

TRAINING CALENDAR

2023-24



Central Board of Irrigation & Power

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MESSAGE FROM SECRETARY



Central Board of Irrigation & Power (CBIP) is a 96 years old premier institution and a knowledge bank involved in the dissemination of technical knowledge & professional experiences to help the Indian Engineers/Professionals for dissemination of technical knowledge in Water Resources, Power, Renewable Energy, and allied sectors in the country to update their knowledge and gain practical know-how. It has served these sectors with great distinction and has attained glorious heights in the past 96 years with the guidance of its Executive Board and excellent support of Member Organizations.

The present environment requires continuous up-gradation of capabilities at the individual & organizational levels to remain competitive. The professionals need to redefine their skills & mindset which is important to keep pace with the technological advancement globally. Moreover, it is imperative for the technical professionals to keep on learning for which the training inputs are required by them at every stage of their career viz. induction training to groom them efficiently and later on through refresher training programs to tackle the day-to-day problems in the management of Water, Power, Renewable Energy, and allied sectors. CBIP has always been striving to provide the best of its services in the capacity building/HR development programs to contribute to the development of these crucial sectors of Water, Power, Renewable Energy, and allied sectors. It is playing an important role to provide opportunities to the professionals for getting an environment where they can always upgrade and enhance their knowledge/skills through well-organized conferences and training programs.

Realizing the constraints being faced by the professionals in leaving their stations/headquarters for attending various training programs organized by CBIP at New Delhi and other places, CBIP has also taken the initiative to provide Door Step/Onsite training with the aim to provide training and develop skills of various professionals of the Organizations dealing in Water, Power, Renewable Energy, and allied sector.

CBIP has so far organized over 1800 Seminars, Conferences, Workshops, and Training Courses, both at National and International levels, in Water, Power, Renewable Energy, and allied Sectors, attended by over three lakh delegates. CBIP has also brought out 1635 Journals and 1510 valuable Manuals, Technical Reports, Guidelines which are the outcome of the excellent and valuable contribution by Sr. Experts based on their practical experience.

In its earnest effort, CBIP has conceptualized conferences and training programs to be organized during the year 2023-24, the details of which are given in this training calendar. The topics of conferences/ training programs have been identified keeping in view the problems being faced by the various departments/ organizations for accelerated development of these sectors. In addition to the listed programs, CBIP also conducts tailor-made training programs as per the requirements of various organizations.

We would further like to bring out that CBIP has been providing a common platform through various conferences/seminars etc. for the exchange of technical knowledge and has also been paving way for introducing the latest/state-of-art technologies which have helped various organizations in their accelerated development.

We request all the organizations to take full advantage of the conferences and training programs which we are planning to organize during 2023-24 by deputing their professionals including young professionals and women engineers for participating in these programs. We are sure that the technical knowledge of the professionals participating in these programs will go a long way in benefitting the organization in general and participants in particular.

A.K. Dinkar
Secretary, CBIP



CONFERENCES, TUTORIALS AND TRAINING PROGRAMS

2023-24

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**Put your Time, Efforts & Money in Training & Skill Development
for Development of Sector & Nation**

CBIP OFFICES

Past



*CBIP office, at Curzon Road, New Delhi
(1952-1980)*

Present



*CBIP office
at Chanakyapuri, New Delhi
(1980 onwards)*



*CBIP Centre of Excellence
at Gurgaon
(2013 onwards)
Sector 32, Plot No. 21*



*CBIP Centre of Excellence
at Gurgaon
(2020 onwards)
Sector 32, Plot No. 09*

INFRASTRUCTURE FACILITIES AT CBIP

At Malcha Marg, New Delhi (Head Office)

- Conference Hall
- Training Hall
- Board Room

At CoE, Gurugram

- 4 state-of-the-art Class Rooms
- Library, with digitized version of books and journals
- Various Laboratories like Electrical Lab, Mechanical Lab and C&I Lab, having various associated tools including safety equipments, testing equipments, working models etc.
- Computer lab connected through LAN with wi-fi facilities

CBIP PROFILE



Mr. D.G. Harris, C.I.E. (Government of India), President; Mr. C.S.C. Harrison, C.I.E. (Sukkur Barrage and Canals); Mr. R.P. Hadow, C.I.E., (Punjab); and others members during First Meeting of the Board 1930-31



The then Prime Minister of India, Late Pandit Jawahar Lal Nehru arriving to inaugurate the Silver Jubilee Session of the CBIP in 1952



Hon'ble President of India Dr. Rajendra Prasad inaugurated the 30th (1959) Annual Session of the Board held at Vigyan Bhavan, New Delhi from 23rd - 24th November, 1959.



Late Dr. S. Radhakrishnan, the then President of India, arriving on the occasion of 6th Congress on Irrigation and Drainage in 1966



Her Excellency the President of India, Smt. Pratibha Devi Singh Patil addressed the participants through recorded video during World Tunnel Congress organised by CBIP on 21-24 September 2008, Agra

GENESIS AND GROWTH

- Central Board of Irrigation and Power (CBIP), a premier institution was constituted by Govt. of India in 1927.
- CBIP, is serving the Nation in the disciplines of Water Resources, Power and Renewable Energy Sectors for more than 94 years.
- It is an exchange and knowledge bank for dissemination of technical knowledge & professional excellence to help the engineers/ professionals to update their knowledge and gain practical know-how.
- Silver Jubilee, Golden Jubilee and Diamond Jubilee celebrations of the Board were graced by the then Prime Minister of India, Pt. Jawaharlal Nehru (in 1952), Acting President Shri B.D. Jatti (in 1977) and the then Prime Minister Shri Rajiv Gandhi (in 1987), respectively.

MAIN OBJECTIVES

- Dissemination of technical knowledge by CBIP through various modes, such as :
- Organizing National and International Conferences, Symposiums, Seminars and Workshops etc.
- Publication of technical documents e.g., manuals, technical reports, guidelines and journals etc.
- To impart training to the engineers/professionals.
- To provide research and professional excellence.
- Recognition of technical excellence through annual awards
- To provide information about technological developments and to provide online information to the professionals.
- To provide linkages to Indian Professionals with their counterparts in other countries
- Collection, compilation & analysis of technical data at national as well as global level

ORGANISATION OF THE BOARD

- The affairs of the Board are administered, directed and controlled by an Executive Committee consisting of President, three Vice Presidents (Water Resources, Power & Renewable Energy) and one representative from each member organization.
- The Executive Committee presently comprises of more than 260 members.
- The General Body presently comprises of more than 3000 members of the level of Chief Engineers/equivalent & above
- All Water Resources Departments, State Utilities, PSUs, CPSUs, Regulatory Commissions and major Pvt Sectors Organisations from Water Resources/Power/Renewable Energy are the members of CBIP
- More than 300 retired professionals are also enrolled as life members of CBIP.
- Member organizations make annual contributions to CBIP for providing technical services to them.

BOARD'S ASSOCIATION WITH INTERNATIONAL AND NATIONAL ORGANIZATIONS

Power Sector

- International Council on Large Electric System (CIGRE), India has got seat in Steering Committee, the top decision making body of CIGRE. India also got chairmanship for CIGRE - Asia Oceania Regional Council from 2018-20.
- International Council for Electricity Distribution (CIRED)
- International Hydropower Association (IHA)
- International Association on Electricity Generation, Transmission & Distribution (AARO)
- Society of Power Engineers (SPE)

Water Resources Sector

- International Commission on Large Dams (ICOLD), Shri D.K. Sharma, President, Indian National Committee on Large Dams (INCOLD) has been elected as Vice President, International Commission of Large Dams (ICOLD).
- International Tunnelling & Underground Space Association of India (ITA)
- International Society for Rock Mechanics and Rock Engineering (ISRM)
- International Geosynthetics Society (IGS)
- World Water Council (WWC)
- International Water Resources Association (IWRA)



Renewable Energy

- International Association for Small Hydro (IASH)

ACTIVITIES / SERVICES

Conferences

- Held more than 2000 Conferences in Water Resources, Power and Renewable Energy Sectors attended by more than 3,00,000 delegates.

