## Online Training Program on

# SELECTION OF FINAL DISTRIBUTION PRODUCTS





#### **KEY TAKEAWAYS**

- Selection and application of MCBs, RCCBs and RCBOs
- MCBs Working principle, applications and curves
- RCCB Working principle, applications and Sensitivities
- RCBO Overview, Demonstration & its tripping
- Types and selection of Distribution Boards

#### In association with





#### **CONTACT US**



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#### **ABOUT ORGANISERS**

Central Board of Irrigation & Power (CBIP) a premier Institution, setup by Government of India in 1927 has been serving the nation in the disciplines of Water Resources, Power & Renewable Energy Sectors for more than 93 years. It is an exchange and knowledge bank for dissemination of technical knowledge & professional experience to help Engineers/ Professionals to update their knowledge and gain practical know-how.

CBIP's main objective is to disseminate technical knowledge through various modes, e.g., publication of technical documents, organizing conferences /workshops and to provide specialized training to the professionals in the Water Resources, Power & Renewable Energy Sectors.

L&T Electrical & Automation (E&A) is a market leader for electrical distribution, monitoring and control solutions in the low voltage category. E&A offers a wide range of its brand L&T Switchgear comprising low and components, medium voltage electrical systems. industrial automation, building electrical solutions, energy management solutions, solar energy solutions, electrical modernization solutions and metering solutions.

L&T Switchgear Training Centre (STC) was set up with the objective of enhancing knowledge and necessary skill sets of personnel for proper maintenance and efficient working of electrical equipment and systems for industry wide improvements in productivity and higher profitability. STCs promote good electrical engineering practices and provide an excellent platform for discussions and learning on technical issues.

International Conference on Electricity Distribution (CIRED) is an international association set up in Belgium. CIRED works for the purpose of increasing the business relevant competencies and skills and knowledge of professionals of countries participating in CIRED's activities.

CIRED is active in the technical field of Electricity Distribution Systems, including dispersed and embedded generation issues.

#### **OBJECTIVE**

In view of the current scenario and with the better aim to discuss and give а understanding to the professionals and engineers about Distribution Products, CBIP jointly with L&T Electrical & Automation is organizing online training program "SELECTION OF FINAL DISTRIBUTION **PRODUCTS**" on 27<sup>th</sup>-28<sup>th</sup> Mav. 2021 (1500-1630hrs).

# UNIQUE FEATURES OF ONLINE PRACTICAL TRAININGS

- Virtual Instructor led Training Program
- Training with high safety of participants w.r.t. COVID19
- No travel related costs
- Learning and working balance as our sessions are planned for half day
- Flexibility to join via android/iOS mobile phones
- Well proven online platform with high cyber security
- Live message chat, Live voice chat, polls and Quiz
- Real time engagement
- Experts Panel discussions with Case studies
- Working Group Discussion within participants
- Demonstration of practical aspects through videos
- E-Certificates

#### WHO SHOULD ATTEND?

The training program is open to the Executives & Senior management of various utilities and individuals such as Panel Builders, OEMs, End users: Projects, O&M team, consultants and other experts in the field of power system.



#### Note:

- Audio/video recording is prohibited; however the presentations will be shared with participants via e-mail.
- Organizers will not be responsible for any quality and interruption of audio/video due to poor internet connectivity at the customer end.
- Online training session link will be provided to the participants only.
   Forwarding the link to other person is strictly prohibited.
- The participants must adhere to the time schedule fixed for the training.

#### **REGISTRATION FEE**

The duration for the training program will be of 90 minutes each day (1500-1630 hours) which will be followed by Q&A session.

The participation fee for full 2 days shall be:-

Number of Participants	*Member Fee per nomination	*Non-member Fee per nomination
1 or more	Rs.3,000	Rs.3,600
5 or more	Rs.2,800	Rs.3,200
10 or more	Rs.2,400	Rs.2,800
15 or more	Rs.2,000	Rs.2,400
Ph.D Scholars or M.Tech Students(max age=35 years)		Rs.1,000

\*18% GST will be charged extra. (GST No. 07AAAJC0237F1ZU)

#### TO REGISTER:

The perspective participants, desirous of attending the training program may register themselves by sending the following details to CBIP along with necessary payments:

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Name:	
Designation:	
Organization & GST Number	
Mailing address:	46 44
Mobile No.:	
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Payments of registration fee should be made by cheque at par/Demand Draft drawn in favour of "Central Board of Irrigation and Power", payable at New Delhi or by transfer the amount to HDFC Bank.

