Training Calendar 2013-14

ISO 9001:2008

Central Board of Irrigation & Power

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MESSAGE FROM SECRETARY

In view of the rapid technological advances as well as the social transformation taking place in our country, the need for development of human resources through their training – retraining has acquired critical importance so as to have efficient and sustainable development of infrastructure sector, including Power, Water Resources, Renewable Energy Sectors.

Due to induction of more sophisticated technology and automation in all these sectors the manpower per unit of product produced is having a declining trend and the reason for importance of each individual and his/her further development to cope up with the advanced technologies and manage the change is greater.

To service this competitive market, organizations ought to challenge the existing core beliefs, processes and methodologies and focus on development of their personnel through programs giving supplement of applied engineering knowledge, case studies, hands on training, site visits etc. in the concerned disciplines.

Keeping all these aspects in mind, CBIP has planned and designed a few long-term and short-term training programs/workshops/seminars for the year 2013-14 including Geotechnical Challenges in Infrastructure Projects, CIGRE India conference 2013 on Technology and Innovations for the Development of Power System, Dam India-2013 Latest Technology in Planning Design and Construction of Dams & GBM of INCOLD, Best Practices in Operation, Maintenance & Performance Improvement of Cooling Towers and Circulating Water System etc. to cover a wide spectrum of current and emerging requirements as per details given in the training calendar.

I wish the Training and Academic calendar 2013-14 will be of immense use by all the organizations and participants from various organizations.

Any suggestion for improvement and addition of new programs are most welcome.

V.K. Kanjlia
Secretary
Central Board of Irrigation & Power

CALENDAR FOR SHORT TERM PROGRAM 2013-14

S. NO	NAME OF PROGRAM	DATES	VENUE	PAGE NO
1.	International Colloquium on UHV in Association with CIGRE	3 – 4 April, 2013	Pragati Maidan, New Delhi	12
2.	Seminar on "Geotechnical Challenges in Infrastructure Projects"	25 - 26 April 2013	CBIP, New Delhi	12
3.	Coal Characteristics, Mill Performance & Combustion Optimization	29 April – 1 May, 2013	CBIP, New Delhi	13
4.	Conference on O&M and Life Cycle Management of Substation	16 - 17 May 2013	CBIP, New Delhi	13
5.	"Dam India-2013" Latest Technology in Planning Design and Construction of Dams	22 - 23 May, 2013	India Habitat Center, New Delhi	14
6.	Workshop on Refurbishment, Modernization & Up Rating of Hydro Plant	30 - 31 May 2013	Dehradun	14
7.	Seminar on Application of Geosynthetics in Infrastructure Projects	20 - 21 June 2013	CBIP, New Delhi	15
8.	Traning Program on Power System Protection	24 - 26 June, 2013	CBIP, New Delhi	15
9.	Conference on Generation From Renewable Sources and Grid Connectivity	27 - 28 June 2013	CBIP, New Delhi	15
10.	Rock Mechanics India-2013 "Present Technology and Future Challenges" & Workshop on "Open Pit Mining"	3 - 5 July 2013	CBIP, New Delhi	16
11.	International Conference on Innovations & Best Practices in Transmission Systems	11 - 12 July 2013	India Habitat Center, New Delhi	16
12.	Best Practices in Operation, Maintenance & Performance Improvement of Cooling Towers and Circulating Water System	17 – 19 July,2013	CBIP, New Delhi	17
13.	"Hydro India" 2013 – Issues and Challenges in Hydropower Sector in India	25 - 26 July 2013	CBIP, New Delhi	17
14.	Advances in Super Critical Technology	29 – 31 July, 2013	CBIP, New Delhi	17
15.	Renewable Energy & Distributed Generation	21 – 23 Aug.,2013	CBIP, New Delhi	18
16.	Preparatory Course for Energy Auditors / Energy Managers	09 – 13 Sept., 2013	CBIP, New Delhi	18
17.	Power Engineers Conference 2013 on Earthing Systems	16 - 17 Sept. 2013	CBIP, New Delhi	19
18.	Turbine Governing System	18 -20 Sept, 2013	CBIP, New Delhi	19
19.	Workshop on Tunnel Design and Construction- Issue and Challenges	24 – 25 Sept., 2013	CBIP, New Delhi	20
20.	EHV Switchyard Equipment & Substation Automation	26 – 27 Sept., 2013	CBIP, New Delhi	20
21.	Workshop on Rotating Machine	21 - 22 Oct., 2013	CBIP, New Delhi	21
22.	International Seminar "Geosynthetics India - 13" and An Introductory Course on Geosynthetics	23 - 25 Oct. 2013	CBIP, New Delhi	21
23.	Seminar on Roller Compacted Concrete Dams- Innovative Approach in Dam Construction	7-9 November 2013	Thimphu, Bhutan	22
24.	New Technological Advancements in Power Plant Chemistry	11 – 13 Nov., 2013	CBIP, New Delhi	22
25.	CIGRE Tutorial & Colloquium on SMART GRID	13 - 15 Nov. 2013	Infosys Campus Mysore, Karnataka.	23

26.	Workshop on Coal Handling Plant & Technological Advancement in CHP Equipments	26 – 28 Nov., 2013	CBIP, New Delhi	23
27.	Water India - 2013 : "Reforms in Water Sector Implications for sustained Food Security"	11 – 13 Dec., 2013	To be Decided	24
28.	Ash Dyke Management	18 – 20 Dec., 2013	CBIP, New Delhi	24
29.	National Conclave on Accelerated Development of Power Sector in North Eastern Region & Sikkim	19 - 20 Dec. 2013	Sikkim / Guwahati	25
30.	Tutorial and International Conference on Power System Protection and Automation	14 - 17 Jan 2014	CBIP, New Delhi	25
31.	Insight into Environment Management, Climate Change & Carbon Mitigation	22 - 24 Jan., 2014	CBIP, New Delhi	26
32.	Workshop on Canal Automation	6 - 7 Feb., 2014	CBIP, New Delhi	26
33.	Workshop on Sustainable Ground Water Management	13 -14 Feb., 2014	CBIP, New Delhi	27
34.	Root Cause Analysis of Electrical Equipment Failures	17 – 19 Feb.,2014	CBIP, New Delhi	27
35.	Afro-Asia Pacific Power 2013 – Conference on Hydro Power Development in Nepal	20 - 21 Feb 2014	Nepal	27
36.	International Conference on Advanced Metering Infrastructure	17 - 18 Mar. 2014	CBIP, New Delhi	28
37.	Boiler Performance Optimization	24 – 26 Mar., 2014	CBIP, New Delhi	28

TENTATIVE COURSE FEE:

1. @ Rs. 4000/-per day for Programs at S. No 3, 8, 12, 14, 15, 16, 18, 20, 23, 24, 26, 28, 31, 34, 37
2. @ Rs. 5000/- per day for Programs at S. No ,2 ,4,5, 7, 8,9, 10,11, 13, 17, 19, 21, 22, 25, 30, 32, 33, 36
3. @ Rs. 6000/- per day for Programs at S.No.1, 6, 23, 26, 29, 35

+Service Tax @ 12.36%

*10% Discount for CBIP /ISRM/INCOLD/TAI members

RESIDENTIAL FACILITY

Residential facility can be organized on request and subject to availability & on chargeable basis.

E-Payments

The course fee can be made through e-payments for which the bank details are as follows:

Service Tax Registration No. : AAAJC0237FST001

Income Tax:

PAN No. : AAAJC0237F

TAN No. : DELC08272F

BANK NAME : HDFC BANK

BRANCH ADDRESS : G-3/4, Surya Kiran, Building, Kasturba Gandhi Marg, New Delhi - 110001

TYPE OF ACCOUNT : Saving Account

A/C No : 00031110004411

RTGS NEFT IFSC CODE : HDFC0000003

MICR CODE : 110240001

SWIFT CODE : HDFCINBBDEL

GLIMPSES OF CBIP

Central Board of Irrigation & Power was set up by the Government of India for development of irrigation system of our country in 1927. It is a knowledge management institution committed towards the development of Irrigation, Power & Renewable Energy Sectors of the country through its Human Resources Development. It is a premier institution and has been rendering dedicated services to the professional organizations, engineers and individuals in the country and abroad for the last 86 years. The main objective of CBIP is to disseminate technical knowledge through various modes e.g., organizing training programs, conferences, seminars etc. and publication of journals, manuals, technical reports, guidelines, research reports etc. It also provides consultancy in various areas of these sectors. CBIP has published over 1000 precious publications for the Development of Power and Water Resources Sectors. Presently over 155 organizations from Central Govt., State Govt., PSUs, and Private Organizations are the members of CBIP, besides over 3000 general body members of the rank of equivalent to Chief Engineer and above.

MAIN OBJECTIVES OF CBIP

- Management of technical information and dissemination of the same through various modes, e.g. training programs, publication of journals, manuals, technical reports, guidelines, organizing seminars and conferences and recognition of technical excellence through awards collection, compilation and analysis of engineering and commercial data at the national level in water resources sector, power sector and renewal energy sector.
- To provide consultancy services and training.
- To provide research and professional excellence.
- To provide linkages to Indian Engineers, Managers and Scientists with their counterparts in other countries and with international organizations.
- To establish a technical database, technological development and to provide information services to the professionals.
- Technological forecasting.

ACTIVITIES / SERVICES

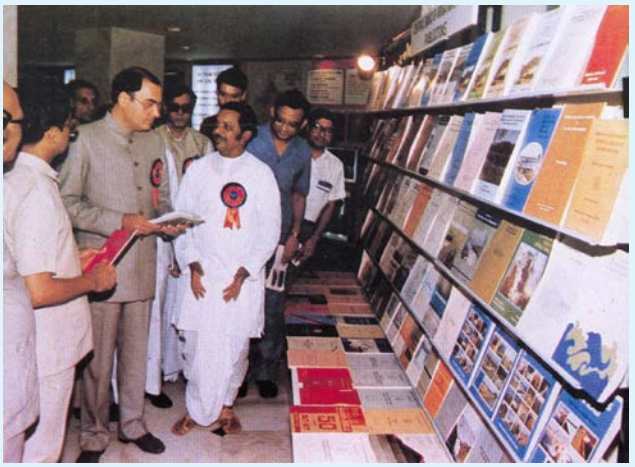
Foray into Research & Consultancy

- 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 practicing 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 Plasticulture Development (RSPD). Funds for Research Schemes under RSRVP and RSFC were provided by Ministry of Water Resources and RSOP by Ministry of Power.
- The results of the research conducted at the various Water Resources and Power Research Stations in the country were discussed in Annual Research and Development Sessions held regularly.