Publication of Technical Documents

- Brought out more than 5000 publications, including Manuals, Technical Reports, Guidelines and Journals.
- Providing free access of CBIP Publications to more than 35,000 officers of Member organizations including Government departments, PSU's, Central & State Power utilities, Engineering Colleges, Research Institutes and Leading Private Sector Organizations etc.

Training Activities

- CBIP has imparted trainings for more than 1,50,000 mandays to various professionals in the country
- Considering massive requirement of trained manpower in India, CBIP has established a Centre of Excellence at Gurugram (Haryana), in the year 2013, for imparting long/short term training.
- CBIP has been recognized by Ministry of Power, Government of India, as Category-1 institute for providing training for skill upgrade in the field of Hydro, Thermal, Transmission & Distribution and Power Management, Renewable Energy, including Solar Power Development.
- To fulfill the objective of Government of India for imparting skill development courses, CBIP has been recognized as a Training Provider by NSDC, PSSC, SCGJ.
- CBIP provides Post Graduate Diploma in Transmission and Distribution in Engineering and Post Graduate Diploma in Thermal Engineering to B. Tech. Engineers.
- CBIP has recently undertaken construction of another building at Gurgaon as part of extension of its Centre of Excellence, in Gurgaon (Haryana).

Research and Development

- CBIP had been coordinating and monitoring R&D activities, assisting in specific case studies/problems, documentation and dissemination of the results/findings of Research Projects to the practising engineers under the Research Scheme on Power (RSOP), Research Scheme on River Valley Projects (RSRVP), Research Scheme on Flood Control (RSFC) and Research Scheme on Placticulture Development (RSPD). Funds for Research Schemes under RSRVP and RSFC were provided by Ministry of Water Resources and for RSOP by Ministry of Power.
- CBIP is still carrying out research on various important topics and it has also been recognised by the Department of Science and Technology as Scientific and Industrial Research Organisation (SIRO).

DOORSTEP TRAINING

- CBIP has taken initiative to provide Door Step/Onsite training with the aim to provide training and develop skills of various professionals of the Organizations dealing in Water Resources, Power as well as Renewable Sectors. This include Centre, State, PSUs and leading Private organisations.
- Recently CBIP has conducted more than 200 doorstep training programmes at the project sites and Headquarters of various organisations. This is in great demand by Member Organisations.

HANDS ON TRAINING

- CBIP, realizing the importance of competency development and with the aim to create large reservoir of highly qualified manpower in all fields related to engineering, technology & technology management, has started providing hands on training to the professionals for skill development. Jointly with ABB India Ltd.

CONSULTANCY SERVICES

- CBIP undertakes consultancy jobs in various areas related to Power, Water Resources and Renewable Energy Sectors.
 - Manpower Planning; Preparation of O&M Manuals; Recruitment of Technical and Non-technical staff on turnkey basis.
 - Maintenance Audit of Hydro Stations and Sub-stations



Shri Narendra Modi, Hon'ble Chief Minister of Gujarat, inaugurated Swarnim Seminar on "Water for Inclusive Growth" on 22nd March, 2011, organised by Sardar Sarovar Narmada Nigam Limited, in association with CBIP at Gujarat



Dr. Manmohan Singh, Hon'ble Prime Minister of India, inaugurated the first International Event in series of India Water Week, on 10th-14 April, 2012, New Delhi



Shri Gajendra Singh Shekhawat, Hon'ble Minister, Ministry of Jal Shakti, Government of India, Lighting the lamp during inaugural session during ICOLD Symposium on 24-27 February 2021, New Delhi



Shri Bhagwanth Khuba, Hon'ble Minister of State for New and Renewable Energy, Chemicals and Fertilizer; Gol, inaugurating the International Conference on Hydrogen Energy on 24th November 2021, New Delhi



Shri Raj Kumar Singh, Hon'ble Minister of Power and New & Renewable Energy, Government of India; with the invitees during CBIP Day Celebrations on 3rd March 2023, New Delhi



CONFERENCES, TUTORIALS AND TRAINING PROGRAMS 2023-24

**A WATER RESOURCES, HYDROPOWER
AND ALLIED SECTORS**

**B POWER AND RENEWABLE ENERGY
SECTOR**

**C TRAINING PROGRAMS OFFERED BY
CBIP CENTRE OF EXCELLENCE AT
GURUGRAM**

D TECHNICAL AUDIT



CONFERENCES, TUTORIALS AND TRAINING PROGRAMS 2023-24

A. Water Resources, Hydropower and Allied Sectors *

| Sl. No. | Programs Code | TITLE OF THE EVENT | Dates/ Venue |
|---------|---------------|---|--|
| | | A-1 INTERNATIONAL / NATIONAL CONFERENCES | |
| 1 | WRC-1 | International conference on EPC contracts management – Challenges and Issues, | July/August 2023 at Mumbai |
| 2 | WRC-2 | International Conference on Tunnelling for Infrastructure Projects, | September/October 2023, at Rishikesh/ Guwahati |
| 3 | WRC-4 | National Conference on Role of Hydro Power in Achieving Net Zero | 21 to 22 September 2024, New Delhi |
| 4 | WRC-4 | ISRM International Symposium and 13th Asian Rock Mechanics Symposium (ARMS 13) | 24 to 28 September 2024, New Delhi |
| 5 | WRC-5 | International Conference on “Sustainable Concrete technology for Tunnels” | 19th/20th October 2023 at Mumbai |
| 6 | WRC-6 | ITA Award and Tunnelling Asia Conference from | 22nd to 25th November, 2023 at Goa |
| | | A-2 TRAINING PROGRAMME / WORKSHOP | |
| 1 | WRT-1 | Knowledge sharing session on Stainless Steels a lasting solution for tunnel construction and applications | 28 April 2023, New Delhi |
| 2 | WRT-2 | Workshop on Rock mechanics in hydropower projects | May 2023, New Delhi |
| 3 | WRT-3 | Workshop on Rock mechanics in landslide risk analysis and control | June 2023, New Delhi |
| 4 | WRT-4 | Workshop on Application of Geosynthetics in Dam Engineering | 27-28 June 2023, Rishikesh |
| 5 | WRT-5 | Workshops on Conventional Tunnelling; Mechanized tunnelling & Drilling And Blasting For Surface And Underground Excavation | July 2023, New Delhi |
| 6 | WRT-6 | Workshops on Waterproofing in tunnels; Sprayed concrete in underground structures; Health and safety in tunnel construction | August 2023, New Delhi |
| 7 | WRT-7 | Workshop on Use of geo-synthetics in rock engineering projects/ Seepage control in underground structures/tunnels | August 2023, New Delhi |
| 8 | WRT-8 | Workshop on Risk Informed Dam Safety Management | 24-25 August 2023, New Delhi |
| 9 | WRT-9 | Workshop on Tailing Dam Safety | 12-13 October 2023, New Delhi |
| 10 | WRT-10 | Workshops on Risk Management in Tunnelling | October 2023, New Delhi |
| 11 | WRT-11 | Workshop on Rock mechanics in nuclear waste repositories | October 2023, New Delhi |
| 12 | WRT-13 | Workshop on Dam Repairs and Rehabilitation – Deciding Design and Safety Criteria | 23-24 November 2023, New Delhi |
| 13 | WRT-12 | Workshop on Grout operations in rock engineering projects | December 2023, New Delhi |
| 14 | WRT-14 | Workshops on Innovation in Tunnelling Technology | December 2023, New Delhi |
| 15 | WRT-15 | Workshop on Numerical analysis of dams | 11-12 January 2024, New Delhi |
| 16 | WRT-16 | Workshops on Architecture design in tunnels | January 2024, New Delhi |
| 17 | WRT-17 | Workshop on Slope Stabilization Challenges in Infrastructure Projects | February 2024, New Delhi |
| 18 | WRT-18 | Workshop on TBM Related testing rock facility | 22-23 February 2024, New Delhi |
| 19 | WRT-19 | Workshop on Rock Mechanics and Tunnelling Techniques, September, New Delhi | March 2024, New Delhi |
| 20 | WRT-20 | Workshop on Sedimentation Management in Reservoirs for Sustainable Development | March 2024, New Delhi |

