Controller Interfacing kit	02		Yearly Once
6	ADC Study card Interfacing kit	02		Yearly Once

7	Dual DAC Study card Interfacing kit	02		Yearly Once
8	8251/8253 Study card Interfacing kit	02		Yearly Once
9	8255	02		Yearly Once
Total Equipment's in the laboratory		27		Yearly Once



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE
UGC-Autonomous
MADANAPALLE-517325
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Name of lab: Microprocessor and Interfacing Practical's

Room No : WB 220

Lab Area : 12 X 9 sq.m

SI NO	NAME	QUANTITY	Frequency of Maintenance
1	LIGHTS	4	Whenever Required
2	FANS	6	Whenever Required
3	WORKBENCHES	7	Whenever Required
4	SYSTEMS	29	Whenever Required
5	CHAIRS	39	Whenever Required
6	STOOLS	0	Whenever Required
7	WORKTABLE	0	Whenever Required
8	SYSTEMS WITH UPS CONNECTION AND INTERNET FACILITY	29	Whenever Required
9	PROJECTOR	NIL	-
10	BLACKBOARD	1	Whenever Required

MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering









Name of lab: Power Electronics Laboratory

Room No : WB 116

Photograph of Power Electronics Laboratory



List of Equipment in Power Electronics Laboratory

S. No.	Equipment Image	Equipment Name
1		1 – Ø Ac Voltage Controller
2		Forced Commutation Circuits Unit
3		Single phase Fully controlled Bridge converter
4		Dc Jones Chopper
5		1 – Ø Cyclo Converter
6		1 – Ø Series Inverter
7		1 – Ø Half Converter
8		3 – Ø Half Controlled Bridge Converter

9		1 – Ø Dual Converter
10		1 – Ø Parallel Inverter
11		Stabilizer
12		SCR, MOSFET, IGBT, TRIAC, AND DIAC Characteristics Studying Unit
13		Gate firing Circuits of SCR Using R, RC, UJT
14		DSO

A Sample Photograph of students carrying out experiment



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering





Name of lab: Power System Laboratory





Room No : WB 012

Photograph of Power System Laboratory



List of Equipment in Power System Laboratory

S. No.	Equipment Image	Equipment Name
1	 A photograph of a white, rack-mounted electrical relay. The top section has a transparent window showing internal components. Below it is a control panel with several analog meters, switches, and a large circular terminal block on the right. Colored wires are connected to the terminals.	OVER CURRENT RELAY – ELECTROMAGNETIC TYPE
2	 A photograph of a white, rack-mounted electrical relay. It features a control panel with multiple meters, switches, and a terminal block on the right side. Wires are connected to the terminals.	STATIC NEGATIVE SEQUENCE RELAY
3	 A photograph of a white, rack-mounted electrical relay. The top part has a transparent window. The control panel below includes several meters, switches, and a terminal block on the right. Wires are connected to the terminals.	OVER VOLTAGE RELAY – ELECTROMAGNETIC TYPE
4	 A photograph of a white, rack-mounted electrical relay. The control panel features several meters, switches, and a terminal block on the right. Wires are connected to the terminals.	OVER VOLTAGE RELAY – MICROPROCESSOR TYPE

5		<p>% BASED DIFFERENTIAL RELAY –STATIC</p>
6		<p>THREE WINDING TRANSFORMER KIT LPM WATTMETER 300/600/5A-2NO, 3PH AUTO T/F (440/470V/10A), -1NO, AC VOLT METER-(0-600V)1NO AC AMMETER-(0-10A)1NO</p>
7		<p>PERFORMANCE OF TRANSMISSION LINE MODULE</p>
8		<p>DIFFERENTIAL PROTECTION ON 1-PH TRANSFORMER</p>

9		STRING INSULATOR TESTING KIT
10		LEAKAGE CURRENT ON PIN INSULATOR

A Sample Photograph of students carrying out experiment



MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering



Name of lab: Simulation Laboratory

Room No : WB 220

Photograph of Simulation Laboratory



List of Equipment in Simulation Laboratory

S. No.	Equipment Image	Equipment Name
1		<p>HCL INFINITI A380 PRO Processor : Intel Core i3-3220 3rd generation, 3.3GHz Chipset : Intel H61 RAM : 2 GB HDD : 500 GB Monitor : 18.5" TFT</p> <p>NIC : 10/100/1000 Mbps</p>
2		<p>Fire Extinguisher</p>

A Sample Photograph of students carrying out experiment