Hon'ble Union Minister of Power Shri Sushilkumar Shinde inaugurating the World Tunnel Congress at Agra

CBIP PUBLICATIONS

- The Board publishes Technical Literature and Journals including manuals, guidelines, specifications, etc., (related to the fields of Water Resources, Power Sector, Rock Mechanics, Tunneling and Underground works, Large Dams, Geo Synthetics etc.).
- Till date about 1000 technical publications have been brought out by CBIP.
- CBIP has started publishing "monthly" issue of Water and Energy International Journal, instead of Quarterly issues since April 2010. The new journal covers special features on development and management of the activities in power, water resources and renewable energy sectors.
- Indian Chapter of various International Societies having Secretariat in CBIP have started bringing out half-yearly journals also namely CIGRE, India Journal (The International Council on Large Electric Systems), Journal of the International Association on Electricity Generation, Transmission and Distribution (AARO), Power Engineer Journal - The Society of Power Engineers (India), IASH Journal (The International Association for Small Hydro), INCOLD Journal (Technical Journal of Indian Committee on Large Dams), TAI Journal (Technical Journal of Indian Chapter of International Tunnelling and Underground Space Association Tunnelling Association of India), ISRM (India) Journal (Technical Journal of Indian National Group of ISRM), Indian Journal of Geosynthetics and Ground Improvement (Technical Journal of Indian Chapter of International Geosynthetics Society), IWRA (India) Journal (Technical Journal of Indian Geographical Committee of IWRA), NDC-WWC Technical Journal (Journal of New Delhi Centre of WWC)
- CBIP has brought out Special Issues of Water & Energy International of some of the important projects such as 1000 MW Tehri HEP, 1000 MW Indira Sagar HEP, 1480 MW Bhakra Nangal Project, 300 MW Chamera II HEP, 520 MW Omkareshwar HEP and 1500 MW Nathpa Jhakri HEP.
- Old publications/Manuals are also reviewed and updated periodically.



Hon'ble Late Shri Rajiv Gandhi the then Prime Minister of India visiting the CBIP Pavallion

NATIONAL / INTERNATIONAL CONFERENCES / CONCLAVES

The CBIP has been instrumental in disseminating knowledge through National and International conferences in India. Some of the important events organized by CBIP are:

- Platinum Jubilee year of CBIP was celebrated on completion of its 75 years in 2002.
- CIGRE Administrative Council Meeting was held at Bangalore in 2005.
- 12th World Water Congress of IWRA was organized at New Delhi in 2005.
- Two Decades of Geosynthetics in India was celebrated at New Delhi during 2006.
- International Conclave on Key Inputs for Accelerated Development of Indian Power Sector for 11th Plan & Beyond on 4th – 5th July 2007, New Delhi.

Inauguration of India Water Week 2012 by Hon'ble Prime Minister of India Dr. Manmohan Singh on 10th April 2012 at Vigyan Bhawan, New Delhi.

- International Conclave on Contract Management for Accelerated Development of Indian Hydropower Projects on 16th November, 2007, New Delhi.
- National Conclave on Accelerated Development of Power Sector in the North Eastern Region and Sikkim on 4th – 5th April 2008, Guwahati.
- International Conclave on Key Inputs for Accelerated Development of Indian Power Sector for 12th Plan & Beyond on 18th – 19th August, 2009, New Delhi.
- International Conclave on Model Contract Document for Accelerated Hydro Power Development in October 2009 at New Delhi.
- INCOLD Congress in 1951, 1978 and international symposium in 1998.
- World Tunnel Congress held at Agra in September 2008. Her Excellency the President of India Smt. Pratibha Devisingh Patil addressed the participants (through recorded video) and appreciated the efforts of CBIP.
- 60th International Executive Council Meeting of ICID and 5th Asian Regional Conference on Improvement in Efficiency of Irrigation Projects through Technology Upgradation and Better Operation & Maintenance held at New Delhi during 6th – 11th December 2009, was inaugurated by Dr. Manmohan Singh, Hon'ble Prime Minister of India.
- Seminar on Solar Power Development in India and Related Techniques was inaugurated by Dr. Farooq Abdullah, Hon'ble Union Minister for MNRE. on 9th February 2010
- ISRM International Symposium 2010, 26th Asian Rock Mechanics Symposium held in New Delhi during 23rd – 27th October, 2010.
- International Conference on Accelerated Development of Hydropower in Bhutan – Opportunities and Challenges was held at Thimpu, Bhutan during 16th - 18th November 2010, which was inaugurated by Hon'ble Prime Minister of Bhutan, H.E. Lyonchhoen Jigmi Y Thinley.
- Tunneling Asia 2012 – Need for Accelerated Underground Construction – Issues & Challenges
- National Conference on Solar Power Development in India August, 2012
- National Conference on Gas Insulated Substations in February, 2013.

INTERACTION AND NETWORKING WITH INTERNATIONAL/NATIONAL ORGANIZATIONS

The Board functions as the Indian National Group/ Chapter for the following international organizations.

- International Commission on Large Dams (ICOLD)
- International Society for Rock Mechanics (ISRM)
- International Tunnelling and Underground Space Association (ITA)
- International Water Resources Association (IWRA)
- World Water Council (WWC)
- International Geosynthetics Society (IGS)
- International Council on Large Voltage Electric Systems (CIGRE)
- International Conference for Electricity Distribution (CIRED)
- Indian Hydro Power Association (INHA)

Hydro Power Station

In addition, International Association for Small Hydro (IASH), International Association on Electricity Generation, Transmission & Distribution (Afro-Asian Region) (AARO) and Society of Power Engineers function from CBIP Office.

NEW INITIATIVES

Training Programs at CBIP

In view of the massive requirements of trained manpower in Indian Power Sector, CBIP has taken initiative to start long term industry oriented training programs as per the syllabus of Indian Electricity Regulations for the Engineering Graduates and short duration programs for the experienced executives of power sector on important topics and also as per the need of the power sector organizations/ clients.

RECOGNITION OF CBIP INSTITUTE FROM MINISTRY OF POWER, GOVT. OF INDIA

CBIP has been recognized as category-1 training institute for providing training in the field of Hydro, Thermal, Transmission and Distribution and Power Management etc. by Ministry of Power, Govt. of India. The long term courses offered by CBIP are recognized career linked courses.

POWER SECTOR SKILL COUNCIL (PSSC)

CBIP is involved in preparing a proposal for setting up of Power Sector Skill Council for the power professionals with Government of India guidelines aiming to create workforce equipped with trained skills, knowledge and internationally recognized qualifications to gain access to decent employment and ensure India's competitiveness in dynamic global labour market. To increase the productivity in organized and unorganized sector to enable youth, women and differently able and other disadvantaged sections as beneficiary of the Skill Development Initiative. Aim is to develop 500 million skilled persons by 2022. Power Sector Skill Council shall be powered by Central Electricity Authority (CEA) on behalf of Ministry of Power, Ministry of New & Renewable Energy (MNRE) and Indian Electrical and Electronics Manufacturers' Association (IEEMA) and supported by various PSUs, associations, organizations and industry players in the power sector, renewable energy sector and power equipment manufacturing sector.

Accordingly Power Sector Skill Council will develop skill, competency standards and qualification as well as standardize the affiliation & accreditation process. The Power Sector Skill Council shall be housed in CBIP building.

INHOUSE FACULTIES

CBIP has a strong base of highly qualified and experienced in-house faculties in the area of Water Resources, Operation & Maintenance of Power Plants and Transmission & Distribution System. Apart from in-house faculties CBIP draws specialized faculties from various external organizations like IIT's, NTPC, Power Grid, CEA to support various training programs and conferences.

LONG TERM PROGRAMS

The institute has been conducting PGDC in Thermal (52 weeks) and PGDC in T&D (26 weeks) Program for fresh pass-out engineers in the area of electrical, mechanical, electronics and control & instrumentation. The curriculum being followed is as per the Indian Electricity Rules.

SHORT TERM PROGRAMS

CBIP has planned short term programs during April, 2013 – March, 2014 to enhance the technical skills of working executives and to give them an insight into the latest technological advances required by the practicing engineering in their day to day working. These programs will be highly beneficial to the working executives in the area of their operation.

TAILOR MADE / SPONSORED PROGRAMS

CBIP also organizes tailor made programs as per the requirements of the organizations in the following area of Power Plant

- Operation & Maintenance Aspects of Power Plants
- Hydro Power Generation
- Transmission & Distribution of Power
- Power Management

These programs will be useful for the organizations to train their employees in the areas of common concern for the organizations.

MBA PROGRAM IN POWER GENERATION

CBIP has also plans to start shortly a two years Full Time MBA Program in Power Management at its new training complex at Gurgaon. This will be the first batch and the candidates will be short listed based on CAT Score and will be called for Group Discussion & Interview before the final selection for joining the program.

INTERNATIONAL TRAINING

CBIP is equipped with state-of-the-art infrastructural facilities to meet the specific requirements of training for foreign nationals. CBIP offers tailor-made/customized need based programs to suit the organization's objectives. Typical training modules have been worked out on Power Plant Management, Combined Cycle Gas Power Plants, Transmission & Distribution System to suit the requirement of the engineers from various countries.

CBIP has trained Foreign Nationals from Zimbabwe, Iraq, Oman, Bhutan, Bangladesh, Sudan, Ethiopia, Syria, Malaysia, Philippines, Cambodia, Myanmar, Zambia, Mexico, Nigeria, Kenya, Afghanistan, China etc through various international training programs/seminars which were widely acclaimed by the participants and reflected through their encouraging feedback.

CBIP CENTRE OF EXCELLENCE AT GURGAON

CBIP is coming up with its CBIP CENTRE OF EXCELLENCE having multi storied complex of six floors and two basements with covered area of 60,000 sq. feet at Sector 32 in Gurgaon which will be operational by July, 2013. This new complex will be equipped with the state-of-the-art Lecture Halls, Conference Rooms, Syndicate Rooms, Faculty Rooms and other instructional facilities apart from the Control & Instrumentation Laboratory, Thermal Laboratory, Hydro Laboratory, Transmission & Distribution Laboratory and Computer Laboratory with dedicated networking and a Learning Resource Center. A well equipped library with digitized version of books and journals will be used as open learning centre. CBIP is planning to start following long term placement linked training programs shortly at its new complex at Gurgaon:

- 52 weeks Post Graduate Diploma in Thermal Power Plant Engineering from August, 2013.
- 26 weeks Post Graduate Diploma in Transmission & Distribution from August, 2013
- 26 weeks Post Diploma in Civil Construction from August, 2013
- 26 weeks Post Diploma in Distribution from July, 2013

LONG TERM PROGRAMS

1. POST GRADUATE DIPLOMA COURSE IN THERMAL POWER PLANT ENGINEERING

The duration of the course is 52 weeks. The objective of the course is to develop groomed manpower for the power sector having high skills and confidence in running a Power Plant. This course covers the complete syllabus under the provision of Indian Electricity Act Regulations which include the class room sessions as well as on-the-job training. The students are provided on-the-job practice sessions in various Thermal Power Plants and visit some reputed manufacturing plants. To enhance the personal and managerial skills, Managerial Inputs are also given to the students. After completion of the course the students would be readily available for the Indian Power Sector for taking over the charge of Operation & Maintenance of Power Plant Equipments. The course is also open for the sponsored candidates from Power Utilities. The broad course profile semester wise is as follows:

1ST SEMESTER

Description / Program Profile	Duration
Power Plant Introduction and Industrial Safety	2 week
Basic Engineering Fundamentals	2 weeks
Power Plant Familiarization	6 weeks
Power Plant Briefing and Scheme Tracing	2 weeks
Power Plant Operation	2 weeks
Rotational On-Job (Operation)	4 weeks
Erection & Commissioning	1 week
Construction Management	1 week
Power Plant Performance & Efficiency Calculations	1 week
Power Plant Chemistry, Metallurgy, NDT & Welding	1 week
Gas Turbine & Combined Cycle Power Plant	1 week
Advanced Steam Generation Technologies/Supercritical	1 week
Management & Personality Development	1 week
Aptitude Test	
Mid-term Appraisal	1 week
SUB-TOTAL	**26 weeks**

2ND SEMESTER

Power Plant Protection	1 week
Load Dispatch	1 week
Energy Audit	1 week
Maintenance Management	1 week
Renewable Energy Sources & Hydro Power Plants	1 week
Maintenance Practices	4 week
Design Aspects of Power Plant Equipment	1 week
Power Reforms, Regulations and Tariff	1 week
Control & Instrumentation	2 week
IT Application in Power Sector & GIS	½ week
Environment Management	½ week
Rotational On-Job (Maintenance)	6 weeks
Training & Visit to Manufacturing Works	2 weeks
Simulator Training	2 weeks
Project	1 week
Final Appraisal	1 week
Sub-Total	26weeks
GRAND TOTAL	**52 Weeks**

Eligibility and Selection Criteria: B-Tech./BE or equivalent in electrical engineering from a recognized university/institution. Selection is based on the marks of 10th, 12th, engineering degree, GATE, CAT, PGDC –CET etc. **Tentative date of starting : Last week of September, 2013.**

2. POST GRADUATE DIPLOMA COURSE IN TRANSMISSION & DISTRIBUTION

The duration of the course is 26 weeks. This course covers the complete syllabus under the provision of CEA Regulations which include the class room sessions as well as on-the-job training. The modules of the course is totally practical oriented as plenty of sessions for the on-the-job training at various sub-stations, contractor sites, manufacturing plants, laboratories, etc. are very well organized and planned.

All faculties of the program have in-depth experience of the area/ topic they cover during the lecture. To enhance the personal and managerial skills, Managerial Inputs are also given to the students. After completion of the course the trained engineers would be fully conversant with the T&D technology and can take over the charge of the O&M of Substations as working engineers. The main aim of the course is to develop a pool of technically trained manpower readily available to work in any of the disciplines of Transmission & Distribution including erection, commissioning, operation, maintenance, manufacturing etc. The course is also open for the sponsored engineers from SEBs/Power Utilities. The broad course profile is as follows:

On Job Training at HVDC Station

Description / Program Profile	Duration
Basics of Electrical Engineering and Power Sector Familiarization	4 weeks
Safety	1 week
Sub Station Engineering	6 weeks
HVDC	1 week
Power Station Protection	1 week
Operation & Maintenance of Sub Station	2 weeks
Transmission Line Engineering	1 week
Power System Operation and Load Dispatch	1 week
On-Job-Training (Transmission System)	3 weeks
Distribution Engineering	2 weeks
On-Job-Training (Distribution System)	2 weeks
General Management	1 week
Final Appraisal	1 week
TOTAL DURATION	**26 weeks**

Eligibility and Selection Criteria: B-Tech./BE or equivalent in electrical, electronics and control & instrumentation engineering from a recognized university/institution. Selection is based on the marks of 10th, 12th, engineering degree, GATE, CAT, PGDC –CET etc.

Tentative date of starting : Last week of August, 2013.

3. TWENTY SIX WEEKS POST DIPLOMA COURSE IN DISTRIBUTION SYSTEM

This course covers the complete syllabus under the provision of Indian Electricity Regulations-2010 which will include the class room sessions, Lab sessions as well as on-the-job training. The students have to attend the Labs and workshops for practical demonstration and testing and the on-job practice sessions in various Distribution 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. After completion of the course the students would be fully conversant with the Distribution technology and can take over the charge of the O&M of Substations as working Supervisors.

The main aim of the course is to develop a pool of technically trained manpower readily available for recruitment to the Distribution areas of Indian Power Sector. The course is also open for the sponsored candidates from SEBs/Power utilities.

The details of the syllabus are as follows:

Module	Duration
Introduction of Power System & Power Development in India	1 week
Safety	1 week
Basic Electricals	2 weeks
Sub Station Engineering/Switchyard Equipment in Distribution	2 weeks
Distribution Equipments	2 weeks
O&M of S/S Equipment	2 weeks
Distribution Line Engineering & Cables Used in Distribution	2 weeks
Distribution Metering & Efficient Energy Mgt.	1 week
Distribution Management including Tariff & Regulation / Distribution System Planning & Analysis	1 week
*Lab / workshop	4 weeks
SCADA & Automation in Distribution	1 week
IT Application in T&D/ GIS Application	1 week
Directed on-job Training	2 weeks
Management / Aptitude / Personality Development	1 week
Seminars / Presentation	1 week
Distribution Simulator	1 week
Visit and Final Assessment	1 week
TOTAL	**26 Weeks**

ELIGIBILITY

Diploma Holder in Electrical Engineering from a recognized Institution/University with minimum of 60% marks with I Class/I Grade from 10th onwards

SELECTION CRITERIA FOR ADMISSION

Based on the Merit of marks of 10th, 12th & Diploma Engineering.

AGE LIMIT:

For Non-sponsored candidates, the age limit is 26 years. No age limit for the sponsored candidates.

Tentative date of starting : 1st week of August, 2013.

4. TWELVE WEEKS PROGRAM ON THERMAL POWER GENERATION

Program on Thermal Power Generation, is specially designed for executives who have just joined or are interested to start their carrier in the Power Sector. The course has been designed to give in-depth concepts of thermal power generation and on-job training including simulator training. The executives after going through the above course can take charge of the power plant operation confidently. The following contents will be covered:

- Overview of thermo dynamics and fluid mechanism related to thermal plants.
- Safety in power plants.
- Thermal power plant systems: air, water, steam, fuel, ash handling systems.
- Lubrication of bearings and vibration analysis.
- Design, construction, O&M of boiler and turbine along with their auxiliaries.
- Generators, transformers, motors, electrical testing and protection.
- Power plant efficiency and performance optimization.
- Other inputs necessary for power generation business:
  - Environmental issues
  - Commercial issues
  - Labour laws
  - Project Management
  - Communication Skills
- Practical insight through power plant visits and work assignments with plant executives.
- 200/500 MW Simulator Training.

Remark : The course can be stated on any date convenience to the client organizations.

5. SIX WEEKS PROGRAM ON DISTRIBUTION MANAGEMENT SYSTEM

In the present power scenario high quality design, manufacturing and their testing practices in the Distribution System is the need of the day. Application of IT and use of GIS will facilitate to cater to the needs of monitoring and maintaining reliability & quality power supply, Network analysis, Load Management, efficient MBC (metering, billing and collections), comprehensive energy audit, theft detection and reduction of T&D losses will ultimately improve the overall efficiency of the Distribution System and help accelerate achieving commercial viability of the Utilities.

The role of middle and senior level managers working in a distribution entity therefore becomes very important to keep them abreast with the latest technologies and their applications at his working place.

In view of the above CBIP with the aim to disseminate the technical knowledge with latest development in power distribution system CBIP is planning to launch six weeks program on Distribution Management System. The following contents will be covered:

- Modern Design, Manufacturing & Testing Practices of Distribution System Components
- DSM & Energy Auditing for efficient Distribution System.
- Various Methodologies for Distribution Reform, Up gradation and Modernization (DRUM)
- Application of IT & GIS for effective Load Management and Planning.
- Grievance redressal and customer satisfaction
- Distribution Automation and SCADA
- Practical Demonstration on Networking Calculation through PC
- Practical demonstration on software for design
- Substation earthing.

Remark : The course can be stated on any date convenience to the client organizations.

FEE STRUCTURE FOR LONG TERM TRAINING PROGRAMS OF CBIP FOR THE YEAR 2013-2014

Sl.No.	Name of the Course	Duration	*Training Fee
LONG TERM COURSES (Period 17 to 52 weeks)			
1	Post-Graduate Diploma Course in Thermal Power Plant Engineering		
	Non-sponsored candidates	52 Weeks	1,50,000
	Sponsored candidates	52 Weeks	2,50,000
2	Post-Graduate Diploma Course in O&M of Transmission & Distribution Systems		
	Non-sponsored candidates	26 Weeks	1,30,000
	Sponsored candidates	26 Weeks	1,60,000
****MEDIUM TERM COURSES : (Period 12 Weeks)**			
3	Specialized course on Thermal Power Generation		
	Residential candidates	12 Weeks	1,30,000
	Non Residential candidates	12 Weeks	80,000
*****SHORT TERM COURSES : (Period 1 to 4 Weeks)**			
4	Specialized course		
	Residential candidates	1 Day	5500
	Non Residential candidates	1 Day	4000
TAILOR MADE / SPONSORED PROGRAMS			
	Based on the number of days and the Program schedule, the fees will be decided		

* Service Tax charges will be extra as applicable.

** Includes thermal simulator fee of two weeks.

*** In respect of short term courses, fee is inclusive of tea/snacks and working lunch.

SHORT TERM PROGRAMS

INTERNATIONAL COLLOQUIUM ON UHV IN ASSOCIATION WITH CIGRE

3rd & 4th APRIL, 2013, NEW DELHI

PROGRAM OVERVIEW

GRIDTECH – An international Exhibition and Conference provides an international platform to manufacturers/suppliers/academicians/consultants to showcase their State-of-the-Art products and technologies in the field of Transmission, Distribution, Smart Grid and City, Renewable energy sources integration, Load Dispatch & Communication. This biennial international event provides a unique opportunity for the Power Utilities, Manufacturers, Research institutions, Academicians, Consultants etc. to get exposed to emerging technologies in the above fields. The conference provides oppurnity for Indian professionals to exchange ideas/experiences with International/National manufacturers, planners, utilities, policy makers, regulators, academicians, experts on new technologies in this field.

PROGRAM PROFILE

- System/UHVAC substation and line
- 1200kV substation layout and design consideration
- 1200kV Transmission line design
- Insulation coordination for UHVAC system
- Installation and Commissioning
- UHVAC Installation and field testing experience
- Maintenance and operational issues
- Equipment development
- Design and manufacturing issues, factory tests of :
  - UHVAC Transformers
  - UHVAC Surge Arrester
  - UHVAC Instrument Transformer
  - UHVAC Switchgear
- Insulators, hardware, clamps and connectors
- Operational Experience
  - UHVAC Transmission line operation
  - UHVAC Substation operation
- Performance Test Techniques

METHODOLOGY

The program would be delivered through exhibition, displays, interactive group discussions and case studies.

PARTICIPANT PROFILE

The colloquium will be of special interest to Power Utilities/Corporations, State Govt./ SEBs, Researchers/Academics, Manufacturers, Planners, Operators, Consultants, Electrical Contractors etc.