*Note : The dates/programs are tentative. The members may refer for updates on our website from time to time (www.cbip.org) and contact the program coordinator before planning participation.



| A-2 TRAINING PROGRAMS (Doorstep / Short Term Program) – Virtual / Physical | | | |
|---|----------------------|---|------------------------|
| Sl. No. | Programs Code | A-3 (i) DAMS AND HYDROPOWER | Duration (days) |
| 1 | WR-1 | Planning, Design & Construction of Earth, Concrete & Rockfill Dams | 3 |
| 2 | WR-2 | Analysis and Design of Concrete Gravity Dams | 5 |
| 3 | WR-3 | Seismic Aspects of Dam Designs | 3 |
| 4 | WR-4 | Roller Compacted Concrete (RCC) Dams | 3 |
| 5 | WR-5 | Construction of Dams and Tunnels in Weak Rocks | 3 |
| 6 | WR-6 | Design and Construction of Ground Improvement Technology Like Diaphragm Wall, Slurry Wall, Piles Foundation, etc. | 3 |
| 7 | WR-7 | Dam Safety Management including Instrumentation of Existing Dams | 3 |
| 8 | WR-8 | Grouting Techniques for Repair of Dams; Quality Control/ Assessment, Machinery; Tests & Analysis | 3 |
| 9 | WR-9 | Use of Advanced Software in Design of Water Resources Structures | 5 |
| 10 | WR-10 | Application of Finite Element Analysis for Water Resources Structures | 5 |
| 11 | WR-11 | Spillway and Energy Dissipation Designs | 3 |
| 12 | WR-12 | Civil Quality Aspects & Mix Design in Hydropower Project Construction | 2 |
| 13 | WR-13 | Assessment of Soil Erosion and Sedimentation Control in Hydropower Projects | 2 |
| 14 | WR-14 | Environmental Aspects of Hydropower Projects | 2 |
| 15 | WR-15 | Environmental Impact Assessment & Effective Implementation Monitoring of EMPs | 2 |
| A-3 (ii) TUNNEL AND UNDERGROUND | | | |
| 16 | WR-16 | Tunnel Design and Construction – Issue & Challenges | 3 |
| 17 | WR-17 | Geotechnical and Geological Investigations under High Over Burden | 2 |
| 18 | WR-18 | Risk Management in Tunnelling Techniques | 3 |
| 19 | WR-19 | Rock Mechanics and Tunnelling Techniques | 2 |
| 20 | WR-20 | Waterproofing for Tunnel and Underground Structures | 2 |
| 21 | WR-21 | Use of TBM/Road Header in Underground Works - Issues & Challenges | 2 |
| 22 | WR-22 | Health and Safety in Tunnel Construction | 3 |
| 23 | WR-23 | Ventilation System in Long Tunnels | 3 |
| 24 | WR-24 | Shotcreting and Grouting | 2 |
| 25 | WR-25 | Drilling & Blasting for Surface and Underground Excavation | 3 |
| 26 | WR-26 | Construction Chemicals and Injection Techniques | 2 |
| 27 | WR-27 | Micro Irrigation | 3 |
| 28 | WR-28 | Construction Chemicals and Injection Techniques | 2 |
| 29 | WR-29 | Design & Construction of Underground Works of Hydropower Project | 3 |
| A-3 (iii) GEOSYNTHETICS | | | |
| 30 | WR-30 | Applications of Geosynthetics in Dams and Hydraulic Structures | 2 |
| 31 | WR-31 | Applications of Geosynthetics for Slope Stability & Landslides | 2 |
| 32 | WR-32 | Applications of Geosynthetics for Ground Improvement | 2 |
| 33 | WR-33 | Geosynthetics Reinforced Soil Slopes and Walls | 2 |
| 34 | WR-34 | Applications of Geosynthetics for Coastal, River and Hill Slope Erosion Control | 2 |
| 35 | WR-35 | Geosynthetics in Mining- Practice and Developments | 2 |
| A-3 (iv) MISCELLANEOUS TOPICS | | | |
| 36 | WR-36 | Earthquake Resistant Structural Design | 2 |
| 37 | WR-37 | Quality Management and Trends in Construction | 2 |
| 38 | WR-38 | Concrete Technology | 2 |
| 39 | WR-39 | Shotcrete Technology and High Performance Concrete (Including Self Compacting Concrete) | 2 |
| 40 | WR-40 | Construction and Contract Management | 2 |
| 41 | WR-41 | Environmental Aspects of Water Resources Projects | 2 |



| | | | |
|----|-------|---|---------|
| 42 | WR-42 | Modernization of Irrigation Scheme Policies, Strategy, Technology, and Investment | 3 |
| 43 | WR-43 | Performance assessment of irrigation scheme | 2 |
| 44 | WR-44 | Claimant Change and Water Management | 2 |
| 45 | WR-45 | Sustainable Development of Ground Water | 2 |
| 46 | WR-46 | Water Resource Augmentation by Treated Water | 2 |
| 47 | WR-47 | Improving Crop Production through Micro Irrigation | 2 |
| 48 | WR-48 | Micro Irrigation for Improving Water Use Efficiency | 2 |
| 49 | WR-49 | Latest Technology in Micro Irrigations | 2 |
| 50 | WR-50 | Training Programmes for ET (Civil) | 7 weeks |

