MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering

Lab Equipments : 2019-20

S.NO	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

MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

Department of Electrical & Electronics Engineering

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		**Capacitance box**
6		**Inductance box**
7		**Regulated Power Supply Unit**
8		**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		DC Shunt Motor-DC Shunt Generator Set
2		DC Shunt Motor-DC compound Generator Set
3		3HP DC Series motor-DC Series Generator Set
4		DC Shunt Motor with loading arrangement
5		DC Compound Motor with loading arrangement
6		DC Shunt Motor-DC Series Generator set
7		1-Ø Induction motor, 1HP with loading arrangement

8			**3-Ø squirrel cage Induction motor with loading arrangement**
9			**3-Ø slip ring Induction motor with loading arrangement**
10			**DC Shunt Motor3.7KW - 3-Ø Alternator 3.5KVA set with 3-Point starter**
11			**DC Shunt Motor3.7KW - 3-Ø Alternator 3.5KVA set with 3-Point starter cylindrical type**
12			**1-Ø Transformer Closed Type 2KVA**
13			**1- Ø Transformer open Type 2KVA**
14			**1- Ø transformers 2KVA with 50%,86.6% tapings**

15			1- Ø Autotransformers
16			Booster Transformer 230v,50A
17			3-Ø Autotransformers
18			1- Ø Resistive load 5A
19			3-Ø/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		Transformer oil testing kit
2		Schering bridge
3		Anderson bridge
4		Kelvin double bridge
5		Single phase power factor meter
6		Crompton DC Potentiometer

7		**Phase shifting transformer with stepless control**
8		**Three phase auto transformer**
9		**Single phase inductive load**
10		**Three phase inductive load**

11		**Three phase capacitive load**
12		**Photo optical bench**
13		**Strain guage**
14		**Servo stabilizer**
15		**Voltage ratio box**

16		**Fire extinguisher**
17		**Single phase auto transformer**

A Sample Photograph of students carrying out experiment

MADANAPALLE INSTITUTE OF TECHNOLOGY AND SCIENCE

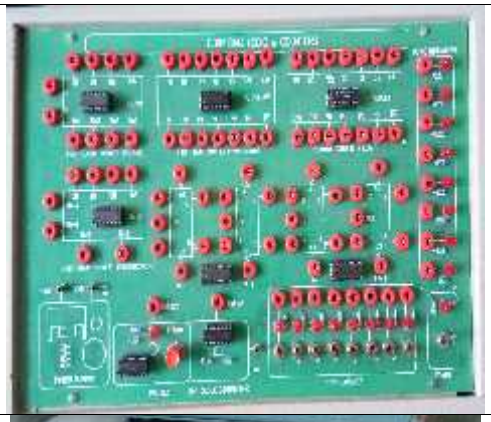
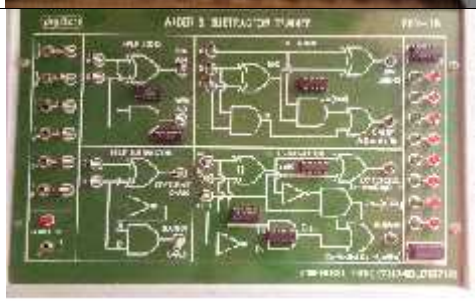
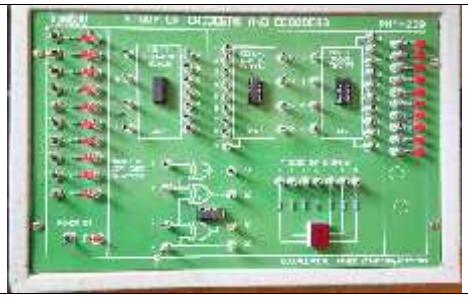
Department of Electrical & Electronics Engineering

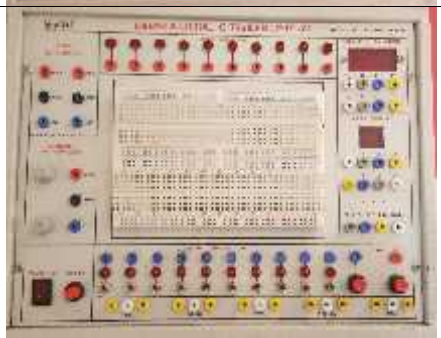
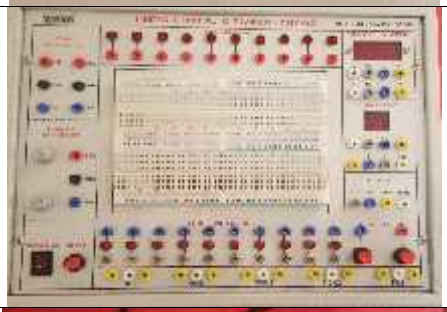
Name of lab: Electronics Practical's Laboratory

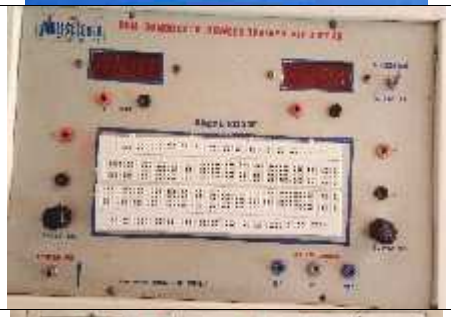
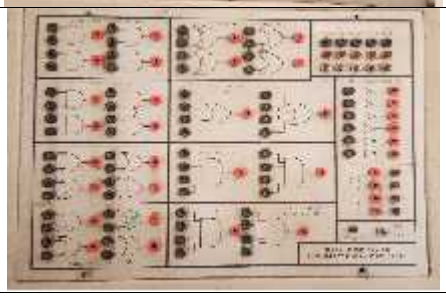
Room No : WB 119

Photograph of Electronics Practical's Laboratory

List of Equipment in Electronics Practical's Laboratory

S. No.	Equipment Image	Equipment Name
1		4 BIT SYNCHRONUS 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
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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		OVER CURRENT RELAY – ELECTROMAGNETIC TYPE
2		STATIC NEGATIVE SEQUENCE RELAY
3		OVER VOLTAGE RELAY – ELECTROMAGNETIC TYPE
4		OVER VOLTAGE RELAY – MICROPROCESSOR TYPE

5			% BASED DIFFERENTIAL RELAY –STATIC
6			THREE WINDING TRANSFORMER KIT LPF WATTMETER300/600/5A-2NO,3PH AUTO T/F (440/470V/10A),-1NO, AC VOLT METER-(0-600V)1NO AC AMMIETER(0-10A)1NO
7			PERFORMANCE OF TRANSMISSION LINE MODULE
8			DIFFERENTIAL PROTECTION ON 1-PH TRANSFORMER

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		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 NIC : 10/100/1000 Mbps
2		Fire Extinguisher

A Sample Photograph of students carrying out experiment