SEMINAR ON GEOTECHNICAL CHALLENGES IN INFRASTRUCTURE PROJECTS

25th & 26th APRIL, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

The program will provide a forum for the design and construction engineers to discuss the solutions to various geological and geotechnical surprises encountered during the execution of infrastructure projects and use the knowledge for safe and economical design and construction of such projects.

PROGRAM PROFILE

- Testing and Modeling of Rocks & Rock Masses
- Rock Dynamics
- Slope Stability Problems
- Underground Structures: Analysis, Design & Construction
- Instrumentation and Monitoring Systems
- Jet Grouting and Plastic Concrete Diaphragm Wall Techniques for Seepage Cut-Off
- Construction of Canals in Water Logged or Poor Quality or Swelling Soil Regions
- Use of Remote Sensing and GIS Applications in Geotechnical Investigations and Interpretation
- Geotechnical Aspects of Natural Disasters

METHODOLOGY

The program would be delivered through Invited Lectures, experts in the field of design and construction of underground works , canals, instrumentation, rock mechanics, presentation of case studies etc.

PARTCIPANTS PROFILE

Executives involved in design and construction of underground works, canals, rock stabilization and other infrastructure projects; geotechnical investigation

COAL CHARACTERSTICS, MILL PERFORMANCE & COMBUSTION OPTIMIZATION

29th APRIL – 1st MAY, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Milling system performance has a vital role to play in efficient combustion process. It is also important for practicing power engineers to have a good understanding of the combustion process and the impact of coal characteristics on combustion. It is, therefore, important to precisely monitor coal characteristics milling system performance and take necessary corrective actions to ensure efficient running of the plant. This comprehensive course is conceived to improve the understanding on coal characteristics, combustion process and facilitate O&M engineers to analyze milling plant performance for better combustion optimization.

PROGRAM PROFILE

- Coal characteristics and impact of coal on mill performance
- Combustion fundamentals, application - boiler perspective
- Combustion control - viewpoint of boiler Efficiency
- Mill performance - Tests, Analysis, Fineness, Pulverized Fire pipe balance
- Mill operation and maintenance issues
- Problems faced & Remedial Measures to improve Mill Availability & Performance

METHODOLOGY

Lecture sessions and discussions

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Boilers, Mill Maintenance and Efficiency Optimization of Boiler.

CONFERENCE ON O&M AND LIFE CYCLE MANAGEMENT OF SUBSTATION

16th – 17th MAY, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Substations form important parts of electric power system for the supply of power to different locations by means of various equipments such as transformers, circuit breakers, isolators etc. The primary requirements of a good substation are flexibility, reliability, ease of operation and maintenance not only that, it should meet the requirements from the point of view of safety of the operation as well as that of maintenance personnel. Besides, the layout, it should not be susceptible to breakdowns in power supply due to faults within the substation, as these faults are likely to be more serious than those occurring on the supply resulting in heavy loss to industrial production besides discomfort to consumers who need reliable power supply.

PROGRAM PROFILE

- Renovation, refurbishment, extension and up-rating of substations
- Asset management, maintenance, monitoring, reliability and sustainability issues.
- Managing risk in design, installation and operation of substation
- Forced outage due to failure of substation equipment
- Improve availability of the generation by proper and scientific maintenance of substation equipment
- Utilize the generation capacity to the optimum level
- Reducing the forced outages
- Preventive maintenance or periodic maintenance
- Modern condition monitoring techniques
- Residual life assessment of the equipment

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

The workshop will be of special interest to Power Utilities/Corporations, State Govt./ SEBs, Researchers/Academics, Manufacturers, Planners, Operators, Consultants, Electrical Contractors etc.

"DAM INDIA-2013" LATEST TECHNOLOGY IN PLANNING DESIGN AND CONSTRUCTION OF DAMS

22nd - 23rd MAY, 2013, INDIA HABITAT CENTRE, NEW DELHI

PROGRAM OVERVIEW

This program will focus on the technological developments in the field of dam engineering and update the knowledge of dam professionals in the country. As dam engineering developed with advancement of technology, number of dams of different types came into operation, adopting modern design and methods of construction with accent on safety of these structures as it is considered imperative to derive economic benefits from these dams for as long a period as possible.

PROGRAM PROFILE

- Technical progress on high dams
- Design
- New Technologies in Dam Construction
- Operation and monitoring techniques
- Financing of water resources infrastructure projects and the possible role of Power Producers
- Environment and dams
  - Environmental and social friendly practices related to dam planning, design, construction & operation
  - Monitoring techniques and improvement measures on reservoir water quality and sediment issues
  - Sustainable management of dams and reservoirs
- Effective utilization of existing dams
- Dam Safety Management
- Research Needs

METHODOLOGY

The program would be delivered through invited lectures both national and international, presentations from Dam professionals in the field of conventional dam construction, Concrete faced rockfill dams and RCC dam construction, , Environmental specialist, hydraulic engineers, instrumentation experts Financing experts, presentation of case studies etc.

PARTICIPANTS PROFILE

Planners, designers, decision makers, administrators, construction engineers, geologists, consultants, geotechnical testing and investigation, researchers etc. working in the field of planning, designing and construction of multipurpose dam projects.

WORKSHOP ON REFURBISHMENT, MODERNIZATION & UP RATING OF HYDRO PLANTS

30th - 31st MAY, 2013, DEHRADUN

PROGRAM OVERVIEW

Renovation & Modernization of old power stations is cost effective, environment friendly and requires less time for implementation. Capacity addition through RM&U of old power stations is an attractive proposition in the present scenario, when most of the SEBs/Power Utilities on account of their financial conditions are not in a position to invest in creation of new generating capacity. The economy in cost and time essentially results from the fact that apart from the availability of the existing infrastructure, only selective replacement of critical components such as turbine runner, generator winding with class F insulation, excitation system, governor etc. can lead to increase in efficiency, peak power and energy availability apart from giving a new lease on life to the power plant/ equipment.

Normally the life of hydro electric power plant is 30 to 35 years after which it requires renovation. In a fast changing technological environment, it has become desirable after elapse of 15 years to go for modernization in view of the new system requirements thereby enhancing the availability/ generation with minor modifications. While renovating the machine, care should be taken to replace old items/equipments by the new technological alternatives.

Modernization is a continuous process and can be a part of the renovation program. The reliability of a power plant can certainly be improved by using modern equipments like static excitation, microprocessor based controls, electronic governors, high speed static relays, data logger, vibration monitoring, silt content in water, etc. Upgrading/up rating of hydro plants calls for a systematic approach as there are number of factors viz. hydraulic, mechanical, electrical and economic, which play a vital role in deciding the course of action. For techno-economic consideration, it is desirable to consider the up rating along with Renovation & Modernization/Life extension.

PROGRAM PROFILE

- Need and Scope of Refurbishment, Modernization & Up Rating
- Renovation, Modernization & Up Rating of an Old Plant
- Assessment of Existing Condition of Machine
- General Guide Lines While Checking Feasibility of Up Rating
- Essential Studies for Refurbishment & Up Rating of Generator
- Essentials Studies for Refurbishment & Up-Rating of Turbine
- Case Studies of Actual Refurbishment, Modernization and Up Rating of Different Power Houses

METHODOLOGY

The program would be delivered through, case studies, and interactive group discussions.

PARTICIPANT PROFILE

Executives involved in hydropower development

SEMINAR ON APPLICATION OF GEOSYNTHETICS IN INFRASTRUCTURE PROJECTS

20th - 21st JUNE, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Today the use of Geosynthetics is increasingly being accepted as construction material in different fields of civil engineering not only in developed countries but also in the developing countries like India. Recent developments in synthetic and natural fabrics have provided enormous fillip in the use of geosynthetics materials and an entirely new spectrum of applications has emerged. The present program will be focusing on field applications of geosynthetics.

PROGRAM PROFILE

- Types of Materials Used for Manufacture of Geosynthetics and Geogrids – Their Properties, Testing and Evaluation
- Classification of Geosynthetics and Geogrids
- Usage of Geosynthetics
- Safety Aspects of Structures Designed by use of Geosynthetics vs. Rigid Structures

METHODOLOGY

The program would be delivered through Invited Lectures and case studies.

PARTCIPANTS PROFILE

Executives involved in design and construction of infrastructure projects.

TRAINING PROGRAM ON POWER SYSTEM PROTECTION

24th -26th JUNE, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Power System Protection is presently undergoing a transition to microcomputer technology. The introduction of digital technology in the protection field has made tremendous changes in the protection philosophy. The new relays are multifunctional and operate fully digitally (numerically). Apart from the basic protection function, these relays have extensive self-monitoring capabilities and can communicate with operator terminals and control systems. This program is aimed to provide an overview of the latest technologies used in the numerical based power system protection, their underlying theory, algorithms and areas of application.

PROGRAM PROFILE

- Overview of power system protection
- Introduction to numerical relays
- Signal conditioning and processing
- Relay algorithms
- Numerical techniques for generator, transformer and line protections

METHODOLOGY

The program will be covered through class room lecture sessions, discussions and case studies.

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Electrical Equipments in Power Plants.

CONFERENCE ON GENERATION FROM RENEWABLE SOURCES AND GRID CONNECTIVITY

27th -28th JUNE, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

The challenges for transmission and dispatch of renewable – based electricity are on many accounts like issue of evolving appropriate technical standards for connectivity and Grid operations. Finances are scarce with state transmission utilities and the transmission infrastructure for renewable gets less priority due to lower capacity utilization, Scheduling and real time grid management and less time is available for the commissioning of transmission infrastructure to evacuate power from the sources because gestation period of generating station is hardly one to two years, whereas that of transmission system for power evacuation is close to three years. Keeping in view the importance of the subject , this conference is being planned with the aim to discuss these issues in details and come out with positive/concrete recommendations on the subject.

PROGRAM PROFILE

- Road map of generation from renewable sources by 2022
- Renewable power plant technology – Wind, Solar
- Renewable Power Purchase Obligations (RPO) by utilities and REC mechanism
- Recovery provision on investment in renewable power plant
- Development of connectivity system for RE generation upto pooling/ receiving station and transmission infrastructure strengthening beyond pooling station to address; location bound renewable energy potential, intermittency of Renewable energy etc.
- Recovery mechanism of investment in transmission infrastructure for RE generation
- Creation of balancing mechanism for RE generation – establishment of a few quick start grid connected peaking plants
- Issues in grid connectivity of RE generation
- Application of Smart Grid for effective utilization of RE generation

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

The professionals from Power Utilities/Corporations/SEBs, State Govt., Nodal Agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Development Consultants, Researchers/Academics, Construction Companies, Financial Institutions, Engineers and Managers from Large Scale, Medium Scale and Small Scale Industries, Railways, Oil & Gas Industries, Petrochemicals, Refineries and Power Plants etc.