B. POWER AND RENEWABLE ENERGY SECTOR *

| Sl. No. | Programs Code | TITLE OF THE EVENT | Dates | Venue |
|---|---------------|---|-------------------------|-----------|
| B-1 INTERNATIONAL CONFERENCES (PHYSICAL) | | | | |
| 1 | PC-1 | 7th International Conference on 'Power System Protection and Automation' | November 2023 | New Delhi |
| 2 | PC-2 | International Colloquium on 'Grid stability with enhanced penetration of Renewables - Technical Challenges & regulatory frame work' | 8th – 12th January 2024 | Goa |
| B-2 NATIONAL CONFERENCES (PHYSICAL) | | | | |
| 1 | PC-1 | National Conference on 'New technology for carbon neutrality and digitalization' under the aegis of NSC B3 | June 2023 | New Delhi |
| 2 | PC-2 | Conference on 'Failure Analysis of Power Transformer / Reactor – Case Studies' | July 2023 | New Delhi |
| 3 | PC-3 | National Conference on "Energy Storage including Pumped Storage - Opportunities and Challenges" | August 2023 | New Delhi |
| 4 | PC-4 | 14th National Conference on "Earthing Systems" | September 2023 | New Delhi |
| 5 | PC-5 | National Conference on the Amorphous Core Transformer - Advantages | December 2023 | Lucknow |
| 6 | PC-6 | National Workshop on 'Energy Management, Energy Conservation and Energy Audit' | February 2024 | New Delhi |
| B-3 Training Programme / Workshop | | | | |
| 1 | PT-1 | Hands-on Training 'Line and Differential Protection' | 19th – 21st April 2023 | Goa |
| 2 | PT-2 | Hands-on Training 'EHV Substation Engineering' | 2nd – 4th May 2023 | Goa |
| 3 | PT-3 | Hands-on Training on 'Substation Automation' | 15th – 17th May 2023 | Vadodara |
| 4 | PT-4 | Hands-on Training 'POWER TRANSFORMER' | 17th – 19th May 2023 | Vadodara |
| 5 | PT-5 | Hands-on Training 'MV Gas Insulated Switchgear' | 29th – 31st May 2023 | Goa |
| 6 | PT-6 | Hands-on Training 'EHV GIS Substation Engineering' | 14th – 16th June 2023 | Vadodara |
| 7 | PT-8 | Hands-on Training TBA Siemens | June 2023 | Goa |
| 8 | PT-9 | Hands-on Training 'Diagnostic and Condition Monitoring of Switchyard Equipment' | 12th – 14th July 2023 | Vadodara |
| 9 | PT-9 | Hands-on Training TBA Siemens | July 2023 | Goa |
| 10 | PT-10 | Hands-on Training 'Dry-type transformer' | 23rd – 25th August 2023 | Vadodara |
| 11 | PT-11 | Hands-on Training TBA Siemens | August 2023 | Goa |
| 12 | PT-12 | Hands-on Training 'EHV Circuit Breaker - Design, Application, site installation, O&M, recent developments' | 20th – 22nd Sep. 2023 | Vadodara |
| 13 | PT-13 | Hands-on Training TBA Siemens | September 2023 | Goa |
| 14 | PT-14 | Hands-on Training 'Electrical Fire Safety & First Aid' | 18th – 20th Oct. 2023 | Vadodara |

* Note : The dates/programs are tentative. The members may refer for updates on our website from time to time (www.cbip.org) and contact the program coordinator before planning participation.



| | | | | |
|----|-------|--|---------------------------|-----------|
| 15 | PT-15 | Hands-on Training on 'Power System Network Study and Analysis' | October 2023 | New Delhi |
| 16 | PT-16 | Hands-on Training TBA Siemens | October 2023 | Goa |
| 17 | PT-17 | Hands-on Training 'Power System Earthing' | 22nd – 24th Nov. 2023 | Vadodara |
| 18 | PT-18 | Hands-on Training TBA Siemens | November 2023 | Goa |
| 19 | PT-19 | Hands-on Training 'HV Gas Insulated Switchgear' | 13th – 15th December 2023 | Vadodara |
| 20 | PT-20 | Hands-on Training TBA Siemens | December 2023 | Goa |
| 21 | PT-21 | Hands-on Training 'Instrument Transformer' | 17th – 18th January 2024 | Vadodara |
| 22 | PT-22 | Hands-on Training TBA Siemens | January 2024 | Goa |
| 23 | PT-23 | Hands-on Training 'Battery Energy Storage System' | 21st – 23rd February 2024 | Vadodara |
| 24 | PT-24 | Hands-on Training TBA Siemens | February 2024 | Goa |
| 25 | PT-25 | Hands-on Training 'Power System Protection' | 4th – 6th March 2024 | Vadodara |
| 26 | PT-26 | Hands-on Training on 'Power System Network Study and Analysis' | March 2024 | New Delhi |
| 27 | PT-27 | Hands-on Training TBA Siemens | March 2024 | Goa |

| B-4 TRAINING PROGRAMS (Door Step/Short Term Programs) – Virtual /Physical | | | |
|--|---------------------|--|------------------------|
| Sl. No. | Program Code | B-4 (i) HYDRO POWER GENERATION (E&M) | Duration (days) |
| 1 | P1 | Tutorial on Best Practices and Other O&M Aspects of Hydro Power Station Including Safety Requirement | 10 |
| 2 | P2 | Operation & Maintenance of Hydro Turbines & Generators | 3 |
| 3 | P3 | Current Practices in Power System Protection / Protection Principles, Applications and Analysis | 3 |
| 4 | P4 | Generator Excitation System | 3 |
| 5 | P5 | Governing System of Hydraulic Turbines (RGMO & FGMO) including Power Feedback and Frequency Control Mode of Operation) | 3 |
| 6 | P6 | Gas Insulated Switchgear (GIS) – Layout, Maintenance and Trouble Shooting | 3 |
| 7 | P7 | Control System, SCADA & Communication Network | 3 |
| 8 | P8 | Generator Transformer: Design, Erection, Commissioning and Maintenance | 3 |
| 9 | P9 | Life Management of Transformers and Reactors | 3 |
| 10 | P10 | Vibration Analysis, Alignment & Balancing | 3 |
| 11 | P11 | Grid Discipline - Fault Analysis, Management, Operation of Power Station | 3 |
| 12 | P12 | Circuit Breaker & Switchyard Equipment, CT, PT&CVT etc | 3 |
| 13 | P13 | RLA Services for Hydro Turbine and Hydro Generator, RLA techniques, Laboratory Evaluation Services, Trouble Shooting Services for Hydro Plants and Upgrading Studies | 3 |
| 14 | P14 | Renovation, Modernization and Upgradation /Life Extension of Hydro Electric Power Station | 3 |
| 15 | P15 | Earthing System in Hydro power station | 3 |
| 16 | P16 | Regulating Electricity Tariffs and Related Issues, (CERC Regulations, SERCs including IEGC) | 3 |
| 17 | P17 | Tariff Design Challenges | 3 |
| 18 | P18 | Challenges of Construction in Electricity Sector | 3 |
| 19 | P19 | Open Access | 2 |



| | | | |
|----|-----|--|---|
| 20 | P20 | Core Issues of Electricity – Regulation Perspective | 2 |
| 21 | P21 | Best O&M Practices & Other O&M Aspects of Hydro Power Station including Safety Requirement | 3 |
| 22 | P22 | Energy Management System | 3 |
| 23 | P23 | Power Economics | 3 |
| 24 | P24 | O&M Aspect of HM Equipment in HE Projects | 3 |
| 25 | P25 | O&M of EOT/Gantry Cranes and Hoist | 2 |
| 26 | P26 | General Safety Awareness Electrical Safety & Basic Fire Safety System | 3 |
| 27 | P27 | Disaster, Safety Management and Fire Fighting System of Hydro Power Station | 3 |
| 28 | P28 | Power Pricing and Power Market | 3 |
| 29 | P29 | Contracts and Purchase Management | 3 |
| 30 | P30 | Store Management & Inventory Control | 3 |

| Sl. No. | Program Code | B-4 (ii) POWER GENERATION (THERMAL) | Duration (days) |
|---------|--------------|--|-----------------|
| 31 | P31 | Performance Optimization and Condition Monitoring of Thermal Assets | 3/2 |
| 32 | P32 | Coal Characteristics, Blending , Mill performance & Combustion and Optimization | 3/2 |
| 33 | P33 | Water Optimization and Zero Discharge for Thermal Plants | 3/2 |
| 34 | P34 | Store Management& Inventory Control | 3/2 |
| 35 | P35 | Root Cause Analysis and Condition Monitoring of Motors | 3/2 |
| 36 | P36 | Power Plant Performance-Analysis& Optimization | 3/2 |
| 37 | P37 | Environmental Issues, Challenges and Solutions for Thermal Plants | 3/2 |
| 38 | P38 | Strategies for cost Effective Maintenance Management System in a Power Plant | 3/2 |
| 39 | P39 | Auxiliary Power Optimization & Improvement | 3/2 |
| 40 | P40 | Gas Turbine Power Plant Performance in Open and Combined Cycle-analysis and Optimization | 3/2 |
| 41 | P41 | Corrosion related problems and their remedial measures in Thermal Power Plants | 3/2 |
| 42 | P42 | Coal Combustion Issues in Thermal Power Plants | 3/2 |
| 43 | P43 | Coal, Oil and Water Sample Analysis | 3/2 |

