3 Months Online Post Graduate Diploma Course (PGDC)
CEA Certified Course
For Engineering Student Who Are Ready To Take Placement With Skill Certificate/ Working Professional (Power Sector)

Sub-Transmission & Distribution System with Automation – SCADA/DMS
Starting : 29.07.2021 Revised Date : 25.08.2021

Organized by
Central Board of Irrigation and Power
CBIP Centre of Excellence, Gurugram
(Recognized as Grade A, Category-1 Training Institute by Ministry of Power, Govt. of India)

Under the aegis of
Society of Power Engineers (India)
CBIP Building Malcha Marg, Chanakyapuri, ND
(The only Professional Body which meant for Power Engineers)

Click to Register
ABOUT THE COURSE

The Indian Power Sector is presently passing through a phase of transition of technology up-gradation in the area of Generation and Transmission. Several new Ultra Mega Thermal power Projects are in the process of installation both in Public and private sectors where advanced technology with super critical parameters supported by the state of the art Control & Instrumentation system are being adopted. Simultaneously to evacuate the power, several EHV substations and long Transmission lines would be erected with associated distribution system.

Presently India has the largest Electricity Grid in the World and world’s third largest Transmission and Distribution network. Indian Power Industry being highly capital intensive is growing at a very fast rate. The installed capacity of Indian Power industry as on September, 2019 is about 363,370 MW. To keep pace with GDP growth of our country Govt. of India has a mandate of adding about 1,18,537 MW and 1,16,900 MW during 12th & 13th five years plans.

To evacuate and utilize this huge amount of Power, additional T&D network and trained manpower would be required. Additional 16,000 CtKms and 30 Crores consumers would be added to the present T&D network. Various new technologies like Ultra High Voltage (AC/DC) transmission system, Facts, SCADA application, remote operation of Substation etc. The management of this huge network shall be a challenging task. To manage this huge transmission System and Distribution network, a huge manpower adequately trained shall be required which will be of the order of 4.00 Lacs.

Keeping all these aspects in view, CBIP has taken this initiative to launch the Post Graduate Diploma Course in Transmission & Distribution System following the syllabus of CEA Regulations 2010 for the fresh graduate engineers who would be groomed as per the requirement of Indian Power Industry. The duration of the course would be which will include the class room sessions as well as on-the-job training. The students have to attend the on-job practice sessions in various Substations. Visit to some reputed manufacturing plants shall also be arranged. To enhance the personal skills, some inputs of Management are also to be given to the students.

The course is also open for the sponsored candidates from SEBs and Power Utilities (Public & Private).

COURSE OBJECTIVES

The objective of the course is to develop groomed manpower for the power sector having high skill and confidence in operation & maintenance of transmission & distribution substations and all the electrical equipments associated with them. After completion of the course the students would be readily available as working professionals in Indian Power Sector for taking over the charge of Operation & Maintenance of T&D sectors. After completion of the course the students would acquire extensive basic and advanced knowledge of

- Operation & Maintenance of Transmission and Distribution accessories
- Necessary Safety Aspects Required in T&D
- Details of Associated Equipments
- T&D Project Management
- Process flow
- Electrical and IT application in T&D
- T&D schemes

METHODOLOGY FOR THE COURSE

- Online Sessions (Microsoft Teams)
- Sub-station Visits and Scheme Tracing in Switch yard of Substation
- On-Job Operation & Maintenance Training at different Substations
- Group Discussion session
- Projects, Seminars
- Laboratory training on transformer, relays and others electrical equipments
- Manufactures visit, maintenance plant visit etc.
FACULTY
In-house as well as Renowned/Reputed and well experienced faculty members from Power Industry/T&D equipment manufacturers/Contractors/IIT/engineering colleges will be delivering the lectures for the entire program.

ON-JOB
On-job training will be arranged at the sites of reputed Transmission & Distribution Companies.

