

**Transmission & Distribution
Training and Development Institute /Madurai
(Accredited by CEA/New Delhi)**



- ❖ **Transmission and Distribution Training and Development Institute was established in 1978**
- ❖ **Transmission and Distribution Training and Development Institute is situated at the office campus of the Chief Engineer / Madurai Distribution Region in Madurai , the Temple city of the state**
- ❖ **Training is imparted to**
 - **Executive and Non Executive Staff of TANGEDCO and TANTRANSCO**
 - **Other state Electrical utility officers**
 - **Engineering College faculties**
 - **State Government officials**
 - **High Tension consumers of TANGEDCO**
 - **Engineering college students**

❖ **Infrastructures :**



AC Lecture Hall I



AC Lecture Hall II

- **Two AC Lecture halls are available**

- Computer room is equipped with 2 Nos.computer systems with accessories ,laptop,scanner,printer,fax machine and Broad band connectivity
- ❖ Technical Books, magazines are available in the library
- ❖ Simulation Models are available in the lab

Sl.No.	Description
01.	Pumped storage Hydel Generation model
02.	Capacitor KVAR rating Testing kit
03.	Power factor improvement model (using tube light)
04.	Energy conservation use of ordinary choke/electronic choke model
05.	Generation of A/c voltage and wave form
06.	Water conductivity testing model
07.	Self induction using magnet and Galvanometer
08.	Observing display in static meter for various system fault
09	Neutral Shifting Model
10.	Generation of Electricity – by movement of magnet in a Solenoid coil – and production of magnetic field
11.	Pressure Relief Valve
12.	Improper Earthing in Domestic Appliances and Distribution Transformer
13.	Model to show effects of Voltages and Currents in series and Parallel Circuit
14	Earth leakage circuit breaker
15	Earth leakage in Electrical appliances and equipments
16.	Simulation of trip, close, trip circuit healthiness of circuit breaker and tripping through relay
17.	Co-ordination of relay for primary protection and back-up protection.
18.	Parallel operation of Transformers
19.	SF6 circuit breaker simulation
20.	Power Transformer alarm and protection
21	Distribution Transformer Testing
22	Current Transformer testing
23	Breather
24	AB Switch contacts
25	Oil and winding Thermometer , MOG
26	Auxillary contacts of 230 KV Breaker
27	Different types of stay
28	Battery leakage and stability test
29	DC Control – Anunciation
30	Vacuum interrupter

❖ **Personnel trained so far - (From 1978 to 10/2011) -- 33301 Nos.**

❖ **Sanctioned Training programme details**

- **Workshop on Operating Instructions and maintenance of 230 / 400Kv grid substations (One Day Onsite Training)**
- **Workshop on Spares Management of – MV Breakers with Manufacturers (one day Onsite Training) (at chennai)**
- **Workshop on Condition monitoring and diagnostic testing of SS equipments (One Day Onsite Training)**
- **Workshop on Pollution control and Surge protection (at chennai)**
- **Workshop on Hotline maintenance (One Day Onsite Training)(at chennai)**
- **Workshop on Operating instructions and maintenance of 110 Kv Radial substations (One Day Onsite Training) (at Trichy,Tirunelveli)**
- **Workshop on Operation and load management of 230 KV SS (One Day Onsite Training)(at Trichy & Tirunelveli)**
- **Workshop on Tools and Plants in substation and Erection Practices for Engineers and staff**
- **Workshop on Trouble shooting of 230 / 400Kv SS – Breakers of different make (Onsite Training) (at chennai)**
- **Workshop on Trouble shooting of 230 / 400Kv SS – Transformers of different make (Onsite Training) (at chennai)**
- **Workshop on Scheme,symbols,wiring,tracing of fault location &testing in control circuits**
- **Workshop on Operation and Maintenance of Capacitor banks**
- **On site training programme on OLTC (at chennai)**
- **Workshop on Substation Erection for Engineers**
- **Workshop on Transformer erection for Engineers**
- **Workshop on Safety,Accident Prevention and reporting etc., for Engineers**
- **Workshop on Insulation Testing of power system equipments (at chennai)**
- **Workshop on Isolators 230/110 KV SS(one day on site Training)(at chennai)**
- **Workshop on System Study Techniques (at chennai)**
- **Workshop on Power System Communication, optic fibre techniques (at Chennai)**
- **Workshop on R&D Activites (at chennai)**
- **Workshop on Improvement of Distribution system efficiency and reducing ATC losses (at regional H/Q)**
- **Workshop on Theft of energy (at coimbatore,chennai,Tirunelveli and**

Trichy)

- Workshop on Safety and accident prevention (at regional H/Q)
- Workshop on Metering and Billing -case studies (at regional H/Q)
- Workshop on Distribution System Equipments & lines and failure analysis & mitigation measures
- Workshop on Energy audit & accounting (at regional H/Q)
- Workshop on Distribution materials management(at Madurai)
- Workshop on failure analysis & mitigation measures in Ringmain Units(Metro) (at Chennai)
- Contact Training Programme with Manufactures On “Trouble shooting of Battery” and VRLA (at Madurai)
- Onsite Training Programme on Instrument Transformers (at chennai)
- Planning for Post Retirement life
- National level training programme under DRUM project

❖ Faculty Details in Brief :

- Faculties of our Training Institute
- Guest Faculties from TANGEDCO & TANTRANSCO

❖ Achievements and special activities :