| Sl. No. | Program Code | B-4 (iii) TRANSMISSION SYSTEM | Duration (days) |
|---------|--------------|--|-----------------|
| 44 | P44 | Operation and Maintenance of Substation equipments | 3 |
| 45 | P45 | Gas Insulated Switchgear (GIS) – Layout, Maintenance and Trouble shooting | 3 |
| 46 | P46 | Operation and Maintenance of Transmission line including condition monitoring | 3 |
| 47 | P47 | Power system protection- Protection principles, Application and analysis | 3 |
| 48 | P48 | Power Transformers & Reactors- Operation and Maintenance, Erection, Testing & Commissioning, Insulating Oil properties | 3 |
| 49 | P49 | Power Transformers & Reactors- Tender Specifications, Design aspect, Latest trends in Power Transformers | 2 |
| 50 | P50 | Life management of Transformers and Reactors | 2 |
| 51 | P51 | Design and Construction practices for Substation | 2 |
| 52 | P52 | Design and Construction practices for Transmission line including foundation | 2 |
| 53 | P53 | SCADA in Transmission system | 3 |
| 54 | P54 | Smart grid concept in Transmission - Issues and Challenges | 2 |



| | | | |
|----|-----|---|---|
| 55 | P55 | Effective Energy management and Power quality issues | 2 |
| 56 | P56 | Indian Electricity Act, Indian Electricity Grid Code and Regulations for Transmission utilities | 2 |
| 57 | P57 | FACT Devices, Controlled Switching Device Fault current limiters – need and benefits | 2 |
| 58 | P58 | Latest development in metering technology including smart meters | 2 |
| 59 | P59 | Regulatory and commercial aspect including tariff design | 3 |
| 60 | P60 | Earthing system and it's importance | 2 |
| 61 | P61 | Procurement, Inventory and Store management | 2 |
| 62 | P62 | Electrical and Fire safety including prevention of Accidents | 3 |
| 63 | P63 | Disaster management | 2 |
| 64 | P64 | Transformer Maintenance & testing for supervisor/technician | 2 |
| 65 | P65 | Narrow base Tower | 2 |
| 66 | P66 | Communication needs in Transmission utilities- Use of OPGW and it's benefit | 2 |

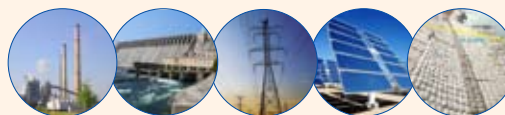
| Sl. No. | Program Code | B-4 (iv) DISTRIBUTION SYSTEM | Duration (days) |
|---------|--------------|--|-----------------|
| 67 | P67 | Revenue management and loss reduction Techniques in Distribution system | 2 |
| 68 | P68 | Improving the health of Distribution system including Distribution automation, Power quality, Distribution franchise | 3 |
| 69 | P69 | Failure of Distribution Transformer, it's prevention and repair | 2 |
| 70 | P70 | Grid discipline and Effective Energy management | 2 |
| 71 | P71 | Distribution metering & advanced technology including Smart meters | 2 |
| 72 | P72 | Smart grid concept in Distribution- Issues and challenges | 2 |
| 73 | P73 | Distribution management with SCADA & Communication system | 2 |
| 74 | P74 | Power quality, Harmonics mitigation & Reactive power management | 2 |
| 75 | P75 | Power Trading and Power market | 2 |
| 76 | P76 | Electrical and Fire safety, Accident causes and prevention | 3 |
| 77 | P77 | Disaster management system | 2 |
| 78 | P78 | Maintenance and handling of Underground/ ABC Cables | 3 |
| 79 | P79 | Operation and Maintenance of Substation equipments | 2 |
| 80 | P80 | Operation and Maintenance of Overhead Transmission line | 2 |
| 81 | P81 | Distribution System – Construction practices for Substation and Transmission line | 3 |
| 82 | P82 | Distribution system protection- Protection principles, Application and analysis | 2 |
| 83 | P83 | Power/ Distribution Transformers- Construction, Erection, Testing and Commissioning, Operation & Maintenance | 2 |
| 84 | P84 | Procurement, Inventory and Store management | 2 |
| 85 | P85 | Energy audit and Demand side management | 3 |
| 86 | P86 | Earthing practices in Electrical installation and related safety | 2 |
| 87 | P87 | Redressal of customer grievances, customer satisfaction and customer relation management | 2 |
| 88 | P88 | Electricity act 2003 & Rules/regulation framed there under, Labour law, dealing with court cases | 3 |
| 89 | P89 | Tariff Policy & Submission of ARR | 2 Days |
| 90 | P90 | Regulatory framework including Regulations, Policy | 3 Days |
| 91 | P91 | Rural Electrification- Project planning and DPR preparation | 3 Days |

| Sl. No. | Program Code | B-5. RENEWABLE ENERGY SECTOR | Duration (days) |
|---------|--------------|---|-----------------|
| 1 | RE1 | Solar P.V. System and Solar Roof Top System | 2 |
| 2 | RE2 | Renewable Energy System | 2 |
| 3 | RE3 | Government Initiatives, Targets, Roles & Challenges in Renewable Energy sector including Energy Storage | 2 |



CENTRE OF EXCELLENCE AT GURUGRAM

| C. Training Programs offered at Gurugram | | | |
|--|--------------|--|-----------------|
| Sl. No | Program Code | C-1. PROGRAMS | Duration (Days) |
| 1 | CoE1 | Post Graduate Diploma Course in Operation & Maintenance of Transmission & Distribution System as per CEA Regulation 2010 | 182 |
| 2 | CoE2 | Post Graduate Diploma Course in Power Plant Engineering as per CEA Regulation 2010 | 365 |
| 3 | CoE3 | Post Graduate Diploma Certificate on Distribution System Engineering as per CEA Regulation 2010 | 90 |
| 4 | CoE4 | Post Graduate Diploma in Civil Construction, Planning & Designing | 182 |
| 5 | CoE5 | Online Certification course in Renewable Energy Development including Grid Integration and Energy Storage System | 65-70 Hrs. |
| 6 | CoE6 | Online Certification Course on Cyber Security for Power Professionals | 03 Months |
| 7 | CoE7 | Training Program on Power Transmission System -Design, Construction, Testing & Commissioning and O&M | 05 |
| 8 | CoE8 | Maintenance Management System in Power Stations and Industries | 02 |
| 9 | CoE9 | Root Cause Analysis & Condition Monitoring of Motors | 02 |
| 10 | CoE10 | Smart Grid System and SCADA Technology | 02-03 |
| 11 | CoE11 | Distribution System Management and Transformer Maintenance Technique | 02-03 |
| 12 | CoE12 | IT Application on Distribution System | 02-03 |
| 13 | CoE13 | O&M of Distribution System | 03 |
| 14 | CoE14 | Advances in Super Critical Technologies | 01 |
| 15 | CoE15 | Water Optimization in Thermal Power Plant | 01 |
| 16 | CoE16 | FGD System and NOx Reduction Technologies for Air Quality Improvement | 01 |
| 17 | CoE17 | Artificial Technologies in Power Station | 01 |
| 18 | CoE18 | A Hybrid Solar Wind Power Generation System | 02 |
| 19 | CoE19 | Offshore Wind Farm including Transmission | 01 |
| 20 | CoE20 | Contract & Procurement Management | 02 |
| 21 | CoE21 | Project Planning Management | 02 |
| 22 | CoE22 | Supply Chain Analysis | 02 |
| 23 | CoE23 | Increase in Productivity through Fun Management in office & factory | 02 |
| 24 | CoE24 | HR & Finance Management | 02-03 |
| 25 | CoE25 | Attitude for Excellence Making Future Ready | 02 |
| 26 | CoE26 | Improving Work Place Culture – Power of Positive Attitude | 02 |
| 27 | CoE27 | Personal effectiveness development to meet the challenges of new competitive era | 02 |
| 28 | CoE28 | Happiness at work | 02 |
| 29 | CoE29 | Competency Mapping | 02 |
| 30 | CoE30 | Planning for Superannuation | 02 |
| 31 | CoE31 | Disaster Management & Quick Response Team | 03 |
| 32 | CoE32 | Best Practices in Safety during O&M | 02 |
| 33 | CoE33 | General Safety Precaution, Fire Fighting & First Aid | 03 |
| 34 | CoE34 | Safety Health & Environment | 02 |
| 35 | CoE35 | Health Hygiene Safety and CPR Based Training | 02 |
| 36 | CoE36 | Central Electricity Authority (Measure relating to Safety and Electric Supply) Regulation, 2018 | 02 |
| 37 | CoE37 | Finance for Non Finance Executives | 02 |
| 38 | CoE38 | Goods and Service Tax (GST) | 01 |
| 39 | CoE39 | Energy Audit & Management | 01 |
| 40 | CoE40 | Customized Training Program on Soft Skill | 02-03 |
| 41 | CoE41 | Companies Act 2013 and SEBI (Listing obligations and disclosure) Regulation 2015 | 02 |