DETAILED COURSE CURRICULUM

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Subject/Modules</th>
<th>Duration</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to Power Sector Familiarization</td>
<td>2 Day's</td>
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<td>2</td>
<td>Earthing Protection, Safety and Fire</td>
<td>3 Day's</td>
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<tr>
<td>3</td>
<td>Basic Electrical Engineering and its application with different voltage level-LV, HV, EHV &amp; UHV</td>
<td>4 Day's</td>
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<td>4</td>
<td>Introduction to Grid Sub-station / Switchyard (AIS, GIS, HIS)</td>
<td>3 Day's</td>
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<td>6</td>
<td>Design aspects of Sub-station equipment: Product Identifications mainly TRF, CB, CT &amp; PT, Selection, Technical Specifications etc as per IS/IEC/IEEE</td>
<td>3 Day's</td>
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<td>7</td>
<td>Substation Engineering and Practices with Design Calculation</td>
<td>2 Day's</td>
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<td>8</td>
<td>Different Bus-Bar Scheme under Sub-station Engineering applicable in India's Power Distribution Application</td>
<td>2 Day's</td>
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<td>9</td>
<td>Protection System of Power Distribution : LV /Consumer’s Premises in all residential premises and Switch-yard/Sub-station &amp; Transmission Line up to 765kV</td>
<td>2 Day's</td>
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<tr>
<td>10</td>
<td>Testing &amp; commissioning of Sub-station equipments : LA, CT, PT, ISO, TRF, CB, CRP mainly including Erection portion also</td>
<td>4 Day's</td>
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<tr>
<td>11</td>
<td>O&amp;M of Sub-station and its equipment</td>
<td>3 Day's</td>
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<td>12</td>
<td>Installation, Commissioning and various tests in Transformer including DGA</td>
<td>2 Day's</td>
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<tr>
<td>13</td>
<td>Load dispatch &amp; Grid Management</td>
<td>2 Day's</td>
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<td>14</td>
<td>Indian Electricity Grid Code, Regulatory Issues and tariff</td>
<td>2 Day's</td>
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<tr>
<td>15</td>
<td>Energy Metering Technology/Smart Mater/Pre-Paid Meter and Tariff</td>
<td>2 Day's</td>
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<tr>
<td>16</td>
<td>IT, SCADA , DMS &amp; GIS in Distribution System</td>
<td>5 Day's</td>
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<tr>
<td>17</td>
<td>Quality Management System/ISO 9001:2015 /EPC Process like Engineering, Procurement and Construction including Starting from Tendering to Project Management</td>
<td>5 Day's</td>
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| 18     | Live Project Demonstrations on Power Distribution (Right from LV- 220/430V , HV -11kV MV-33kV to 66kV again extended up to 132 and 220kV voltage level)  
(a) Visits to Manufacturing works/Testing Labs  
(b) Visits to Switchyard /Sub-station from 33kV to 220kV AIS for Familiarization of equipments like Transformers, Circuit Breaker, Isolator, Lightning Arrestor, Control and Relay panel, Control Room Building, Switchgear and its function with operation (On-Job) and workshop practices  
(c) Distribution System On-Job Training mainly like 66/33/11kV –Single Line Diagram, Power Flow Diagram, Operational Logic, Interconnection diagram between equipments via control cable and protecting the switch-yard by Control and Relay panel and finally practical training on Un-manned Or State-of-art technology based sub-station i.e. SCADA/DMS/Automated plant | 15 Day's   |
| 19     | Renewal Energy with Grid integration including ISTS scheme up to 765kV (Solar, Wind, Energy Storage/ Hydrogen) | 2 Days     |
| Total  | 65 Days Approxxx (200 Hrs)                                                  |            |

WHY SHOULD YOU JOIN CBIP FOR THIS COURSE?
In order to mitigate the shortage of trained manpower Govt. of India has already taken many initiatives for providing training and developing the required manpower. However, the requirement of trained manpower is so high that there is a need of training/ retraining of fresh and in service engineers and groom them by providing the required training inputs and make them readily available for deploying them in the Power Sector as per its manpower requirements.

Keeping all these aspects in view, CBIP has taken this initiative to launch the 03 Months Online Post Graduate Diploma Course in Sub-Transmission & Distribution System with Automation – SCADA/DMS modular course following the syllabus of CEA Regulations 2010 for the fresh graduate engineers who would be groomed as per the requirement of Indian Power Industry.

Hence, there is an ample scope of making a career in Operation & Maintenance of Transmission & Distribution System of
Indian Power Sector for the fresh Electrical Engineers who undertake this program.

- Operation & Maintenance
- Supply Chain Management / Procurement / Purchase
- Testing & Protection / Lab / R&D
- Quality Assurance / Control

- Design & Engineering
- Project Management / Construction / Field or Site
- Automation / SCADA / DMS

LIVE PLACEMENT DETAILS 2021

List of Organizations where Placement Assistance & Interview Conducting are as follows:
- Tata Power Distribution Company / ERDA / Taurus Powertronics (14 Engineers including 10 Internship placed) / Noida Power / Skipper Electricals SEIL / Adani Transmission / Toshiba / Manav Energy / Lumino Industry (Kolkata) / Tata Project etc.

FEEDBACK FROM PGDC CERTIFIED ENGINEERS

**Dear Sir,**

Greetings of the day.

