### SYLLABUS FOR SKILL DEVELOPMENT TRAINING ON

### **INSTALLATION AND MAINTENANCE OF ELECTRICAL AND ELECTRONICS SYSTEM**

### THEORY, DEMONSTRATION/TUTORIAL

- > SIMPLE UNIT CONVERSION, MENSURATION & I. E RULES
- > CODE OF PRACTICE AND SELECTION OF WIRES & FUSE
- > DRAWINGS, LAYOUT AND SCHEMETIC, WIRING DIAGRAM, SYMBOLS & NOMENCLATURE
- > CONNECTIONS AND DIAGRAMS FOR DISTRIBUTION AND FUSE BOARD
- > CUT OUTS, CEILING ROSES, LAMP HOLDERS SWITCHES (INCLUDING TWO WAY), JOINT BOXES AND WIRING
- > INSTALLATION OF ELECTRIC BELL, INDICATORS & ANNUNCIATORS
- > HOUSE WIRING BY PVC CASING CAPING
- > HOUSE WIRING BY PVC RIGID PIPE
- > CONCEALED PVC PIPE AND CONDUIT WIRING BY M.S. RIGID PIPE
- > CABLE JOINTS AND CABLE CONNECTION WITH SOCKETS
- > ELECTRICAL EARTHING SYSTEMS AND RELATED I. E RULES
- > PROTECTION OF BUILDINGS AND STRUCTURES FROM LIGHTNING
- > STUDY OF SINGLE PHASE RCCB AND SELECTION OF MCB FOR DIFFERENT TYPES OF BOARD
- > ESTIMATING, COSTING OF WIRING INSTALLATION FOR A RESIDENTIAL BUILDING
- > METHOD OF LAYING WIRE OVER SHORT DISTANCES
- > OVERHEAD AND UNDERGROUND LINE (AC) DISTRIBUTION
- > BASIC IDEAS ON POWER STATION AND SUBSTATION
- > ENERGY AUDIT
- > STUDY OF ELECTRONIC COMPONENTS
- > MAKING OF SIMPLE ELECTRONIC CIRCUIT
- > BASICS OF ELEVATOR
- > LAMPS AND CONTROL GEARS (INCLUDING HID LAMPS & LED LAMPS)
- > FUNCTION, APPLICATION AND MAINTENANCE OF BATTERIES
- > SOLAR ELECTRICITY, PV MODULE & CONTROLLER WITH INVERTER
- > FINANCIAL ASSISTANCE FROM BANK

# PRACTICAL:

- > HOUSE WIRING BY PVC CASING CAPING INCLUDING TESTING AND COMMISSIONING
- > HOUSE WIRING BY PVC RIGID PIPE INCLUDING TESTING AND COMMISSIONING
- > INDUSTRIAL WIRING BY MS PIPE INCLUDING TESTING AND COMMISSIONING
- > MEASUREMENT OF EARTH RESISTANCE BY EARTH TESTER
- > COMMON FAULTS IN AC & DC FANS , REGULATORS AND REMEDIES
- > TROUBLE SHOOTING OF OTHER HOUSEHOLD APPLIANCES (INDUCTION HEATER, ELECTRIC KETTLE, MIXER / GRINDER ETC.)
- > MAINTENANCE OF DIFFERENT TYPES OF MOTOR WIRING
- > ELECTRONIC CIRCUIT MAKING (LED DRIVER MAKING)
- > MAINTENANCE OF TL, DIFFERENT CFL, LED LAMPS
- > MAINTENANCE OF STREET LIGHTING AND FLOOD LIGHTING SYSTEM (USING SODIUM VAPOUR, METAL HALIDE AND LED LAMPS)
- > MAINTENANCE OF STORAGE BATTERIES AND CONDITION OF CELLS
- > MAINTENANCE OF ELEVATOR
- > DEMONSTRATION OF SOLAR BASED SYSTEM AND MAINTENANCE TRAINING
- > MAINTENANCE OF EMERGENCY LIGHTING SYSTEM (INCLUDING INVERTER & UPS)
- > WIRING INSTALLATION AND MAINTENANCE OF PUMP MOTOR
- PRECAUTIONS FROM ELECTRIC SHOCK AND METHOD OF SHOCK TREATMENT

# <u>VISIT</u>

- > \_CABLE JOINTING SITE
- > POWER GENERATING STATION
- SUBSTATION
- LAMP FACTORY