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|----|-------|--|-------------|
| 42 | CoE42 | Legislations related to Labour/ Welfare & Sexual Harassment | 02 |
| 43 | CoE43 | Discipline & Disciplinary Procedure | 02 |
| 44 | CoE44 | Preventive Vigilance | 02 |
| 45 | CoE45 | ERP Implementation | 01 |
| 46 | CoE46 | Lean Six Sigma Green Belt | 02 |
| 47 | CoE47 | Strengthening the skill India initiative by providing training under skill development in Power Sector, Green Jobs and Electronics Sectors for various job roles which QPs/NOS are developed by NSDC | 01-04 Weeks |
| 48 | CoE48 | Induction Training Program (Residential) for Trainee Engineers/ Trainee Officers / Junior Engineers | Customized |
| 49 | CoE49 | Leadership development interventions like Enterprises Risk Management Strategic Management and Boundary Management for Senior executives | Customized |



Conclave on Harnessing of Hydropower Potential – A Way Forward – 16th December 2022, New Delhi



View of Audience – National Conference on Failure of Major Equipment's of Sub Station - Case Studies, 23rd - 24th February 2023, New Delhi



4. LIST OF TRAINING PROGRAMS/ TUTORIALS/CONFERENCES ORGANIZED DURING 2022 – 2023

4.1 WATER RESOURCES HYDROPOWER AND ALLIED POWER

| Sl. No. | TOPICS | Date |
|---------|---|--------------------------------------|
| 1 | Physical Conference on Hydropower and Dams Development for Water and Energy Security- Under Changing Climate at Rishikesh | April 7-9, 2022 |
| 2 | Virtual Workshop on Concrete Technology | May 11, 2022 |
| 3 | Virtual Training Programme on Tunnel Shaft & Cross Passage Construction by Dr. Harald Wagner | May 20, 2022 |
| 4 | Virtual Training Programme on Waste Management | May, 2022 |
| 5 | Virtual session on Rock mechanics in Hydropower Projects-Shri SL Kapil | June 8, 2022 |
| 6 | Virtual Workshop on Tunnel Design at New Delhi | June 29 & 30, 2022 |
| 7 | Virtual Training Programme on Slope Stability | June, 2022 |
| 8 | Virtual Training Programme for NVDA Officers the topic Irrigation Water Resources Management | May 9-10, 2022 |
| 9 | Virtual Workshop on Modern approaches to Waterproofing | March 16 & 17, 2022 |
| 10 | Virtual Training Programme on Innovations in Mechanized Tunnelling by Dr. Harald Wagner | May 19, 2022 |
| 11 | Virtual Training Programme on Design of Energy Dissipators by Prof. em. Dr. Anton J. Schleiss | April 27-28, 2022 |
| 12 | Virtual Training Programme on Operation Maintenance and Rehabilitation of Dams by AECOM | July 6 & 7, 2022 |
| 13 | Virtual Session on TBM Partial Excavation Operation, Design and Burial challenges by Mr. Keivan Rafie | July 22, 2022 |
| 14 | Virtual Training Programme on Best Practices in Cross Passages Construction | July 28 & 29, 2022 |
| 15 | Innovative Construction Technologies in Hydropower/ modern techniques and practices in hydro project constructions | November 16-19, 2022 |
| 16 | Design of Tunnels and Caverns for Hydropower Projects | December 7-9, 2022 |
| 17 | Tunnelling in difficult ground conditions/ new tunnelling excavation techniques | December 21-23, 2022 |
| 18 | Virtual Webinar on Risk Assessments, Professional Duties and other Disasters - a Guide for Young Professionals by Prof. Arnold Dix, President,ITA | 18th February, 2023 |
| 19 | Virtual Training on Integrated Water Resources Management | 09 – 10 May 2022, New Delhi |
| 20 | Brainstorming Session on Development of Small Hydro – Issues and Challenges | 22nd July 2022, New Delhi, New Delhi |
| 21 | Round Table Discussion with IASH (International Association for small hydro) Delegates at Delhi | 15th September 2022, New Delhi |
| 22 | Brainstorming Session on Financing of Small Hydropower Project | 12th January 2023, New Delhi |
| 23 | National Conference on Preparedness on Disaster Prevention & Management for Hydro Power Projects | 23rd January 2023, New Delhi |

4.2 POWER AND RENEWABLE ENERGY SECTORS

| S. N. | Date | Name of Training/Conference | Mode of Training/Conference |
|-------|------------------------|---|-----------------------------|
| 1. | 28th – 29th April 2022 | Training Program on 'Transformer design features, latest technologies & factory testing' | Online |
| 2. | 12th–13th May 2022 | National Tutorial on 'Understanding SCADA System' | Online |
| 3. | 18th–20th May 2022 | Training Program on 'Mastering the Financial Modelling of Solar Power Plants' | Online |
| 4. | 25th – 26th May 2022 | 02 Days Conference on Power Reforms – Process, Expectation & Achievements | Physical, Vadodara |
| 5. | 16th– 17th June 2022 | National Tutorial on 'Concepts in Cyber Security of Power Grid and Smart Grid' | Online |
| 6. | 22nd June 2022 | 765 KV Transmission System for TATAPOWER | Online |
| 7. | 23rd – 24th June 2022 | National Seminar on 'Electrical and Fire Accidents in Power Industry - Causes and Prevention' | Physical, Shimla |
| 8. | 19-21 July 2022 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | SALAL/NHPC |