Hil Myself Rikh Ray Chaudhuri. I was the PGDC student of the Central Board of Irrigation and Power for the session of 2020-21. I have successfully completed the course under the guidance of Mr. Arindam Borthakur. After joining CEBP, I was working as a Trainee Engineer in its Chowkai Unit. It was the month of September 2020, when the COVID-19 pandemic came into the picture in India, and the country went under lockdown. This was a turning point in my life. I got the opportunity to work in CEBP, which was like a dream come true.

I was very happy and grateful to CEBP for giving me such an opportunity. I have learned a lot of things that I never thought of in my graduation. That's why CEBP is one of the best places to work. I am using my knowledge and skills in the best possible way.

I hope you will continue to provide such opportunities to the students in the future.

With best wishes,

Rikh Ray Chaudhuri

*Date:* 08.09.2021

**Thanks and Regards,**

Rikh Ray Chaudhuri

Project Associate

E:Energy Analytics Lab

ITT, Kanpur

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I am Souvik Goswami, I have successfully completed PGDC in sub Transmission and Distribution system under CEBP. As a final-year student, I am glad to share my experience with all the students who joined CEBP.

I have learned many things like substation parameters, substation design, EMT transmission line, EHV transmission line, EHV project design, and many more. I have completed 1 month on-site training in Gorapura. I visited 69KV GIS substation, 220/11KV substation. I visited ERDA lab.

I am glad to share my experience with all the students who joined CEBP. I have got placed as a Trainee Engineer. I am happy to get officer letter in my career. I heartily thank CEBP for giving me a platform.

I would like to encourage all the new engineers who are very much passionate about power engineering and want to pursue their careers in the electrical sector should join CEBP for learning as well as getting practical exposure for their bright careers.

Best wishes for all the CEBP staff for their endless support.

With best wishes,

Souvik Goswami

Engineer (Trainee)

Powertronics Pvt. Ltd.

Sent from ReddittmailNG on Android
STRENGTHS OF CBIP

• A 92 years old establishment into dissemination of knowledge in Power, Renewable and water resources sectors.

• Almost all reputed utilities of Power, Irrigation and Renewable sectors of the country are the institutional members of CBIP

• 3000 senior officers of the level of Chief engineer and above from these sectors are the members.

• Has a great networking and close relations with all reputed utilities of these sectors CBIP is located in most posh and central place of the capital city of the country i.e. Chanakyapuri, New Delhi.

• Has a strong base of the very senior officers with deep experience of various disciplines Power, Renewable and Water Resources sectors.

• Has state of the art infrastructure facilities like digitized library, dining hall, classrooms, conference hall etc. well equipped with audio visual aids and Air conditioning system.

• Publishes very strong technical publications on very thrust areas in above three sectors.

• Has the secretariat of at least 10 international organizations and the Secretary CBIP is the secretary or the member secretary of their India chapters.

• A very strong Board with Chairperson, CWC as the President (Shri S.K. Haldar), CEA as the Sr. Vice President (Shri Dinesh Chandra), Shri Anil Sardana, MD & CEO Adani Transmission Ltd. & Adani Power Ltd, Shri Abhay Kumar Singh CMD NHPC Ltd, Shri Vivek Kapadia Secretary, Govt. of Gujrat & Director, Sardar Sarovar Project, Shri Manoj Mathur Director (Solar) Soler Energy Corporation of India (SECI).

• CBIP has also signed a Memorandum of Understanding (MoU) with Indian Electrical and Electronics Manufacturers Association (IEEMA) which has a network of around 650 member organizations from public, joint & private sectors including good no. of organizations associated with Transmission & Distribution systems for collaborative ventures/ efforts for enhancement of quality service through various activities viz., joint assignments, training programs, conferences, seminars, consultancy, R&D activities, joint studies and surveys, knowledge sharing and action plans identified by CBIP and/or IEEMA, SIEMENS, ABB, L&T/ SCHNEIDER, ERDA, Tata Power etc.

• Power Sector Skill Council (PSSC) is housed in CBIP premises at Malcha Marg, Chankyapuri, New Delhi, and CBIP is providing the secretariat support to PSSC Chairman, CEA is the president and Shri A.K Dinkar, Secretary, CBIP is Secretary of PSSC.

• Most of the organizations (Govt. sector & Private) of Indian Power sector involved in Generation, Transmission and Distribution of Power are the members of CBIP.

• CBIP has a strong team of senior training officers, having in-depth knowledge of conducting various long term training programs related to Power sector.

DIGITAL RECOGNITION/CERTIFICATION OF THE COURSE

Certificate will be issued by Central Board of irrigation & Power (CBIP) which is a reputed autonomous body in the field of Power & Water Resources having liaison with various Govt./Semi-Govt./Pioneer-Pvt. Sector Organizations including Central Electricity Authority, NTPC, NHPC, Powergrid etc.CBIP is also a recognized training partner of National Skill Development Corporation (NSDC), Power Sector Skill Council (PSSC) and Skill Council for Green Jobs (SCGJ)

CBIP institute has been recognized as Grade – A Category-I training Institute by Ministry of Power, Govt. of India under CEA Regulations - 2010. The syllabus of the course is as per the mandatory Training requirements specified in Central Electricity Authority regulations-2010.