ROCK MECHANICS INDIA'2013 – PRESENT TECHNOLOGY AND FUTURE CHALLENGES AND WORKSHOP ON "OPEN PIT MINING"

3rd – 5th JULY, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Considerable activities in India in the field of rock mechanics are in progress, mainly due to the execution of projects for irrigation, flood control, hydro power generation, building of roads in mountainous areas, sub-surface excavations for under-ground railway, storage and mining purposes, etc. Construction of dams, tunnels, underground works, open pit mining, deep underground mining, stability of rock mass often encounter the problems associated with unfavorable geological conditions. The experience gained during construction of these works will help in understanding the mechanism or rock support interaction, thus advancing the frontiers of rock mechanics. The aim of the program is to deliberate on the advances in rock engineering.

PROGRAM PROFILE

- Advancements in Testing & Characterization of Rocks & Rock Masses
- Modeling and Analysis of Rock Structures
- Preservation and Restoration of Ancient Rock Monuments
- Underground Construction and Mining in Problematic Geological Conditions
- Utilization of Underground Space including Storage of Water & Gas
- Fracture and Fragmentation
- Stability of Underground and Surface Openings
- Environmental Issues

Special Session on Underground Mining

- Underground Mining in Narrow and Wider Ore Bodies with Different Rock Mass Conditions
- Underground Mining at Deep Seated Ore Body
- Underground Development & Mining in Weak Rock Mass Conditions
- Instrumentation in Underground Mining for Better Safety & Productivity

Pre-Symposium Workshop - Open Pit Mining

- Instrumentation and Slope Monitoring
- Pit Slope Stability in Open Cast Mines
- Blasting Practices for Safe Open Pit mining
- Ground Water Management

METHODOLOGY

The program would be delivered through Invited Lectures, presentations from experts in the field of design and construction of underground works, Mining industry, Environment, rock blasting , rock mechanics, instrumentation, presentation of case studies etc.

PARTCIPANTS PROFILE

Executives involved in design and construction of underground works including under ground mining, rock stabilization, numerical modeling, instrumentation, blasting, related environmental issues, geotechnical investigation and testing etc.

INTERNATIONAL CONFERENCE ON INNOVATION & BEST PRACTICES IN TRANSMISSION SYSTEMS

11th – 12th JULY, 2013, INDIA HABITAT CENTRE, NEW DELHI

PROGRAM OVERVIEW

As the transmission systems become older, they need condition monitoring so as to find any incipient fault and to take corrective action before its total failures. The state-of-art technique on maintenance of transmission lines, being adopted worldwide by the various electric utilities, will be discussed at the above conference planned at New Delhi.

To interact and discuss the best practices and innovation in transmission systems amongst the national and international professionals on the subject.

PROGRAM PROFILE

- Geospatial workflows in Transmission ROW
- Reliability Centered Maintenance (RCM) for Operational Excellence
- Asset Information Management for planning & Disaster Management
- Substation Engineering the 21st Century Utility
- Minimizing the impact of new overhead lines
- Reliability and design optimization
- Conductors, installation and long term performance
- Maintenance procedures of EHV transmission lines
- Probable causes of failure of the transmission line components
- Condition monitoring of EHV transmission lines
- Counter measures for pollution
- Insulator-washing/cleaning
- Emergency restoration of damaged transmission lines
- Helicopter maintenance techniques
- Composite/polymer insulators
- Hotline maintenance
- Prevention maintenance schedules of transmission lines
- Case studies

METHODOLOGY

The program would be delivered through interactive group discussions and case studies.

PARTICIPANT PROFILE

Power Utilities/Corporations, SEBs, State Govts., IPPs, Energy Planners, Private Entrepreneurs, Developers, Manufacturers, Consultants, Construction Companies, Industry Associations, Financial & Technical Institutions, Training Institutions etc.

BEST PRACTICES IN OPERATION, MAINTENANCE & PERFORMANCE IMPROVEMENT OF COOLING TOWERS AND CIRCULATING WATER SYSTEM

17th – 19th JULY, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Cooling Towers are most important heat exchangers of power plant. Improvement in CT performance results in significant improvement in efficiency of plant. The performance of cooling tower is affected by quality of circulating water. This workshop shall provide O&M engineers insights on maintenance strategies, understanding of circulating water quality affecting CT performance and experience sharing platform on problems & their solutions. It shall provide an opportunity for design engineers also to get feedback on design, performance and maintenance aspects.

PROGRAM PROFILE

- Basic Design Aspects of Cooling Towers.
- Maintenance related issues for Cooling Towers.
- Best Practices in O&M of CT'S and CW Pumps
- Importance of quality of circulating water.
- Performance improvement of Cooling Towers & Circulating Water System
- Experience sharing by practicing engineers to improve the Performance of Cooling Towers.

METHODOLOGY

Lecture Sessions, Presentation, Case Study & Discussion

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Turbine and its Auxiliaries in Power Plants.

"HYDRO INDIA" 2013 – ISSUES AND CHALLENGES IN HYDROPOWER DEVELOPMENT IN INDIA

25th – 26th JULY, 2013 (Tentative), CBIP, NEW DELHI

PROGRAM OVERVIEW

The prime objective of the program is to promote accelerated development of hydro power and to strategize the way forward for its speedy development.

PROGRAM PROFILE

- Energy Scenario and Role of Hydro
- Basin Wise Potential and Development Scenario
- Constitutional Provisions of Water and Power Resources
- Regulatory Issues
- Resettlement and Rehabilitation Policies
- Appraisal and Techno-Economic Clearances
- Hydro-Development in the Neighbouring Countries
- Response and Achievement of Private Sector
- Pumped Storage Developments
- Issues, Constraints, and Challenges in Development
- Innovations for Future Projects

METHODOLOGY

The program would be delivered through Invited Lectures, presentations from experts in the field of design and construction of Hydro electric and pumped storage projects, planners associated in the field of Hydro-power development ,Developers, presentation of case studies etc.

PARTCIPANTS PROFILE:

Planners, designers, decision makers, administrators, construction engineers, geologists, consultants, geotechnical testing and investigation, researchers etc. working in the field of planning, designing and construction of Hydro-electric projects.

ADVANCES IN SUPER CRITICAL TECHNOLOGY

29th – 31st JULY, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

The program aims to provide advance level knowledge of the design philosophy, erection and constructional details, thermodynamic aspects and operational aspects of super critical technology.

PROGRAM PROFILE

- Thermodynamic aspects of super critical technology
- Design and development of once thru super critical boilers
- Materials for super critical/advanced super critical/ultra super critical units
- Technological advancement in super critical boilers
- Advancement in turbines for super critical units
- Water chemistry for super critical units

METHODOLOGY

The program would be delivered through class room sessions and interactive group discussions.

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Boiler, Turbine and their Auxiliaries in Power Plants.

RENEWABLE ENERGY & DISTRIBUTED GENERATION

21st – 23rd AUGUST, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Renewable Energy and Distributed Generation is poised for speedy growth in the Country, India has formulated its business plan of capacity addition of more than 30000 MW through renewable energy sources like solar, wind, hydro, biomass, bio-fuel by 12th plan and 30500 MW by 13th plan. Similarly a number of players in the Power Sector are planning to enhance the Power Generation capacity in Renewable Energy. A number of Diesel Generation Projects based on biomass and SPV technology are being implemented. The program focuses on growth opportunities in this field, technologies, policies and sustainability issues.

PROGRAM PROFILE

- The science behind Renewable Energy and Energy Technologies
- Tools & Resources by Technology.
- Understanding and Installation of Solar Electric System
- Tidal Wave Ocean Energy
- Geo Thermal use in Generation.
- Electricity from Wind Turbine
- Renewable Energy for Climate change
- Facts on Biomass Energy.

METHODOLOGY

Lecture & discussion

PARTICIPANT PROFILE

Executives working in Conventional & Renewable Energy Power Plants and consultants / manufacturers.

PREPARATORY COURSE FOR ENERGY AUDITORS / ENERGY MANAGERS

9th – 13th SEPTEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Energy Conservation Act, 2001 makes it mandatory for all designated energy consumers to get energy audits conducted by an Accredited Energy Auditor [under clause 14(h) and 14(i)] and to designate or appoint Energy Managers [under clause 14(l)]. The thermal power stations, hydro power stations, electricity transmission & distribution companies are also covered in schedule as designated energy consumers. The certification as accredited energy auditor/ energy manager shall be through successful clearance of the national level examination conducted under the aegis of Bureau of Energy Efficiency (BEE). The preparatory program will provide the participants comprehensive inputs regarding all the subjects covered in the four papers prescribed for Energy Auditor.

PROGRAM PROFILE

- General aspects of energy management and energy audit
- Basic principles of energy management and audit
- Energy action planning
- Financial management
- Project management
- Energy monitoring & targeting
- Global concerns
- Energy efficiency in thermal utilities
- Boilers, steam systems, insulation & refractories
- Energy efficiency in electrical utilities
- Electrical systems
- Motors and pumps
- Compressed air system
- HVAC system
- Lighting system
- Energy performance assessment for equipment and utility systems
- Preparation for the examination

METHODOLOGY

Class-room sessions, case studies and model examinations

PARTICIPANT PROFILE

Executives from SEB's, IPP's and other Power Utilities who intend to appear in BEE approved examination for Certified Energy Auditor/ Manager.

POWER ENGINEERS CONFERENCE 2013 ON EARTHING SYSTEMS

16th – 17th SEPTEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

It is well known that Earthing plays an important role in proper operation of generation, transmission and distribution systems. The function of earthing in an electric power system is to

(i) Maintain the potential of current carrying as well as non-current carrying parts of equipment, apparatus and appliances connected to the system

(ii) To ensure safety of equipment and personnel and correct operation of protective devices during earth faults.

Earthing also provides safety during lighting strikes on equipment or structures and on occurrence of induced voltages and currents on equipment of an electric system. A proper earthing system provides easy and shortest path to the flow of fault current without adversely affecting the continuity of service. It also ensures that a person present in the station area is not exposed to danger of electric shock.

PROGRAM PROFILE

- Types of earthing and design parameters
- Earthing and IE rules
- Soil resistivity measurements and interpretation
- Earthing of generating plants, substations, transmission lines, distribution lines and load distribution centers
- Use of computer software for earthing system
- Current for design of earthing system
- Earthing of electronic equipment in power stations
- Role of earthing in protection of installations and equipment from lightning
- Requirements of earthing in hilly and corrosion prone areas
- Testing, installation, inspection and maintenance together with their periodicity
- Case studies

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

- Planners, Independent Power Producers, Operators, Consultants, Electrical Contractors
- Researchers/Academics, Manufacturers, Power Utilities/Corporations, State Govt./ SEBs etc

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TURBINE GOVERNING SYSTEM

18th -20th SEPTEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

This program is aimed to provide an overall idea about the functioning of steam turbine governing system. Governing system is one of the most important and complex system of any prime mover. Its functions include turbine startup, raising of speed to rated level, unit synchronization, load sharing and protection of turbine during abnormal conditions. Proper understanding of the functioning of various subsystems of the governor, their arrangement, setting etc will be very useful for both Operation and Maintenance Engineers.