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|-----|----------------------------|---|-------------------------------|
| 9. | 29th – 30th June 2022 | National Tutorial on 'Features in Modern Numerical Relays for Enhancing the performance of Power System Protection' | Online |
| 10. | 21st – 22nd July 2022 | National Conference on 'Latest Developments and Advances in Power Transformers' | Physical, CBIP, Delhi |
| 11. | 27th – 30th July 2022 | International Conference on 'Global Power Sector Challenges and Mitigation' | Physical, Almaty, Kajakisthan |
| 12. | 19th – 20th Aug. 2022 | Training program on O&M of Transmission Lines including condition monitoring | Physical, Bhubaneswar |
| 13. | 22nd - 24th Aug. 2022 | Training Program on Safety Related Statutory Provisions at | SUBANSIRI/NHPC |
| 14. | 28th Aug. to 2nd Sep. 2022 | CIGRE session 2022 | Physical, Paris |
| 15. | 21st – 23rd Sep. 2022 | Hands-on Training on 'EHV Circuit Breaker O&M' jointly with Hitachi Energy | Physical, Vadodara |
| 16. | 29th – 30th Sep. 2022 | Practical Training on 'Power System Network Study And Analysis' | Physical, CBIP, Delhi |
| 17. | 3rd – 4th Oct. 2022 | Training program for BBMB on Cyber Security | Physical |
| 18. | 17th – 18th Oct. 2022 | 13th National Conference on 'Earthing Systems' | Physical, CBIP, Delhi |
| 19. | 17th -19th Oct. 2022 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | Loktak/NHPC |
| 20. | 22nd Oct. 2022 | Training program for Tata Power on Reforms in Power sector | Online |
| 21. | 02nd – 04th Nov. 2022 | Operation & Maintenance of Substations Equipment's including System Stabilities (03 Days) | Physical, Bhubaneswar |
| 22. | 3rd – 4th Nov. 2022 | National Conference on 'Energy Storage including Pumped Storage - Opportunities and Challenges' | Physical, Shimla |
| 23. | 3rd - 05th Nov. 2022 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | NJHPS/SJVNL |
| 24. | 16th – 18th Nov. 2022 | Construction Challenges in Power Transmission Projects including Environmental / Forest Clearances (03 Days) | Physical, Bhubaneswar |
| 25. | 10th – 11th Nov. 2022 | National Conference on 'Challenges in Distribution Sector and its Mitigations' | Physical, Kolkata |
| 26. | 06th - 08th Dec. 2022 | Training Program on Electrical Safety and Basic Fire Safety and Disaster Management | Dulhasti/NHPC |
| 27. | 12th - 14th Dec. 2022 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | Teesta-V/NHPC |
| 28. | 16th Dec. 2022 | Conclave on 'Harnessing of Hydro Potential – A way forward' - (Large hydro active reach out (LAHAR) initiative) | Physical, New Delhi |
| 29. | 14th – 16th Dec. 2022 | Hands-on Training on 'HV Gas Insulated Switchgear' jointly with Hitachi Energy | Physical, Vadodara |
| 30. | 11th - 12th January 2023 | Training Program on Safety Management in O&M of Power Plants, Disaster Plan, Fire Safety Management & Chemical Safety | on Line |
| 31. | 18th – 19th Jan. 2023 | National Tutorial on 'Smart Grid Standards - Specifications, Requirements, and Technologies' | Physical, New Delhi |
| 32. | 18th – 20th Jan. 2023 | Hands-on Training on 'Diagnostic and Condition Monitoring of Switchyard Equipment' jointly with Hitachi Energy | Physical, Vadodara |
| 33. | 3rd Feb. 2023, New Delhi | National Conference on CEA Regulations on Safety Requirements | Physical |
| 34. | 9th – 10th Feb. 2023 | Workshop on 'Energy Management, Energy Conservation and Energy Audit' | Physical, New Delhi |
| 35. | 15th – 16th Feb. 2023 | National Tutorial on 'Electric Safety: Practice and Standards' | Physical, New Delhi |
| 36. | 21st - 23rd Feb. 2023 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | Kishanganga/NHPC |
| 37. | 23rd - 24th Feb. 2023 | Training Program on General Safety Awareness, Electrical Safety and Basic Fire Safety | URI/NHPC |
| 38. | 22nd – 24th Feb. 2023 | Hands-on Training on 'Principles of Protection Technology' jointly with Siemens | Physical, Goa |
| 39. | 23rd – 24th Feb. 2023 | National Conference on 'Failure of Major Equipment's of Sub Station - Case Studies' | Physical, New Delhi |
| 40. | 3rd March 2023 | CBIP Day and CBIP Awards Function, 2022 | Physical, New Delhi |
| 41. | 9th – 10th Mar. 2023 | National Conference on 'Latest Trends & Innovations in 'Insulated Cables and Overhead Lines' | Physical, New Delhi |



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| 42. | 15th – 17th Mar. 2023 | Hands-on Training on 'Power System Network Study and Analysis' | CBIP, New Delhi |
| 43. | 15th -17th March 2023 | 6th Best Practices Study Tour and International Workshop on Agri PV Plants, RE Grid Integration and Green Hydrogen | Jodhpur |
| 44. | 27th – 29th Mar. 2023 | Hands-on Training on 'Substation Automation' jointly with Siemens | Physical, Goa |
| 45. | 27-29 March 2023 | Training program on 'Advanced Power System Protection' exclusively for the professionals of Dhauliganga Project of NHPC Ltd. | Online |
| 46. | 31st Mar.– 1st Apr. 2023 | National Conference on 'Cyber Security challenges for Power Grid & Smart Grid Networks' | Physical, IIT, Tirupati |

4.3 CBIP CENTRE OF EXCELLENCE AT GURUGRAM

| S.N. | Title of the Program | Date |
|------|--|--------------------------------|
| 1 | 04 Days Specialized Program on "Advanced Management for Sr. Executives from NHPC | 01 - 04 April 2022 |
| 2 | 02 Days Training Program on "Preventive Vigilance" for the executives of DVC | 06 - 08 April 2022 |
| 3 | Online Test and Written Test for consideration of Promotion for E-1 to E-2 Grade | 10th April 2022 |
| 4 | Team work, Team building & Emotional Intelligence; Evaluating Self Performance for Achieving Organizational Goal (Prog - 10) | 11 - 12 April 2022 |
| 5 | Training Program for the Contract Workers (EMD and FMEM) at RLI Vindhyachal (Batch 1) | 11 - 19 April 2022 |
| 6 | 02 Days Training Program on "Planning for Superannuation" for the Executives of DVC | 19 - 20 April 2022 |
| 7 | Training Program for the Contract Workers (EMD and FMEM) at RLI Vindhyachal (Batch 2) | 20 - 26 April 2022 |
| 8 | Team work, Team building & Emotional Intelligence; Evaluating Self Performance for achieving Organizational Goal (Prog - 11) | 26 - 27 April 2022 |
| 9 | Training Program for the Contract Workers (EMD and FMEM) at RLI Vindhyachal (Batch 3) | 27 April - 04 May 2022 |
| 10 | Training Program for the Contract Workers (EMD and FMEM) at RLI Vindhyachal (Batch 4) | 05 - 11 May 2022 |
| 11 | Non-Technical Training Programme at EETIs & KJTC under HRD Department, WBSEDCL (Prog - 12) | 19 - 20 May 2022 |
| 12 | Promotional Training Programme of SO(A/c) and DM(Fin.) for the post of AM (Fin.) & Manager (Fin.) of DTL | 30 May - 03 June 2022 |
| 13 | Training Program for Skill Development of ITI Qualified Operators at North Karanpura Super Thermal Power Project | 06 - 11 June 2022 |
| 14 | Training Program on Disaster Management for executives of BKTPP, WBPDC (Prog. 1) | 8 - 10 June 2022 |
| 15 | Online Training Program on ERP Implementation for the executives of DVC | 13 - 14 June 2022 |
| 16 | Online Session on "Yoga" for the executives of DVC, Kolkata | 14 - 28 June 2022 |
| 17 | One Day Training Program on Mastering Managerial Communication Competencies plus Marketing & Liasioning | 15th June 2022 |
| 18 | Training Program on "Condition Assessment and Maintenance of Induction Motor" for the Executives of WBPDC at SGTPS | 29 - 30 June 2022 |
| 19 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 5) | 04 - 09 July 2022 |
| 20 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 6) | 11 - 16 July 2022 |
| 21 | Non-Technical Training Programme at EETIs & KJTC under HRD Department, WBSEDCL (Prog - 13) | 12 - 13 July 2022 |
| 22 | Non-Technical Training Programme at EETIs & KJTC under HRD Department, WBSEDCL (Prog - 14) | 14 - 15 July 2022 |
| 23 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 7) | 18 -23 July 2022 |
| 24 | Non-Technical Training Programme at EETIs & KJTC under HRD Department, WBSEDCL (Prog - 15) | 21 - 22 July 2022 |
| 25 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 8) | 25 - 30 July 2022 |
| 26 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 9) | 01 - 06 Aug 2022 |
| 27 | 26 Weeks PGDC Course in T&D | 1st Aug, 2022 - 31st Jan, 2023 |
| 28 | Training Program on Disaster Management for the executives of STPS, WBPDC (Prog. 2) | 03 - 05 August 2022 |
| 29 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 10) | 08 - 13 Aug 2022 |