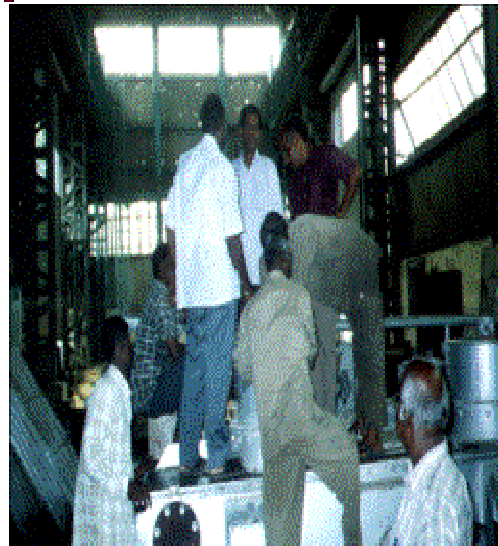
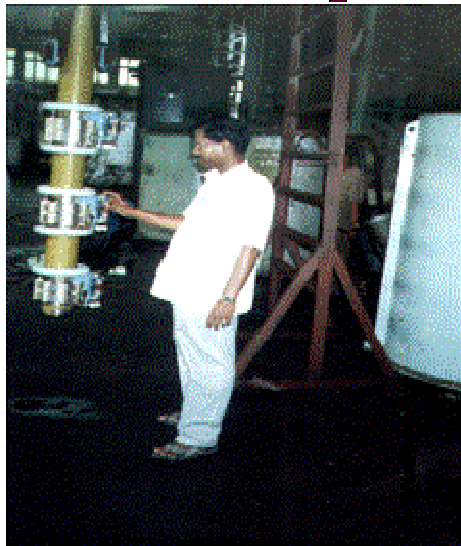
- One of the Faculty Member ,Er.R.PanneerSelvam (TheDeputy Director/ Training /Madurai) has got National Level Best Trainer Award from Govt.of India during the year 2003-2004
- Training Methodology and expertise resulted in an invitation from Andaman & Nicobar Admininstration for training their Employees on Distribution Practices



**Our General Manager / HRD
Inaugurating the Training on
Safety Measures in T and D at Port Blair**

- On site Training programme on MV Breakers , EHV Breakers, OLTC , Batteries , Isolators , Instrument Transformers, Grid SS Relays, Radial SS Relay, Power Transformer ,metering in Distribution

Onsite Training programme -Transformer Repair Bay and OLTC



❖ Revenue Generation Training Programmes

Our training Institutes / centers started earning revenue from the year 2007-2008 by conducting program on profitable basis

- Practical Training to Lecturers / Professors of Various Engineering Colleges on “Training on Testing and Commissioning of SS Equipments” to enrich the practical knowledge of Engineering college students
- Training to Murugappa Group Staff/Chennai - Imparted training on “Energy Conservation and Electrical Safety” for the Staff members of M/s.Murugappa Group of Companies/Chennai under chargeable basis.
- Training M/s Thermax - Training programme to engineers and staff members of M/s Thermax Limited (based on their request) on the topic “Power system operation” during September 2010.
- Training to HT Industry Engineers -Imparted training to the Engineers and Managers of High Tension industries on “Energy Conservation in HT Industry” under chargeable basis.
- Training to Defence Personnel -10 days training programme was conducted for 30Nos. Electrical Personnel working in “Heavy Alloy Penetrate Project” (HAPP)/Ordnance Factory Board,Tiruchirappalli on Operation and Maintenance of Substation Equipments” with the assistance of TT&DC/Trichy.
- REC Training Programme - National Training Program for Class C & D Employees Variant III (Adm & Accts staff) in TNEB on Financial Management , Stores Accounting & office administration
- REC Training Programme - National Training Program for Class C & D Employees Variant II (Card Billing staff) in TNEB On Energy Meter Reading ,Billing & collection
- PFC funded training programme - Training Programme On " Disaster Management , Electrical Safety Procedures and Accident prevention " , "Operation and Maintenance " , " Communication and Customer Relation" , " Best Practices in Distribution Operation and Mangement Systems"
- National Franchisee Training Programme to final year Engineering college students

National level Training programme :

DRUM Project Training

- **Best practices in Distribution systems O&M**
- **Distribution Efficiency & DSM**
- **Electrical Safety Procedures, Accident Prevention and Disaster Management**
- **Best practices on Agricultural pumpsets (Rural DSM)**

Energy Conservation Activities

Seminar on "Energy Conservation & Electrical Safety" is conducted to Public, school and Engineering college students

36602 personnel were trained on Energy Conservation & Electrical Safety
This Programme mainly focuses on

- **Creating awareness among the consumers and Students of Schools and Colleges**
- **About the Do's and Don'ts in Electrical system to reduce Non fatal Electrical Accidents**
- **Methods of Conserving energy in Industrial, Agricultural and Domestic / Commercial Sectors**
- **Effect of usage of capacitors in Improving Power factor and Supply quality.**
- **Concepts are explained through Demos on models and Video shows**

Participation in the Energy Conservation Exhibition

Received Best Stall Award



Future Plan :

- One day workshop on " **Techno commercial aspects of HT Billing in TANGEDCO**" is proposed to be conducted for HT industrial consumers **on chargeable basis** to explain the details of HT billing, purchase and adjustments and to have better relationship with our organisation.
- Three **days** workshop for " **Faculties of Engineering college** " at their college premises **on chargeable basis**
- One Day seminar on **Distributin Transformer** for averting failure of Distribution Transformers
- Exhibition on Spares of Electrical Equipments to acquire indepth knowledge of Equipments