PROGRAM PROFILE

- Introduction to governing system, types and principles
- Modeling of Turbine and Governor Components
- Detailed explanation of Turbine Governing
- Introduction to 660 MW Turbine Governing
- HP / LP Bypass System
- Modeling of Turbine and Governor
- Turbine Protections
- Automatic Turbine Test (ATT)
- Automatic Turbine Run-up System (ATRS)
- Electro Hydraulic Governor Control System

METHODOLOGY

The program will be covered through class room lecture sessions & Case Studies

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Turbine and Auxiliaries

WORKSHOP ON TUNNEL DESIGN AND CONSTRUCTION - ISSUE AND CHALLENGES

24th -25th SEPTEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

To provide design and construction elements to young professionals related to the best practices of tunnel design.

PROGRAM PROFILE

Introduction and Overview on Tunnel Design

- Design Philosophy: Tunnel Design and management by design
- Specificities and Stages of tunnel design
- Geo-investigation and Tunnel Modeling parameters

General Aspects of Tunnel Design

- Construction Methods and aspects affecting design (ventilation etc.)
- Types and uses of Tunnels and Caverns
- Excavation in difficult ground (cavities, fault zones etc.)
- Monitoring for Conventional and Mechanized Tunneling

Conventional Tunneling

- Sequential excavation in soft ground and hard rock
- Structural design (Calculation, Dimensioning, Face stability)
- Ground reinforcement techniques
- Water control and drainages

Mechanized Tunneling

- Types of machines and support systems
- Interface between TBM and Lining
- Design of Face pressure, Soil condition, Backfilling
- Segment lining design for soft ground and hard rock

METHODOLOGY

Engineers associated with the design and construction of tunnels and Geotechnical investigation, Geologists, Tunnel Building Contractors & Consultants, Suppliers of Products & Services for Tunneling Construction, Technical and Research Institutes etc.

PARTICIPANT PROFILE

Tunnel Designs & Operators, Engineers, Geologists, Regulatory Bodies, Government Departments, Tunnel Building Contractors & Consultants, Suppliers of Products & Services for Tunneling Construction, Fire Authorities dealing with Infrastructure Tunnels, Technical and Research Institutes, Universities dealing with Tunneling, Organization & Associations active in the Tunneling World and Funding Agencies.

EHV SWITCHYARD EQUIPMENT & SUBSTATION AUTOMATION

26th – 27th SEPTEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

EHV Switchyard is the vital link between power generating stations and transmission lines for evacuation of power. Proper operation and maintenance of Extra High Voltage equipments in switchyard area is very critical for high availability and reliability of power generating stations and safety of working personals. This program aims to cover the design principles, construction, operation, maintenance, testing and troubleshooting aspects of EHV equipments. Also proper understanding of functioning and operation of Generator Circuit Breaker (GCB) and Substation Automation System (SAS) will be very useful for design, operation and maintenance engineers. The program also provides a forum for dissemination of up-to-date information on the subject through case studies and interaction with established vendors/manufactures.

PROGRAM PROFILE

- EHV switchyard schemes and layout
- Construction, operation, maintenance and testing of EHV circuit breakers
- Use of generator circuit breakers in power plants
- Design, construction, selection and maintenance of instrument transformers
- Construction, operation and maintenance of surge arrestors
- Substation Automation System (SAS)

METHODOLOGY

The program will be delivered through class room lecture sessions, discussions and case studies.

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Electrical Equipments of Power Plants.

WORKSHOP ON ROTATING MACHINES

21st – 22nd OCTOBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Whether a generator or small low voltage motor, a rotating electrical machine is usually a critical component, which if out of action, can have dire consequences.

The workshop is being planned with the aim to provide a forum for open discussions and exchange of information on the latest state-of-the-art technology to come out with positive/concrete recommendations on the subject.

PROGRAM PROFILE

- Design, improvements of rotating electrical machines for better efficiency
- Site testing of HV electrical rotating machines and their diagnosis
- Partial discharge monitoring system for large electric machines
- Condition based monitoring (CBM) of hydro generators and motors
- Review of O&M aspects and field testing of motors
- Site testing of large generators for residual life assessment (RLA)
- Design requirements of motors for VFD (variable frequency drive) application
- Machine design
- Energy efficient motors and incentives
- Vibration problem encountered in hydro generators
- Enhancing efficiency in HPP
- Case studies on renovation, modernization and up rating (RMU) of power house
- O&M problems encountered in power station
- Design improvements in large turbo generators

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

The professional from Power Utilities/Corporations/SEBs, State Govt., Nodal Agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Development Consultants, Researchers/Academics, Construction Companies, Financial Institutions, Engineers and Managers from Large Scale, Medium Scale and Small Scale Industries, Railways, Oil & Gas Industries, Petrochemicals, Refineries and Power Plants etc.

INTERNATIONAL SEMINAR "GEOSYNTHETICS INDIA - 2013" AND AN INTRODUCTORY COURSE ON GEOSYNTHETICS

23th – 25th OCTOBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Geosynthetics are now being increasingly used the world over for every conceivable application in civil engineering, namely, construction of dam embankments, canals, approach roads, runways, railway embankments, retaining walls, slope protection works, drainage works, river training works, seepage control, etc. due to their inherent qualities. Its use in India is picking up, but is not anywhere close to recognitions. This is due to limited awareness of the utilities of this material and developments taking place in its use. The objective of the International Seminar is to be abreast with the latest developments in the field of Geosynthetics.

PROGRAM PROFILE

- Geosynthetics Materials
- Testing & Evaluation, Specifications and Standardization
- Reinforced Soil Structures
- Soil Slopes Stabilization and Landslide Mitigation
- Filtration and Drainage
- Roads and Railways
- Hydraulic Structures
- Hazardous Waste Management - Landfills and Ash Ponds
- Erosion Control
- Ground Improvement
- Natural Fiber Geotextiles
- Hill Area Development

METHODOLOGY

The program would be delivered through Invited Lectures and case studies.

PARTCIPANTS PROFILE

Executives involved in design and construction of infrastructure projects.

SEMINAR ON ROLLER COMPACTED CONCRETE DAMS - INNOVATIVE APPROACH IN DAM CONSTRUCTION

7th-9th NOVEMBER, 2013, THIMPHU, BHUTAN

PROGRAM OVERVIEW

The use of RCC in the construction of dams and spillways has become increasingly widespread. RCC techniques are popular for safety of dams, modifications including buttressing concrete dams, rehabilitation of spillways, and overtopping of embankment dams. RCC construction techniques combine the safety, aesthetic, and maintenance advantages of concrete dams with the low cost and high production rates normally associated with earth or rockfill embankment dams.

This Seminar will provide a forum for open discussion and exchange of information on the latest state-of-the-art technology in the design, construction, operation and maintenance of RCC dams amongst the participants, from international experts, consulting engineering firms, contractors and equipment suppliers, etc. besides the potential users.

PROGRAM PROFILE

- General Overview of RCC Technology
- Planning and Layout of R.C.C. dams
- Cost-economics of RCC Dams.
- Design, specifications and construction concepts of RCC Dams.
- Materials for RCC Dams
- Construction & Quality Control. Equipment and programming
- Performance of RCC dams. Experiences on operation
- Behaviour and Use of RCC in dam rehabilitation
- Monitoring and Surveillance
- Technological innovations, Experiences and technologies in different countries on RCC dams construction
- Case Studies

METHODOLOGY

The program would be delivered through invited lectures both national and international, presentations from Dam professionals in the field of planning, design and construction of RCC dam, Mix design and quality control, instrumentation experts, presentation of case studies etc.

PARTICIPANT PROFILE

Planners, designers, decision makers, administrators, construction engineers, geologists, consultants, geotechnical testing and investigation, researchers etc. working in the field of planning, designing and construction of multipurpose dam projects.

NEW TECHNOLOGICAL ADVANCEMENTS IN POWER PLANT CHEMISTRY

11th – 13th NOVEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Power Plant Chemistry is getting more significance as we are going for higher pressure boilers and super critical technology to get more efficiency and availability in power plant. This program will deal with the critical issues related to plant station chemistry and practical training aspects of Water Chemistry. This program will also provide experience sharing platform for all the participants.

PROGRAM PROFILE

- Boiler water treatment, its parameters and effects in the system
- Cooling water chemistry (Open & Closed cycle) Sea water cooling
- Advancement and new technologies for water chemistry
- Corrosion in water steam cycle and power plant
- Metallurgical aspect in power plant and remedial measures
- Analytical practices i.e. coal, oil, water, resin etc.
- Experience sharing amongst participants in power plant chemistry

METHODOLOGY

Lectures, discussions and cases studies

PARTICIPANT PROFILE

Executives from SEB's, IPP's and other Power Utilities working in Water Treatment /Chemical Handling Plants.

CIGRE TUTORIAL & COLLOQUIUM ON SMART GRID

13th - 15th NOVEMBER, 2013, INFOSYS CAMPUS MYSORE, KARNATAKA, INDIA

PROGRAM OVERVIEW

CIGRE India is hosting a meeting of CIGRE Study Committee D2 on Information System and Telecommunication in India on 12th November 2013. To take advantage of presence of CIGRE study committee members and other International Experts in India, CIGRE India and Central Board of Irrigation and Power jointly with CIGRE Committee D2 are organizing International Colloquium on Smart Grid in conjunction with the meeting of CIGRE Study Committee D2 and its working groups in India.

The CIGRE SC D2 deals with the principles, requirements, design, engineering, performance, operation and maintenance of IT and telecom systems such as:

- Telecommunication and information systems for voice, data, video services.
- Specialized solutions for teleprotection, SCADA, EMS and DMS systems.
- Information systems and networks for operational and business needs.
- Requirements and aspects of energy flow-control, security, economy, transparency, quality and regulation.

PROGRAM PROFILE

- Role of ICT in power system
- Standards, Security and Leading-edge technologies in the context of power systems.
- Renewable generation plant communications.

To fully utilize the presence of international experts CIGRE India has also planned the following tutorials:

- Cyber Security
- High Performance computing and
- Communication Challenges for Smart Grid

Technical visit to allied areas on the subject followed by post conference tour are also being planned.

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

The colloquium will be of special interest to Power Utilities/Corporations, State Govt./ SEBs, Researchers/Academics, Manufacturers, Planners, Operators, Consultants, Electrical Contractors etc.

WORKSHOP ON COAL HANDLING PLANT & TECHNOLOGICAL ADVANCEMENT IN CHP EQUIPMENTS

26th – 28th NOVEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Electricity Generation in India is mostly from coal based thermal power plants. Coal Handling Plant is the starting point of thermal power generation process. This plant is very important in the process of power generation, because any interruption to the coal supplies to pulverizer shall affect the generation. Aim of this workshop is to debate on the various issues concerning the reliable operation & maintenance of the plant and also the pollution related aspects of coal handling.