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| 30 | Training Program on "Condition Assessment and Maintenance of Induction Motor" for the Executives of WBPDCCL at SGTPS | 22 - 23 August 2022 |
| 31 | Online Training Program on Transmission System - Design, Erection & Commissioning and O&M for the Executives of Adani Transmission Ltd. | 23rd August, 2022 |
| 32 | Training Program on "Water Optimization" for the executives of WBPDCCL at SGTPS | 26 - 27 August 2022 |
| 33 | 05 Weeks Training Program for Newly recruited Executives / Trainee Engineers of NHPC Ltd. | 29 Aug - 29 Sep 2022 |
| 34 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 11) | 29 Aug - 03rd Sep 2022 |
| 35 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 12) | 05 - 10 Sep 2022 |
| 36 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 13) | 12 - 17 Sep 2022 |
| 37 | 03 Days Training Programme on IEC 61850 Based Substation Automation System for the Executives of Electricity Department of GOA | 19 - 21 Sep 2022 |
| 38 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 14) | 19 - 24 Sep 2022 |
| 39 | 02 Days Training Program on "Planning for Superannuation" for the executives of DVC | 20 - 21 Sep 2022 |
| 40 | 02 Days' Training on "Condition Assessment and Maintenance of Induction Motor" of KTPS, WBPDCCL | 20 - 21 Sep 2022 |
| 41 | Training Program for Operation department Contract Workers at NTPC Vindhyachal Power Station (Batch 15) | 26 Sep - 01 Oct 2022 |
| 42 | 02 Days Onsite Management Training Program for Middle & Senior Level Executives of CSPGCL at PGTI, Korba | 29 - 30 Sep 2022 |
| 43 | 02 Weeks Induction Training Program for the Management Trainees of OPTCL | 10th Nov- 23rd Nov 2022 |
| 44 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 16th Nov 2022 |
| 45 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 18th Nov 2022 |
| 46 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 21st Nov 2022 |
| 47 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 23rd Nov 2022 |
| 48 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 25th Nov 2022 |
| 49 | Training Programme on Disaster Management for the Executives of West Bengal State Electricity Transmission Co. Ltd. | 28th Nov 2022 |
| 50 | 07 Days Specialized Training Program on EHV AIS Substation Design for Executives of Nepal Electricity Authority (NEA) from Nepal Hydro and Electric Ltd. (NHE) | 5th to 12th January 2023 |
| 51 | 01-day Program on FGD System and NOx Reduction Technologies for Air Quality Improvement (Announced) at CBIP CoE Gurgaon | 30th Jan, 2023 |
| 52 | Online Certification Course in "Renewable Energy Development including Grid Integration and Energy Storage System"- 4th Batch (Duration 65 Hrs) | Started from 30th Jan, 2023 |
| 53 | 26 Weeks PGDC Course in Transmission and Distribution Systems with Automation SCADA/ DMS Commenced from 1st Feb, 2023 at CBIP CoE Gurgaon | 1st Feb – 31st July, 2023 |
| 54 | In house Training Program on "Water Optimization in Thermal Power Plants" for the Executives of WBPDCCL at Kolaghat Thermal Power Station (BTPS) | 16th – 17th Feb, 2023 |
| 55 | 2 Days training programme on "FGD and NOx reduction" for the employees of DVC at Mejia Thermal Power Station (MTPS) and Chandrapura Thermal Power Station (CTPS) on 20th & 21st and 23rd & 24th Feb, 2023 respectively. | 20th - 24th Feb, 2023 |
| 56 | In house Training Program on "Condition Assessment and Maintenance of Induction Motor" for the Executives of WBPDCCL at Bandel Thermal Power Station (BTPS) | 20-21st Feb, 2023 |
| 57 | 5 Weeks Induction Training Program for Executives from NHPC at CBIP CoE Gurgaon | 27th Feb - 29th March, 2023 |
| 58 | 05 Days Training Program on Power Transmission System –Design, Construction, Testing & Commissioning and O&M at CBIP Centre of Excellence, Gurugram, Haryana | 20th-24th March 2023 |
| 59 | 02 Days Program on Transmission & Distribution System for the Executive of IPCL, at Kolkata | 14-15 March 2023 |
| 60 | 02 Days Bearing maintenance, condition, Monitoring, analysis and prevention failure at PGTI, CSPGCLat Kolkata | 23-24 March 2023 |



D. TECHNICAL AUDIT OF POWER STATIONS – ORGANIZED DURING 2022 – 2023

| SN | Audit of Hydro Power Stations | Dates |
|---------------------------------------|---|----------------------|
| 1 | Technical Audit of 5 Power Plants of MPPGCL : TONS (3x105MW); Deolond (3x20MW); Jhina (2x10MW); Madhikheda (3x20MW); Birsinghpur (1x20MW) | 28.10.22 to 12.11.22 |
| 2 | Technical Audit of Power Plants of UJVNL Two Power Station : Ramganga (3x66MW) / Sharda (3x15MW) | 13.12.22 to 18.12.22 |
| 3 | Tech Audit of Nathpa Jhakri & Rampur Power Stations of SJVNL NJHPS (6x250MW) / Rampur (6x68.67MW) | 06.01.23 to 14.01.23 |
| 4 | Tech Audit of OHPCL 3 Power Station (1st Trip) Burla (2x49.5MW+2x32MW+1x37.5MW+2x43.65MW); Chplima (3x24MW); Rengali (5x50MW) | 22.01.23 to 01.02.23 |
| 5 | Tech Audit of Two Power Stations of NHPC Chamera-I(3x180 MW); Sewa-II(3x40MW) | 26.02.23 to 02.03.23 |
| 6 | Tech Audit of OHPCL 3 Power Station (2nd Trip) Balimela(6x60MW+2x75MW); Upper indravati (4x150MW); Uper kolab (4x80MW) | 16.3.23 to 28.3.23 |
| 7 | Consultancy work.Review of Performance of KWHEP/JSW Capacity enhancement Work | 10.10.22 to 16.10.22 |
| 8 | Consultancy work.SHEPL - Techno Commercial evaluation of of two power stations (Andhra-II and Shatul) | 06.12.22 to 08.12.22 |
| Audit of Thermal Power Station | | |
| 11 | Technical Audit and Gap Analysis for Raghunathpur TPS (2x600 mw) | December 2022 |

WHO SHOULD ATTEND?

All the programs are of interest and quite useful for the Professionals and Stakeholders from Central Govt. / State Govt. / SEBs, Power Utilities/Corporations, Regulators, Researchers/ Academicians, Manufacturers, Planners, Operators, Consultants, Electrical, Contractors, etc.

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