

Training Programme on

UNDERGROUND CABLES – DESIGN, SELECTION, LAYING, MONITORING & FAULT DETECTION

28th - 31st August, 2018



आर ई सी
REC

असीमित ऊर्जा, अनन्त संभावनाएं
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REC INSTITUTE OF POWER MANAGEMENT & TRAINING
(Formerly known as Central Institute for Rural Electrification)

INTRODUCTION

The components of power system should be designed and executed to meet the expectations of any consumer in respect of quality and reliability of supply. Frequent tripping and breakdowns not only cause loss of revenue but also create consumer dissatisfaction and tarnish the image of the utility. The overhead systems widely built are prone to create frequent interruptions due to natural and man-made disasters causing safety hazards. Further, considering the need to build Smart Cities as envisaged by the Govt. of India, the existing overhead system needs to be replaced with underground cable systems to improve the aesthetics of the modern cities besides improving the quality and reliability of supply. Underground cable system has inherent property to provide better voltage profile.

Underground Cable systems are costly as compared to overhead networks and require special skills in the design, selection, laying, jointing and termination. A well laid underground cable system can give trouble free service for a long time, provided it is properly selected, sized suitable to the applications. So, it is necessary to have a thorough knowledge of the material technology of cables and their properties to select a suitable cable for a given application. Route planning of cables with route and joint markers would provide ease of maintenance in the event of a fault. Proper selection of the back fills is necessary to ensure better heat dissipation and ensure lower limits of operating temperature which prolongs the life of the cable, besides enhancing its loading capability. The cable system once laid, it will be difficult to remove and repair or replace. Hence, it is essential to carry out all the tests at the time of procurement as well as commissioning.

Considering all the criticalities, RECIPMT designed a 4-day programme on “**Underground Cables – Design, Selection, Laying, Monitoring & Fault Detection**” from 28th to 31st August 2018 for the Engineers working in the Power Utilities.

PROGRAMME OBJECTIVES

- To provide required skill in designing, selection, laying, jointing and termination of underground cables to the Filed Engineers working in the Power Utilities.
- To upgrade the knowledge in monitoring of the underground cables and in identifying the cable faults and fault locations.

PROGRAMME CONTENTS

The programme will cover the following broad areas:

- Types of Cables
- Modern Trends in Manufacture of Cables
- Sizing, Selection & Standards of Cables
- Primary Survey, Detailed Survey & Laying of Cable
- Back filling the Cable trenches – Properties of Back fills
- Cable Jointing & Termination
- Earthing of Underground Cables
- Factory testing of Cables
- Cable Faults and Fault Location Methodology
- Modern trends in Monitoring & Testing of Cables

PEDAGOGY

The programme will be conducted in an interactive environment providing greater scope for discussions. Eminent Engineers, professionals, consultants and experts from different organizations shall be involved as resource persons on different topics of their specialization. The pedagogy includes lectures, discussions, exercises, case studies, etc.

TARGET GROUPS

Junior/Middle level Engineers, heads of divisions/functions in the areas of Operations & Maintenance, Construction, Project Implementation areas from Public and Private Sector Power Utilities, Regulatory Commissions and Electricity/Power Departments will benefit from the programme.

PROGRAMME DATE, TIMINGS & VENUE

28th to 31st August 2018 from 9.45 am to 5.15 pm with break for lunch, tea and refreshment. The venue will be RECIPMT Campus, Aramgarh X Road, NPA Post, Hyderabad-500 052.

PROGRAMME FEE

Category	Course Fee per participant	GST (18%)	Total Course Fee/Participant without Group Discount	Group Discount of 10% for 3 or more Participation from same utility ***
Residential*	₹ 22,000	₹ 3,960	₹ 25,960	10%
Non Residential**	₹ 18,000	₹ 3,240	₹ 21,240	10%

* Includes Boarding and Accommodation in addition to tuition, courseware & other facilities, Field Visit, etc.

** Excludes Accommodation, Includes only Working Lunch, Class room Tea & Snacks.

*** Only on Participation basis

The Accommodation is provided on Double Occupancy Basis

Note: No Pick-up or Drop facility will be provided and participants have to make their own arrangements to reach RECIPMT Campus.

Course Fee shall be paid in the form of a demand draft/cheque in favor of “**REC Institute of Power Management & Training**” payable at Hyderabad in advance or at least at the time of registration. The course fee may also be paid by NEFT/RTGS transfer to **HDFC Bank Account No: 00210350000930, IFSC Code: HDFC0000021**. GSTIN of RECIPMT: **36AAACR4512R3Z0**.

HOW TO REGISTER

Please send the nominations on or before **24th August, 2018** along with DD/ Cheque / NEFT transfer to: **The Additional Director, REC Institute of Power Management & Training**, NPA Post, Shivarampally, Hyderabad-500052. Fax: 040-29805896, E-mail: recipmt@gmail.com. Please contact Dr. R. Mohd. Nafi, in his Mobile 09441296670 for further information. Participants are advised to commence their journey, after receiving the confirmation from RECIPMT.

CERTIFICATE OF PARTICIPATION

On the completion of the programme, participants will receive a Certificate of Participation.

ABOUT REC

Since its inception in 1969, Rural Electrification Corporation (REC), a Navaratna PSU, has been playing a significant role in financing and promoting electrification projects across India. In a span of 49 years, REC has emerged as India's leading finance company in power sector, be it generation, transmission, distribution or renewable energy, REC has always created benchmarks in its every performance. Based on the MOU with Ministry of Power, the performance of REC is rated as "Excellent" consistently for the last 24 years.

ABOUT RECIPMT

REC Institute of Power Management & Training (RECIPMT) earlier known as Central Institute for Rural Electrification was established at Hyderabad in 1979 under the aegis of Rural Electrification Corporation Limited to cater to the training and development needs of Engineers and Managers of Power and Energy Sector. RECIPMT is relentlessly engaged in capacity building to strengthen the human resources development initiatives of Power Sector. RECIPMT has been conferred with Education Leadership Award by reputed Business School and ABP News National Educational Award for 3 years in recognition of Leadership, Development, Innovation and Industry interface. The Institute is spread over an area of about 14 acres, with administrative, teaching and hostel blocks. Class rooms and hostel rooms are air-conditioned. An Energy Park has been set up to develop awareness on Renewable Energy Sources System and High Voltage Distribution System.

Upto March 2018, the Institute has organized 1972 training programmes and 43352 Engineers/ Managers from various Power Utilities, like Generation, Transmission & Distribution Companies, Electricity Departments, Rural Electric Cooperatives, Regulatory Commissions, Rural Development Agencies, Banks, CPUs, etc., participated in the programmes. The Institute has organized 87 International Training Programmes under ITEC/SCAAP of Ministry of External Affairs, GOI and trained 1389 executives from 86 countries.



Programme Coordinators:

P. Narender Kumar

Dr. R. Mohd. Nafi



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Aramgarh X Road, Shivarampally, NPA Post, Hyderabad 500 052

Office Phones: 040-29805901, 29808583, 29805897

Fax: 040-2980-5896, E-mail: recipmt@gmail.com, recipmt@recl.in

Website: www.recipmt.com & www.recindia.com

Regd. Office: Core-4, SCOPE Complex, 7 Lodi Road, New Delhi 110 003

CIN:L40101DL1969G01005095