PROGRAM PROFILE

- Design concepts of Coal Handling Plant
- Performance of various equipments of Coal Handling Plant
- Advancement and new technologies for various equipments of Coal Handling Plant
- Various problems faced and solutions adopted; modifications carried out
- Different operating practices
- Recommendations for increasing reliability, economy, availability and utilization of Coal Handling Plants
- Environmentally safe practices for coal handling
- Techniques for reducing fugitive emissions
- Waste minimization
- Inspection of structures of CHP for safe operation.

METHODOLOGY

The program would be delivered through classroom sessions and case studies.

PARTICIPANT PROFILE

Executives from Fuel Management Division / Coal Handling Division of Power Plants from SEBs, IPP's and other Power Utilities.

WATER INDIA-2013: "REFORMS IN WATER SECTOR IMPLICATIONS FOR SUSTAINED FOOD SECURITY"

11th – 13th DECEMBER, 2013

PROGRAM OVERVIEW

It has almost been two decades since structural adjustment and sector reform processes are being implemented in our country. Under these sectoral reforms, legal, institutional, financial and regulatory changes are also ongoing in the water sector. These reforms are being largely implemented under the influence of water sector loans provided by the International Financial Institutions (IFIs) like the World Bank and the Asian Development Bank etc. The focus of such reforms is on financial sustainability and technocratic solutions to the existing problems in the water sector leaving out important issues like social obligations, resource conservation and environmental aspects. Many states in India have now passed the Participatory Irrigation Management (PIM) Act and have initiated the process to form Water Regulatory Authorities. In line with the discussions, it is proposed to organize a national level seminar on the topic" Reforms in Water Sector – Implication for Sustained Food Security".

PROGRAM PROFILE

- 'Integrated multi-sector approach' with regards to the river basin management
- Strategy for enthusing rational multiple water use
- Legal, administrative, financial, and technological incentives for efficient use of water in irrigated agriculture
- Investment options: Financing, Pricing Subsidies in irrigated agriculture
- Incentive for private investments in water sector
- Participatory Irrigation Management
- Role of Govt. Departments vis-à-vis PIM (Participatory Irrigation Management)
- Legal and administrative reforms required for implementing PIM
- Water Governance and capacity building
- Mechanisms for equity in water distribution
- Conflict resolution mechanism in water allocation
- Institutional arrangement for reform and implementation for water governance
- Capacity Building
- Emerging Trends in Public-Private Partnership in the water sector
- Existing models for private public participation
- Legal and administrative measures and safe guards required for public private participation
- Role of donor agencies in pushing reforms in the water sector
- Regulatory mechanism to achieve multi-objective sectoral improvement

METHODOLOGY

The program would be delivered through invited lectures, presentations from expert engineers, planners economists, professionals, regulators and administrators involved in the water and agriculture sector, NGO,s involved in Participatory Irrigation Management, donor agencies etc.

PARTICIPANT PROFILE

The seminar is designed for managers, administrators, policy makers, water professionals, engineers, administrators, policy makers, engineers, researchers, geologists, agriculturist, consulting firms, environmental regulators, catchment management authorities, NGO's etc.

ASH DYKE MANAGEMENT

18th – 20th DECEMBER, 2013, CBIP, NEW DELHI

PROGRAM OVERVIEW

Distress/unsafe conditions in Ash Dykes are highly undesirable; these also result in loss of generation. It is felt that for smooth generation at stations, proper construction, management, monitoring and inspection of Ash Dyke is to be given adequate importance. The program focuses on the critical issue of Ash Dyke Management faced at various Ash Dykes of Power Plants.

PROGRAM PROFILE

- Need of Ash Dyke for Coal Based Thermal Plants
- Methods of Ash Dyke Construction
- MOEF Guidelines (New & Old)
- Methods of Ash Disposal (Lean, High Concentration and HCSD)
- Case studies and experience sharing on Ash Dyke Management
- Design & Construction Aspects of Spillway & Water Escape Structures
- Slope Stability & Seepage Analysis
- Maintenance & Monitoring of Ash Dykes
- Check list for ash dyke inspection
- Geotechnical Aspects and Ground Improvement for Ash Dykes

METHODOLOGY

Lecture, case studies and discussions.

PARTICIPANT PROFILE

Executives involved in O&M aspect of Ash Handling Plants / Ash Dyke Construction, Monitoring and Maintenance from SEB's, IPP'.

NATIONAL CONCLAVE ON ACCELERATED DEVELOPMENT OF POWER SECTOR IN THE NORTH EASTERN REGION AND SIKKIM

19th – 20th DECEMBER, 2013, SIKKIM/GUWAHATI

PROGRAM OVERVIEW

The conclave will focus on the development of power sector in the region including the infrastructure facilities required for the capacity addition program. Discussions will be held with Central and State Govts., Central and State Power Utilities, Project Developers, Equipment Manufacturers, Contractors, Consultants, Financial Institutions, Industry Associations and Training Institutes about the accelerated development of power sector in the Region and to discuss their preparedness with respect to equipment manufacturing and project implementation in generation, transmission and distribution sub-sectors. The huge capacity addition program in Power Sector will also create lot of opportunities for employment generation in the region.

PROGRAM PROFILE

- Overview of power sector in north eastern region and Sikkim
- Development of infrastructure
- Development of hydro-electric projects
- Development of thermal projects
- Development of transmission system
- Development of distribution system

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

Executives from Central/State Govts., Central & State Power Utilities, Project Developers, Equipment Manufacturers, Contractors, Consultants, Financial Institutions, Industry Associations, Training Institutes etc.

TUTORIAL AND INTERNATIONAL CONFERENCE ON POWER SYSTEM PROTECTION AND AUTOMATION

14th – 17th JANUARY, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

International conference on power system protection and automation aims to provide excellent opportunities for the participants to share knowledge, experience and new ideas in the areas of power system protection and automation and discuss their implementation and applications to the existing and network of future smart grid. To avail the benefit of presence of experts from India & abroad at the above conference, Tutorials which covers the details about Power system protection are also being planned for two days on 14-15 January 2014 at CBIP Conference Hall, Malcha Marg, Chanakyapuri New Delhi preceding this International Conference.

PROGRAM PROFILE

- Protection and monitoring of main plant and transmission circuits
- Conventional instrument transformers and novel sensors
- Substation automation and remote control
- Monitoring, metering, recording and overall power system protection
- Asset and information management, maintenance, training and education
- Case studies on protection, performance and analysis

METHODOLOGY

The program would be delivered through interactive group discussions and case studies.

PARTICIPANT PROFILE

Executives from Power Utilities/Corporations/State Govt./SEBs, Nodal Agencies, Energy Planners, Private Entrepreneurs, Manufacturers, Development Consultants, Researchers/Academics, Construction Companies, Financial Institutions etc.

INSIGHT INTO ENVIRONMENT MANAGEMENT, CLIMATE CHANGE & CARBON MITIGATION

22nd – 24th JANUARY, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

The integration of environmental concerns, planning and management, policy making and public involvement is required for sustainable and equitable development. The need is to develop effective environmental policies, plans and programs, and the full integration of environmental, social and economic issues into development and project planning. The real world demands are for rapid, economical and clear-cut decisions. With this in mind the program has been planned to bring together the resources available, environmental issues and its management on key variables that relate to employees, societies, regulators and all stakeholders.

PROGRAM PROFILE

- Concept & criteria of comprehensive assessment of industrial clusters and pollution map
- Understanding environmental issues & challenges- global, national and local: Climate change, International treaties, GHG emissions (direct & indirect), Estimations, Impacts of coal, Hydro & other power plants
- UNFCC, IPCC, Kyoto Protocol, National action plan for Climate Change, Beyond Copenhagen & Pre- Mexico, CDM: Life cycle stages, trading opportunities in power sector, Life cycle assessment (LCA), Ecological & carbon footprint, Carbon neutrality etc.
- Legal Framework: Implementation of environmental laws, Obligation of industries under main acts, Water, Air & EP acts, Important case studies, Proceedings, court decisions, penalties imposed, Cost implications & implementations etc.
- Environmental resource & Economics: National Environmental policy (NEP), Sustainable development concept, Importance of human-environment interface and traditional knowledge base vis-à-vis environmental protection

METHODOLOGY

Lectures, discussions and case studies

PARTICIPANT PROFILE

Executives from SEB's, IPP's and other Power Utilities working in Environmental Management Group and other related areas

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WORKSHOP ON CANAL AUTOMATION

6th -7th FEBRUARY, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

Heavy amount of money have been invested in creation of irrigation schemes and the performance of many of such schemes falls far below expectations. Problems associated with these irrigation schemes are at least partially due to ineffective operation of canal networks. Canal automation is the application of automatic devices or logic to assist in the operation of canal systems. The program will help in understanding the basic canal automation process.

PROGRAM PROFILE

- Need for Canal Automation
- Canal Automation – Present Status and Future Scope
- Mathematical Modeling for Canal Automation
- Canal Operational and Control Methods
- Data and Control Communication Methods
- Role of Gates in Canal Automation System
- Cost Aspect of Canal Automation and its justification
- Instrumentation for Monitoring Irrigation Canal Systems
- Steps for Modernization of Old Canal Regulation Structures and Their Automation

METHODOLOGY

The program would be delivered through invited lectures, presentations from experts in the field of planning, designing, construction and operation and maintenance of canals, Gate experts, Instrumentation experts and presentation of case studies.

PARTCIPANTS PROFILE

Executives involved in the field of planning, designing, Operation and maintenance, instrumentation and construction of water resources projects, research organizations administrators etc.

WORKSHOP ON SUSTAINABLE GROUND WATER MANAGEMENT

13th -14th FEBRUARY, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

Groundwater plays an important role in most of the arid and semi-arid regions. It is either the main source of water or a complementary source to surface water, and can be renewable or fossil. Groundwater resources management and protection are a priority in these regions in order to ensure sustainable development. The workshop aims at presenting the state of the art techniques and research findings in the area of groundwater development, management and protection. It will help in assisting State Govts. to increase their capacities to effectively develop, manage and protect their groundwater aquifers within the framework of integrated water resources management in the State.

PROGRAM PROFILE

- Groundwater Assessment,
- Conservation, Management,
- Quality,
- Artificial Recharging,
- Policy matters, Governance, Legislation,
- Use of Remote Sensing,
- Model Bill and Act etc.

METHODOLOGY

The program would be delivered through invited lectures, presentations from experts in the field of planning, designing, construction and operation and maintenance of ground water works, quality control, artificial recharging, Governance and presentation of case studies.

PARTICIPANTS PROFILE

Scientist, engineers, Hydro-geologist; Geophysicist, Hydro-meteorologist, technicians, managers, planners and policy makers from water utilities, local govt., developers, consulting firms, environmental regulators, NGO's etc,

ROOT CAUSE ANALYSIS OF ELECTRICAL EQUIPMENT FAILURES

17th – 19th FEBRUARY, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

Program will help concerned Electrical Maintenance Engineers in increasing awareness and have an understanding about the strategies required for improving reliability of Electrical Equipments. This program will serve to expose the engineers to the tools used and testing and diagnostic procedures relied upon for conducting the root causes of failures.

