

3/6 Months Post Graduate Diploma Course (PGDC)

in

Transmission & Distribution System including Automation (SCADA/DMS)

Starting : 30.03.2020



CENTRAL BOARD OF IRRIGATION AND POWER

(More than 9 decades of Service to the Nation in Power Sector)

CBIP CENTRE OF EXCELLENCE

Website www.cbipcoe.org Email: training@cbip.org

Plot No-21, Sector-32, Gurgaon, Haryana

(Recognized as Grade A category-1 training Institute for providing training in the field of Hydro, Thermal, Transmission, Distribution and Power management Ministry of Power, Government of India)

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 363370 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 163000 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 03/06 months 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 03/06 Months 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

- Classroom Lecture Sessions
- 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.

Candidates during Site visit



DETAILED COURSE CURRICULUM

Sl. No.	Subject/Modules-first semester	Duration
1	Introduction to Power Sector Familiarization	½ / 1 Week
2	Safety	½ / 1 Week
3	Basic Electrical Engineering Fundamentals	1 / 2 Weeks
4	Introduction to Sub-station / Switchyard	½ / 1 Week
5	Design aspects of Sub-station equipment	1/2 Weeks
6	Transmission line Engineering & EHV Cables	½ / 1 Week
7	HVDC Transmission	NA / 1 Week
8	Erection & commissioning of Sub-station & Transmission Line	½ / 1 Week
9	Protection of Sub-station & Transmission Line	½ / 1 Week
10	O& M of Sub-station and its equipment	½ / 1 Week
11	Sub-station on-job operation and Workshop Practice	½ / 1 Week
12	Load dispatch & Grid Management	½ / 1 Week
13	Indian Electricity Grid Code, Regulatory Issues and tariff	½ / 1 Week
14	Transmission line on-job operation & Maintenance	NA/ 1 Week
15	Visits to Manufacturing works / Testing labs etc.	1/2 Weeks
16	Distribution System Engineering & Energy Metering	1/2 Weeks
17	Distribution Lines and Cables	½ / 1 Week
18	IT, SCADA, DMS & GIS in Distribution System	1/2 Weeks
19	Distribution System on-job training	½ / 1 Week
20	General Management /Material Management/Personal Management	1 Week
21	Project & Final Appraisal	1 Week
	Total	13/26 Weeks

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 **03/06 Months Post Graduate Diploma Course in Transmission & Distribution System including Automation (SCADA)** 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.

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, Chairman, CEA as the vice President, ED Tata Power as the Vice President (Power) and CMD, IREDA as Vice President (RE).
- 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.
- 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 V.K. Kanjlia, 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.

RECOGNISION/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 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

- Bachelor of Engineering or equivalent in Electrical Engineering and Electrical & Electronics Engineering (EEE) with minimum 60% marks
- 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 with Common Entrance Test marks as cumulative, merit wise list of the eligible candidates will be declared in CBIP web site. Admission shall be subject to strict verification of all the original testimonials/documents and depositing of the required fees (given in the brochure).

COURSE CHARGES

A. Admission Fee: 03 Months

- For Non-Sponsored candidates: Rs. 50,000/- (to be paid in two installment Rs. 30,000 and Rs. 20,000 respectively)
- For sponsored candidates: Rs. 1,00,000/- may be paid in two equal installments.

B. Admission Fee: 06 Months

- For Non-Sponsored candidates: Rs. 1,00,000/- (to be paid in two installment Rs. 60,000 and Rs. 40,000 respectively)
- For sponsored candidates: Rs. 1,50,000/- may be paid in two equal installments.

- **Working Lunch & Two Times Tea Charges at Institute** : Rs. 5,000/10,000 (to be paid at the time of joining the course for 3 months/6 months)
- **Caution Money** : Rs. 5000/- as security deposit which is refundable to be deposited by the student at the time of joining.
- **Placement Charges** : Rs. 15,000/- to be paid after placement in organizations.
- **Charges for Lodging/Boarding** : CBIP has tied-up with reputed accommodation providers. Accommodation will be made for lodging, boarding (twin/triple) on nominal charge basis. The charges for the same will be intimated at the time of joining the course.

SPONSORED CANDIDATES

The Candidates who are sponsored from any organization have to enclose a sponsorship certificate from their respective organizations in the format given in the CBIP web site.

LOAN FACILITY

The candidates who get confirmed admission and wish to avail loan from a Bank/Financial institute may also take a certificate from CBIP for availing the same.

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 .The downloaded hard copy of the application form along-with the demand draft/multicity cheque of Rs. 500/- in favour of "**Central Board of Irrigation and Power**" payable at New Delhi should reach the Director, CBIP Centre of Excellence, (address given below)

Points to be noted:

- All the future notifications/ information will be available on CBIP website. The candidates are advised to be regularly in touch with the website.
- Please Attach self attested copies of proof of Date of birth, certificates / mark sheets of 10th / 12th / Degree issued by Registrar/controller of the concerned university.
- Application fee is non refundable.
- Candidates are advised to book their tickets in advance to avoid any last moment inconvenience.

ADDRESS FOR COMMUNICATION

The Director (E)

CBIP Centre of Excellence, Plot No-21, Sector-32, Gurgaon, Haryana-121009

Tel No: 0124- 4380272, 4035267

09818737480 (Mr. S.K. Ghosh) / 09871718218 (Mr. Jaideep)/ 9871303367 (Mr. Manas Banerjee)

E-mail: ghoshsk@cbip.org / jaideep@cbip.org / manasbandyopadhyay@cbip.org

IMPORTANT DATES

Sl. No.	Description	Dates
1	Last Date of Online Application	30.03.2020
2	Last Date of Receiving Hard Copy Through Post	30.03.2020
3	Starting of Course / Orientation Program	30.03.2020

HOW TO REACH CBIP

CBIP is located at Malcha Marg, adjacent to Malcha Market, Chanakypuri, New Delhi, which is around 15KM from New Delhi Railway Station and around 18KM 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 15 Kilometers from IGI Airport, New Delhi. Gurgaon is well connected to Delhi via an expressway (NH8 highway) and Delhi Metro.



Group Photo of the Trainees undergoing Training at CBIP Gurgaon