CBIP is also a recognized training partner of National Skill Development Corporation (NSDC), Power Sector Skill Council (PSSC) and Skill Council for Green Jobs (SCGJ)

ELIGIBILITY

• B.E/B Tech with having min exp in Power Distribution with a Minimum Cut-off marks of 70% marks only for passed out Students.

• For Working Professionals desired Academic Qualifications are: BE / BTech / Diploma in Electrical with Min 2 Years Exp.

• One year experience in the relevant field for sponsored candidates.

Those appearing in their final year examination can also apply. However, they must submit their degree/provisional degree at the time of counseling/start of the course. The candidates shall also have to submit medical fitness certificate at the time of admission with no color blindness

SELECTION CRITERIA FOR ADMISSION

The students will be shortlisted based on the merit of the marks obtained by the candidates in Class 10th, 12th & Engineering degree and eligible candidates will intimated through the E-mail seperately to all shortlisted candidates. Admission shall be subject to strict verification of all the original testimonials/documents and deposing of the required fees (given in the brochure).
COURSE CHARGES

A. Admission Fee: 03 Months
(a) For Passed out Engineering Student: Rs. 40,000/- (one time payment)
(b) For Company Sponsored working professionals with 5 Participants in a Batch (Rs. 50,000) otherwise self sponsored/single participant with Rs. 40,000 (one time payment)

B. Class Timing
(a) Half Day: (03:00 - 04:00) Hrs Daily (Monday - Friday) Through Microsoft Team (Virtual Mode) depends on the final results of selected list of participants, for working professionals weekend programs / evening.

PAYMENT PROCESS
All Selected Candidates may do the Payment as per Following details:

Mode of Payment
(a) By Cheque  (b) Demand Draft/DD  
(c) Net Banking Through NEFT/RTGS/IMPS in favor of “Central Board of Irrigation and Power”, payable at Gurgaon
Beneficiary Name Central Board of Irrigation & Power
PAN No. AAAJC0237F
GST No. 06AAAJC0237FiZW
Complete Bank details, Saving Bank Account No.: 236701000000922
Branch /RTG/NEFT IFSC: IOBA0002367
Branch Code: 2367

REFUND
Fee once deposited will not be refunded back. In case a selected candidate wishes to withdraw from the course for any reason, no part of course fee will be refunded except the security deposit.

HOW TO APPLY
Application may be submitted through online through CBIP Website.
Points to be noted:
(a) All the future notifications / information will be available on CBIP website. The candidates are advised to be regularly in touch with the website.
(b) Please Attach self attested scan copies of proof of Date of birth, certificates / mark sheets of 10th / 12th / Degree issued by Registrar/controller of the concerned university to send neeraj@cbip.org / manasbandyopadhay@cbip.org.

ADDRESS FOR CORRESPONDENCE
Shri A. K. Dinkar, Secretary, CBIP
Nodal Officers:
Shri Manas Bandyopadhyay, Advisor, M: 9871303367 E-mail: Manasbandyopadhyay@cbip.org

Central Board of Irrigation & Power
Phone: 0124 4035267/4380272; E-mail: training@cbip.org
CBIP Centre of Excellence, Plot No. 21, Sector-32, Gurgaon, Haryana

IMPORTANT DATES

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<tr>
<th>Sl. No.</th>
<th>Description</th>
<th>Dates</th>
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<tbody>
<tr>
<td>1</td>
<td>Last Date of Online Application</td>
<td>24.08.2021</td>
</tr>
<tr>
<td>2</td>
<td>Last Date of Receiving Scan Copy Through E-mail</td>
<td>24.08.2021</td>
</tr>
<tr>
<td>3</td>
<td>Starting of Course / Orientation Program</td>
<td>25.08.2021</td>
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HOW TO REACH CBIP
CBIP is located at Malcha Marg, adjacent to Malcha Market, Chanakypuri, New Delhi, which is around 9 km from New Delhi Railway Station and around 15 km from Delhi Domestic Airport.

HOW TO REACH CBIP CENTRE OF EXCELLENCE, PLOT NO-21, SECTOR-32, GURGAON, (TRAINING INSTITUTE)
Gurgaon, is the second largest city in the Indian state of Haryana and is a part of the National Capital Region (NCR). It is about 18 Kilometers from IGI Airport, New Delhi. Gurgaon is well connected to Delhi via an expressway (NH8 Highway) and Delhi Metro.