



**Hindusthan College of Engineering and Technology**  
**Coimbatore 641 032**  
**Department of Electrical and Electronics Engineering**

**UG: B.E., EEE**

**ELECTRICAL MACHINES LABORATORY**

## Department Laboratories

### Electrical Machines Lab

#### **Courses:**

DC Machines & Transformer Lab  
Synchronous & Induction Machines Lab

**Total cost of the equipments: 18.1 lakhs**

**Area: 350 sq.m**



## LIST OF EQUIPMENTS

| S.NO | Name of the Equipment                      |
|------|--|
| 1    | DC SHUNT MOTOR 5HP,230V,1500rpm,20A        |
| 2    | DC SERIES MOTOR 5HP,230V,1500rpm.20A       |
| 3    | DC COMPOUND MOTOR 5HP,230V,1500rpm.20A     |
| 4    | DC SHUNT GENERATOR WITH DC MOTOR           |
| 5    | DC COMPOUND GENERATOR WITH DC MOTOR        |
| 6    | 3 PHASE ALTERNATOR WITH DC SHUNT MOTOR     |
| 7    | 3 PHASE SLIPRING INDUCTION MOTOR 5 HP      |
| 8    | 3 PHASE SQUIRREL CAGE INDUCTION MOTOR 5 HP |
| 9    | 3 PHASE SYNCHRONOUS MOTOR 5HP              |
| 10   | 1 PHASE INDUCTION MOTOR 1.5 HP             |
| 11   | 1 PHASE TRANSFORMER 2 KVA                  |
| 12   | 3 PHASE TRANSFORMER 5 KVA                  |
| 13   | 1 PHASE AUTO TRANSFORMER 4 A               |
| 14   | 1 PHASE AUTO TRANSFORMER 15A               |
| 15   | 3 PHASE AUTO TRANSFORMER 28A               |
| 16   | 1 PHASE LOADING RHEOSTAT 3KW               |
| 17   | THREE PHASE LOADING RHEOSTAT 5 KW          |
| 18   | TUBULAR RHEOSTAT 50 OHM/4.2A               |
| 19   | TUBULAR RHEOSTAT 200OHM/1.5A               |
| 20   | TUBULAR RHEOSTAT 400 OHM/1.2A              |
| 21   | TUBULAR RHEOSTAT 110 OHM/2.5A              |
| 22   | RECTIFIER                                  |
| 23   | THREE POINT DC STARTER 5 HP                |
| 24   | TWO POINT STARTER 5HP                      |
| 25   | 4 POINT STARTER 5 HP                       |
| 26   | FREQUENCY METER-DIGITAL                    |

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| 27 | PHASE SEQUENCE METER                           |
| 28 | MOVING COIL AMMETER                            |
| 29 | MOVING COIL AMMETER 0-100mA                    |
| 30 | MOVING COIL AMMETER 0-1.5mA                    |
| 31 | MOVING COIL AMMETER 0-5mA                      |
| 32 | MOVING COIL AMMETER 0-10/20mA                  |
| 33 | MOVING COIL AMMETER 0-25mA                     |
| 34 | MOVING COIL VOLTMETER (0-10V)                  |
| 35 | MOVING COIL VOLTMETER (0-30V)                  |
| 36 | MOVING COIL VOLTMETER (0-300V)                 |
| 37 | MOVING IRON AMMETER (0-2.5V)                   |
| 38 | MOVING IRON AMMETER (0-10V)                    |
| 39 | MOVING IRON AMMETER (0-25V)                    |
| 40 | MOVING IRON VOLTMETER (0-150V)                 |
| 41 | MOVING IRON VOLTMETER (0-250V/500V)            |
| 42 | WATTMETER 10A/50V                              |
| 43 | WATTMETER 2.5A/600V                            |
| 44 | WATTMETER 5A/600V                              |
| 45 | WATTMETER 10A/600V                             |
| 46 | KNIFE SWITCH-SPST                              |
| 47 | KNIFE SWITCH-DPST                              |
| 48 | KNIFE SWITCH-TPST                              |
| 49 | KNIFE SWITCH-DPDT                              |
| 50 | TACHNOMETER-ANALOG(0-10,00 RPM)                |
| 51 | TACHNOMETER-DIGITAL(0-10,00 RPM)               |
| 52 | MULTIMETER-ANALOG                              |
| 53 | MULTIMETER-DIGITAL                             |
| 54 | DIGITAL FREQUENCY METER                        |
| 55 | PHASE SEQUENCE INDICATOR                       |
| 56 | DC SHUNT MOTOR COUPLED WITH 3 PHASE ALTERNATOR |
| 57 | ALTERNATOR COUPLED WITH DC SHUNT MOTOR         |
| 58 | DC SHUNT MOTOR COUPLED WITH DC SHUNT GENERATOR |