PROGRAM PROFILE

- Root Cause & Failure Analysis of Generators & Related Auxiliaries
- Failure Related to Switch yard Equipments
- Failures related to CT/VT
- Root Cause Analysis Related to Failure of Transformers, Motors and other Electrical Equipments

METHODOLOGY

The program would be delivered through classroom sessions, case studies, and interactive group discussions.

PARTICIPANT PROFILE

Executives working in the areas of Operation, Maintenance and Design of Electrical Equipment & Systems from SEB's, IPP's & other Power Utilities.

AFRO-ASIA PACIFIC POWER 2013 – CONFERENCE ON ACCELRATED HYDRO POWER DEVELOPMENT IN NEPAL

20th -21st FEBRUARY 2014, NEPAL

PROGRAM OVERVIEW

Considering the rapid advances in technology for harnessing these resources, it is considered opportune to provide a forum for exchange of experiences to facilitate flow of technology from one country to another. In the backdrop of this scenario the International Association on Electricity Generation, Transmission and Distribution (Afro-Asian Region) is organizing this International Conference on "Speedy Development of Hydropower in Developing Countries – Issues and Challenges" of Hydropower in Nepal. The conference will focus on various aspects of Speedy Development of Renewable Energy Sources with special focus on hydropower and provide an international forum on the subject where engineers, managers stakeholders, independent power producers, manufacturers, contractors, researchers, etc., will exchange views and experiences among themselves and will take stock of emerging need of speedy developments of the power sector that can be of interest and importance to the industry.

PROGRAM PROFILE

- Power Project Development – Policy & Legal Issues.
- Power Project Development - Project Management Issues
- Power Project Development - Project Financing Issues
- Power Project Development– Planning & Decision – Making Issues
- Power Project Development - Regional Power Trading
- Non- Conventional Energy Sources in Conjunction with Hydropower Solar and hydropower, Wind and hydropower, Biomass-based co-generation & hydropower, Ocean energy, etc.

METHODOLOGY

Technical Sessions, Technical Visit and Panel discussion

PARTICIPANT PROFILE

Officers of power utilities/corporations, state governments/state electricity boards, nodal agencies, planners, private entrepreneurs, manufacturers, development consultants, research/academic institutions, construction companies, financial institutions, and all related organizations will benefit from the conference.

INTERNATIONAL CONFERENCE ON ADVANCED METERING INFRASTRUCTURE

17th – 18th MARCH, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

Earlier, Automated Meter Reading (AMR) technologies were deployed to reduce costs, improve the accuracy of meter reads, monitor frauds, customer behavior etc. A growing understanding of the benefits of two-way interactions between system operators, consumers and their loads and resources led to the evolution of AMR into Advanced Metering Infrastructure (AMI). As the system grows fast securing of system from catastrophe became an important issue with Grid operators and added to that global warming is also a major issue. Countries like US and European nations brought many legislation to make it obligatory on the part of all stakeholders to introduce Smart Metering (first step in towards AMI). Deploying an AMI is the first step towards grid modernization. It is not a single technology, but rather an integration of many technologies that provides an intelligent connection between consumers and system operators.

PROGRAM PROFILE

- Metering data exchange: sectionalization, applications, standards
- IEC 62056 DLMS/COSEM: the big picture – objective, main concepts, benefits, interface models and communication profiles data model and data identification
- COSEM interface classes and OBIS codes
- Latest developments to support smart metering
- Communication media and protocols
- Data security: access control, access security, message security standards
- Flexibility, interoperability, the role of companion standards in the Indian context
- Conformance testing and other tools
- Global acceptance of IEC 62056
- DLMS/COSEM deployments and projects
- The DLMS user association: membership, activities and participation
- Cooperation with international standardization organizations
- The DLMS UA Books and international standards interactive session
- Tests on real meters, CTT tool user interface, parameterization of the test: the PICS and PIXIT files
- Selection of test cases: partial and full tests, the trace file, evaluation of test results (with and without the log module) and verification of test, results

METHODOLOGY

The program would be delivered through, interactive group discussions and case studies.

PARTICIPANT PROFILE

Utility engineers/operators involved with deployment of AMR/AMI projects, metering, billing, distribution operation managers, consultants, asset managers, planners, system operators, personnel responsible for delivery of service reliability & quality, SCADA personnel, integrators, tendering, testing & operation of electric power systems.

BOILER PERFORMANCE OPTIMIZATION

24th – 26th MARCH, 2014, CBIP, NEW DELHI

PROGRAM OVERVIEW

It is important for practicing power engineers to have a basic understanding of boiler design fundamentals to contribute effectively at the O&M level. The experiences of plant performance enhancement will also be shared during the training program. This program has been specially designed to benefit the executives working in the area of operation & efficiency to refresh their fundamentals on design aspect of boiler & its performance.

PROGRAM PROFILE

- Boiler & Auxiliaries Design Fundamentals
- Boiler Performance Analysis Methodology
- Impact of coal quality on combustion
- Air-Preheater Performance
- Off-line tests, analysis and interpretation of results

METHODOLOGY

Lecture sessions, discussions and case studies

PARTICIPANT PROFILE

Executives from SEBs' and other IPPs' involved in Operation & Maintenance of Boiler and its Auxiliaries in Power Plants.

Power Engineers available Off-the-Shelf

The Indian Power Sector is presently passing through a phase of transition of technology up-gradation in the area of Generation, Transmission and Distribution. 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 is 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.

On Job Programme at 400 kV Substation

The installed capacity of Indian power industry as on February, 2013 is about 2,14,630 MW. To keep pace with the GDP growth of our country Govt. of India has a mandate of adding about 1,18,537 MW and 1,16,900 MW during the 12th & 13th five year plans. To construct, install operate and maintain the huge power industry additional trained manpower would be required. To evacuate and utilize this huge amount of Power additional trained manpower is also required for Transmission & Distribution networks.

To cope up with key initiative, it is evident that additional 4,00, 000 trained manpower will be required. It is therefore, the need of the day that reputed institutes of the country also supplement the efforts of the Govt. of India for the human resources development of Power Sector. Shortage of skilled manpower is fast emerging as a serious obstacle to the Govt. efforts to expedite the pace of power generation capacity addition in the country. If not tackled in time, it could derail the capacity addition program as there is not enough skilled manpower like engineers, supervisors and technicians in India to build and run power generation capacity of this scale.

There are more than 3600 engineering colleges in the country producing about 11.5 lakhs graduate engineers every year. The Power Industry is experiencing shortage of groomed engineers having specialized skills and at the same time the fresh graduate engineers are not getting the jobs even after spending huge amount on their education. The reason is that these engineers are not employable because they are lacking the skill sets required for the specialized jobs, the answer lies in providing these engineers with practical training.

In view of this, CBIP has taken initiative to adopt training as a new thrust area to provide groomed manpower for meeting the requirements of power sector. Conducting of 52 weeks Post Graduate Diploma in Thermal Power Plant Engineering and 26 weeks Post Graduate Diploma Course in Transmission & Distribution System are one of the strong links of this process chain.

We look forward for the co-operation from all the stake holders of Indian Power Sector, especially that of Power Plant Operation & Maintenance and Transmission & Distribution sectors including Power Utilities, Government as well as Private Industries, Manufacturers, Contractors, R&D Organizations, Educational & Training Institutions etc for taking advantage of this initiative of CBIP by considering these trained engineers for suitable placement in their organization.

On behalf of CBIP, we extend our cordial invitation to all the Power Utilities of Indian Power Sector to come to our Institute and take advantage of the initiative of CBIP by considering these trained engineers for suitable placement in their organization. The knowledge base of these engineers, specifically related to all the aspects of Operation & Maintenance and Transmission & Distribution shall be far higher than the fresh engineers passing out from the colleges.

The Advantages to the Placement Companies by Employing PGDC Students of CBIP there is no investment on training and the time for providing training to the newly inducted engineers is saved. The courses are specialized in Thermal Power Plant Engineering and Transmission and Distribution System. The engineers trained under this course have an edge over the fresh engineers as they have been specially trained in the above systems. The engineers could be placed directly on the site/job after providing a minimal of training concerned with the actual job.

PROGRAM CALENDAR 2013 - 2014 AT A GLANCE

S.NO	NAME OF PROGRAM	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
1	International Colloquium on UHV In Association With CIGRE	3 – 4											
2	Seminar on "Geotechnical Challenges In Infrastructure Projects"	25-26											
3	Coal Characteristics, Mill Performance & Combustion Optimization	29	1										
4	Conference on O&M And Life Cycle Management of Substation		16 - 17										
5	"Dam India-2013" Latest Technology in Planning Design and Construction Of Dams		22 - 23										
6	Workshop on Refurbishment, Modernization & Up Rating of Hydro Plant		30-31										
7	Seminar on Application of Geosynthetics In Infrastructure Projects			20-21									
8	Traning Program on Power System Protection			24-26									
9	Conference On Generation From Renewable Sources And Grid Connectivity			27-28									
10	Rock Mechanics India-2013 "Present Technology and Future Challenges" & Workshop on "Open Pit Mining"				3--5								
11	International Conference on Innovations & Best Practices in Transmission Systems				11--12								
12	Best Practices in Operation, Maintenance & Performance Improvement of Cooling Towers and Circulating Water System				17 -19								
13	"Hydro India" 2013 – Issues and Challenges in Hydropower Sector In India				25-26								
14	Advances In Super Critical Technology				29-31								
15	Renewable Energy & Distributed Generation					21-23							
16	Preparatory Course for Energy Auditors / Energy Managers						9 – 13						
17	Power Engineers Conference 2013 on Earthing Systems						16-17						
18	Turbine Governing System						18-20						
19	Workshop on Tunnel Design and Construction- Issue and Challenges						24-25						
20	EHV Switchyard Equipment & Substation Automation						26-27						
21	nternational Seminar "Geosynthetics India - 13" and An Introductory Course on Geosynthetics							23-25					
22	Workshop on Rotating Machine							21 - 22					
23	Seminar on Roller Compacted Concrete Dams- Innovative approach in Dam Construction								7-9				
24	New Technological Advancements in Power Plant Chemistry								11 – 13				
25	CIGRE Tutorial & Colloquium on SMART GRID								13-15				
26	Workshop on Coal Handling Plant & Technological Advancement in CHP Equipments								26-28				
27	Water India-2013 : "Reforms in Water Sector Implications for Sustained Food Security"									11 – 13			
28	Ash Dyke Management									18 – 20			
29	National Conclave on Accelerated Development of Power Sector in North Eastern Region & Sikkim									19-20			
30	Tutorial and International conference on Power System Protection and Automation										14-17		
31	Insight into Environment Management, Climate Change & Carbon Mitigation										22-24		
32	Workshop on "Canal Automation"											6--7	
33	Workshop on Sustainable Ground Water Management											13-14	
34	Root Cause Analysis of Electrical Equipment Failures											17-19	
35	Afro-Asia Pacific Power 2013 – Conference on Hydro Power Development in Nepal											20-21	
36	International Conference on Advanced Metering Infrastructure												17-18
37	Boiler Performance Optimization												24-26