Address: 209-214, Kailash Building, 26 Kasturba Gandhi Marg, New Delhi 110001, Saving Bank Acc. No: 00031110004411; Swift Code: HDFCINBBDEL;

IFSC:HDFC0000003; MICR Code:110240001

#### **HOW TO JOIN**

The program is limited to 200 participants & it shall be conducted in Microsoft Teams.

After registration, the participants will be provided the link 1 day prior to the session to participate on their registered e-mail ids. The link shall be open for joining on 1430 hours on 27<sup>th</sup> May, 2021.

#### For joining through laptop:-

- Step-1:- Click on the link provided.

  (Your internet browser will open along with 3 options)
- Step-2:- Click on the option "Continue on this browser"

  (The Microsoft Teams window will open on the browser with a field to write the name)
- **Step-3:-** Enter the name of organization and yourself and click on "<u>Join Now</u>" (example: CBIP-Shashank)

#### For joining through mobile/smartphone:-

- Step-1:- First Download the MicroSoft Teams
  App from play store/ app store on
  your phone
- Step-2:- Click on the link provided.

  (Microsoft Teams app will open along with 2 options)
- Step-3:- Click on the option "Join meeting"

  (A window to enter the name will open on the browser)
- **Step-4:-**Enter the name of organization and yourself and click on "**Join meeting**" (example: CBIP-Shashank)

\*\*Only the registered participants shall be allowed to attend the program\*\*

### ADDRESS FOR CORRESPONDENCE

Shri A.K. Dinkar, Secretary, CBIP Shri A.K. Bhatnagar, Director, CBIP

Nodal Officer: Shri Shashank Sharma, Assistant Manager, 9650782428

E-mail:- <a href="mailto:shashank@cbip.org">shashank@cbip.org</a>, cbip@cbip.org; shashank271993@gmail.com;

Central Board of Irrigation & Power

Malcha Marg, Chanakyapuri,

New Delhi - 110021, Phone: 011 26115984

#### **FACULTY PROFILE**



Mr. Vivek Ratnam is currently heading L&T Switchgear Training Centre, Kolkata and is designated as Deputy General Manager, Training at L&T Electrical & Automation.

#### **Educational Qualification:**

- B.E Electricals & Electronics 2008 from BITS, Bhopal
- MBA in Marketing 2017 from Sikkim Manipal University, Manipal.

He holds enriching 12+ years of experience in the field of LV Switchgear. He has collective experience in Technical Training/ Marketing/ Product Life Cycle Management / Design & Development /Value Engineering. For the initial six years he has worked in R&D of LV Switchgear involved in development of Control gear & Power gear products like Contactors, Relay, Starters, MCB, RCBO, MCCB etc. Innovation by way of having filed 3 patents in the area of electrical engineering and various design registrations.

He possesses extensive knowledge of Product Life Cycle Management, DOE, DFMEA, 3D Modeling in Pro-E with detailed drawings, Prototype Development, Testing as per IEC & IS and Field Complaint Analysis.

Electrical Load Calculation, Fault Level Calculation, Voltage Drop Calculations, Selection of Electrical Equipment (LT Switchgear, Design of LV Switchboards, APFC), Busbar & Cable Sizing & has detailed knowledge of Standards-IEC 60947 (LV Switchgear) & IEC61439 (LV Switchboard).

He has conducted various Training Programs based on

- > Selection & Applications of LV Switchgear,
- ➤ Power Quality Solutions,
- > Switchgear Maintenance & Terminations,
- ➤ Electrical Design of Switchgear Assembly

His versatile experience, zeal of continuous learning & keen interest in sharing knowledge keeps him abreast with the latest technological advancements as well as on the epitome of knowledge.

#### **AGENDA**

The detailed schedule for the 2 day online session is as follows:-

#### DAY-1 27<sup>th</sup> May, 2021 (1500 -1630 hours)

- Selection of MCB, Significance of Magnetic Tripping Curves & their Application areas,
- ↓ Advantages of using MCB, Demonstration of MCB & Its tripping on overcurrent.
- Isolator Overview of Isolator, Its Applications & Advantage, Difference between MCB & Isolator

#### DAY-2 28<sup>th</sup> May, 2021 (1500 -1630 hours)

- ♣ RCCB − What is Shock, its importance, Overview & of RCCB, Its Principle of Operation & Selection, Different Sensitivity & their Application areas.
- Demonstration of RCCB & its tripping on Earth Leakage fault.
- ♣ RCBO Overview of RCBO, Difference between RCCB & RCBO, Demonstration of RCBO & its tripping on Overcurrent & Earth Leakage fault.
- DBs Different types of DBs and advantages