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| 59 | COMPOUND MOTOR WITH LOADING ARRANGEMENT         |
| 60 | 3 PHASE LOADING INDUCTOR 1-10A                  |
| 61 | WATER LOAD 2KW                                  |
| 62 | TUBE RHEOATAT                                   |
| 63 | TUBE RHEOATAT 20 OHM/2A                         |
| 64 | 4 POINT DC STARTER 7.5HP                        |
| 65 | 4 POINT DC STARTER 5HP                          |
| 66 | 3 POINT DC STARTER 5 HP                         |
| 67 | SYNCHRONOUS INDUCTION MOTOR STARTER 5 HP        |
| 68 | 3 PHASE LOADING CAPACITOR 10A                   |
| 69 | SYNCHRONOUS PANEL                               |
| 70 | WINDING STUDY MOTOR                             |
| 71 | LOADING ARRANGEMENT WITH FRAME/DRUM             |
| 72 | 3 PHASE AUTO TRANSFORMER 15A                    |
| 73 | 1 PHASE AUTO TRANSFORMER 15A                    |
| 74 | TAPPING TRANSFORMER 2KVA                        |
| 75 | 1 PHASE TRANSFORMER 1KVP                        |
| 76 | MOVING COIL AMMETER 0-1A                        |
| 77 | MOVING COIL RECTIFIER AMMETER 0-100mA           |
| 78 | MOVING COIL RECTIFIER AMMETER 0-500mA           |
| 79 | MOVING IRON AMMETER 0-1A                        |
| 80 | MOVING IRON VOLTMETER 0-50V                     |
| 81 | MOVING IRON VOLTMETER 0-30V                     |
| 82 | SCREMLING TOOL                                  |
| 83 | DIGITAL TACHOMETER CONTACT TYPE                 |
| 84 | PANEL MOUNT DIGITAL TACHOMETER WITH ACCESSORIES |
| 85 | STEAD MAKE TUBULAR RHEOSTAT SINGLE TUBE         |
| 86 | DOUBLE ELEMENT WATTMETER                        |
| 87 | SINGLE ELEMENT WATTMETER                        |
| 88 | SINGLE ELEMENT WATTMETER 0-750 WATTS            |
| 89 | POWER FACTOR METER SINGLE ELEMENT               |
| 90 | AIR COLLED TRANSFORMER SINGLE PHASE             |

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| 91  | UPS 20KVA   |
| 92  | 3 PHASE 5 HP SQUIRREL CAGE INDUCTION MOTOR        |
| 93  | KIRLOSKAR 1 PHASE 1HP INDUCTION MOTOR             |
| 94  | PORTABLE DC AMMETER 0-5A                          |
| 95  | UPF WATTMETER (0-600)V 10/20 A                    |
| 96  | UPF WATTMETER (0-600)V 5/10 A                     |
| 97  | UPF WATTMETER (0-600)V 10/20 A                    |
| 98  | UPF WATTMETER (0-600)V 10/20 A                    |
| 99  | 3 PHASE RESISTIVE LOAD 7.5 KW                     |
| 100 | SYSTEM DIGITAL TACHOMETER                         |
| 101 | PORATBLE AC AMMETER 10/20 A                       |
| 102 | PORATBLE AC AMMETER 1/2 A                         |
| 103 | PORATBLE AC AMMETER 15/30 A                       |
| 104 | PORATBLE AC VOLTMETER 300/600V                    |
| 105 | PORATBLE AC VOLTMETER 30/60V                      |
| 106 | PORATBLE DC AMMETER 1/2 A                         |
| 107 | PORATBLE DC AMMETER 15/30 A                       |
| 108 | PORATBLE DC AMMETER 10/20 A                       |
| 109 | PORATBLE DC AMMETER 15/30 mA                      |
| 110 | PORATBLE DC AMMETER 200 mA                        |
| 111 | PORATBLE DC AMMETER 5/10A                         |
| 112 | PORATBLE DC VOLTMETER 30/60 V                     |
| 113 | PORATBLE DC VOLTMETER 0-300V 0-150/300V           |
| 114 | RHEOSTAT 220OHM/1.5A                              |
| 115 | RHEOSTAT 540 OHM/1.1A                             |
| 116 | RHEOSTAT 200 OHM/1.5A                             |
| 117 | RHEOSTAT 50 OHM/4A                                |
| 118 | RHEOSTAT 400 OHM/1.1A                             |
| 119 | SINGLE ELEMENT UPF WATTMETER 150/300/600 V 5/10 A |
| 120 | 5HP 3 PH INDUCTION MOTOR WITH LOADING ARRANGMENT  |
| 121 | 2 HP 1PH INDUCTION MOTOR WITH LOADING ARRANGMENT  |
| 122 | SPST SWITH WITH BOX                               |

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| 123 | TPST SWITCH WITH BOX   |
| 124 | DPST SWITCH WITH BOX   |
| 125 | DC AMMETER 1/2A  |
| 126 | PORTABLE DC AMMETER 10/20A   |
| 127 | PORTABLE DC AMMETER 15/30A   |
| 128 | PORTABLE DC AMMETER 5/10A  |
| 129 | PORTABLE DC VOLTMETER 30/60V   |
| 130 | PORTABLE DC VOLTMETER 300/600V   |
| 131 | PORTABLE AC AMMETER 5/10A  |
| 132 | PORTABLE AC AMMETER 0-5A   |
| 133 | PORTABLE AC AMMETER 15/30A   |
| 134 | PORTABLE AC VOLTMETER 30/60V   |
| 135 | 1PH TRANSFORMER 2KVA   |
| 136 | 1PH TRANSFORMER 1KVA   |
| 137 | 3PH AUTOTRANSFORMER 20A  |
| 138 | 3PH AUTOTRANSFORMER 15A  |
| 139 | 1PH AUTOTRANSFORMER 10A  |
| 140 | PORTABLE UPF WATTMETER   |
| 141 | DOUBLE ELEMENT WATTMETER   |
| 142 | 1PH AUTOTRANSFORMER 2KVA   |
| 143 | 5HP DC SHUNT MOTOR WITH LOADING ARRANGMENT                                       |
| 144 | 5HP DC SHUNT MOTOR COUPLED WITH DC COMPOUND GENERATOR ALONG WITH BED AND STARTER |