

*Workshop on*  
**POWER PLANT PERFORMANCE  
ANALYSIS & OPTIMIZATION**

**5 - 6 September 2019, New Delhi**



*Organised by*



**Central Board of Irrigation & Power**

## **ABOUT CBIP**

The Central Board of Irrigation & Power (CBIP) has been serving the nation for the last 92 years with great distinction as a premier institution for dissemination of knowledge and exchange of professional experiences in the field of Power Generation, Transmission and Distribution of electricity, renewable energy besides various fields of Water Resources. The objective is achieved by the Board through various modes like organizing National and International Conferences, Workshops, Imparting Training and preparation of Manuals etc.

CBIP is conducting long term and short term training programs in the field of power generation, transmission and distribution including water resources at New Delhi and also at its CBIP Centre of Excellence at Gurugram (Gurgaon), Haryana. Realizing the constraints being faced by the professionals in leaving their stations/headquarters for attending various training programs organized by CBIP, we, at CBIP have started conducting Door Step/ On Site training programs at required project sites etc. with the aim to provide training and develop skills of various professionals of the organizations dealing in Power Sector as well as Renewable Energy Sector.

CBIP is organizing a Two days Workshop on “POWER PLANT PERFORMANCE ANALYSIS & OPTIMIZATION ” on 5<sup>th</sup> - 6<sup>th</sup> September, 2019 (Thursday and Friday) at CBIP Conference Hall, Malcha Marg, New Delhi, with the aim to help the professionals and engineers to understand the need to optimize the performance of thermal power plants .

## **PROGRAM OVERVIEW AND OBJECTIVE**

India has a total installed capacity of 357,830.48 MW (As on 20.06.2019) out of which 226,279.34 MW is from thermal based plants. In present day’s scenario, the spiraling cost of fuels and increasing competitiveness in the field has enforced a paradigm shift in managerial approach in the Power and Utility Industries. Earlier, we used to calculate Efficiency, where generation was important and now we calculate Heat Rate, where fuel consumption has replaced efficiency in generation.

The achievement of aforesaid potential requires very close monitoring of performance and use of latest state-of-the-art analytical tools, techniques, systems etc. to arrive at the appropriate time.

Performance of Boiler, Turbine & Auxiliaries has got significant impact on the overall performance of the unit. This program provides the participants an overview of the methodology and identification of performance deviation of various parameters.

## **COURSE PROFILE**

This program covers the latest systems & practices adopted by utilities for performance assessment and diagnosis and also cover the following:

- Assessment of boiler losses and efficiency computation
- Interrelationship of boiler performance controllable parameters and optimization of boiler efficiency
- Air heater performance indices, calculations and analysis
- Turbine cycle performance assessment and Cylinder efficiency
- Turbine losses, controllable parameters & analysis
- Condenser Performance and analysis
- HP Heater Performance
- Mill performance assessment, testing and Optimization, PF – balancing
- Factors affecting mill performance
- Excess Air optimization
- Performance Improvement, Sustenance and New Challenges
- Performance & Combustion optimization
- Operational Challenges
- Efficiency, capability and gap analysis
- Use of multiple technology

## **METHODOLOGY**

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

## PRESENTATIONS BY EXPERTS

The lead faculty for this program shall be Shri Sankar Bandyopadhyay, Former Executive Director (CENPEEP, NTPC) and Dr. Debdas Banerjee, Former Addl. General Manager, Centre for Power Efficiency & Environmental Protection, NTPC Ltd.

## WHO MAY ATTEND

Executives working in operation, maintenance, design, erection, chemistry Dept. and efficiency divisions in thermal power stations.

## DATE AND VENUE

The program will be held on 5<sup>th</sup> - 6<sup>th</sup> September 2019 (Thursday & Friday) at the Conference Hall, CBIP, Malcha Marg, Chanakyapuri, New Delhi-110021.

## ABOUT FACULTY

Shri Sankar Bandyopadhyay, Former ED (CENPEEP), NTPC is Mechanical Engineering Graduate from BE College, Howrah (now BESU), M Tech in Thermal Engineering from IIT Delhi and MBA in Finance from IGNOU, Chartered Engineer of Institution of Engineers (India), Qualified auditor for ISO-9001, Lead auditor ISO -14001 & Auditor for OHSAS -18001, BEE certified Energy Auditor cum Energy Manager and also accredited Energy Auditor of BEE. He has experience of about 38 years in NTPC in major areas of O&M, such as Operation, Commissioning, PG test, Efficiency, Commercial, Maintenance Planning (MTP), Energy Conservation, R&M and O&M contracts. He is presently Advisor (O&M), NTPC Consultancy Division and also Advisor, HPGCL. He is also faculty for training programmes of Power Management Institute of NTPC and other generating plants of different owners.



Sankar Bandyopadhyay

Dr. Debdas Banerjee, Former Addl. General Manager, Centre for Power Efficiency & Environmental Protection, NTPC Ltd. is Ph.D from IIT Bombay and has about 36 years of experience in various fields, out of which he has about 26 years experience in R&D and CENPEEP, NTPC. He has mainly worked in Boiler Performance & gap analysis through off-line monitoring of process parameters, Performance assessment of Air Heater, Mill, ESP & their computations, Combustion optimization in power plant, optimization of Coal blending in Power Station, Assessment of combustion reactivity of Non-Coking coal. He is faculty for training programmes of Power Management Institute of NTPC and also guest faculty of IIT Dhanbad & NPTI and other generating plants of different owners.



Debdas Banerjee

## REGISTRATION FEES

The perspective participants, desirous of attending the Workshop may register themselves by sending the details to CBIP along with necessary payments.

The registration fee for attending the Workshop is given below:

- (i) Rs. 12,000/- per participant.
- (ii) Discounted Fees of Rs. 10,000/- per participant for members of CBIP

**GST @ 18% extra. GST No. 07AAAJC0237F1ZU**

Registration fee shall cover the registration kit, and Tea/ coffee / lunch during the workshop. Participants will have to make their own arrangement for travel, boarding and lodging, etc. All payments should be made by cheque at par/ Demand Draft drawn in favour of “Central Board of Irrigation and Power”, payable at New Delhi or by transfer the amount to HDFC Bank, Address: 209-214, Kailash Building, 26, Kasturba Gandhi Marg, New Delhi 110001

Saving Bank Account No. : 00031110004411      Swift Code: HDFCINBBDEL

IFSC: HDFC 0000003      MICR Code: 110240001

## Address for Correspondence

**V.K. Kanjlia, Secretary, CBIP**

**P.P. Wahi, Director, CBIP**

**Contact Person: Mahesh Kumar, Advisor - M : 9871997542**

Central Board of Irrigation & Power

Malcha Marg, Chanakyapuri, New Delhi-110021

Phone: 011-26115984/ 26116567; Fax: 011 2611 6347

E-mail : mahesh@cbip.org, shashank271993@gmail.com



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**REGISTRATION FORM**

(To be filled in block letters preferably)

Delegate \_\_\_\_\_  
(Surname) (First Name)

Designation \_\_\_\_\_

Name of Organisation \_\_\_\_\_

Mailing Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ PIN \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

E-mail \_\_\_\_\_

Dated \_\_\_\_\_ Signature \_\_\_\_\_

Registration Form, duly filled in, is to be mailed to the following address:

**Shri V.K. Kanjlia**

*Secretary*, Central Board of Irrigation and Power, Malcha Marg, Chanakyapuri, New Delhi 110 021, India  
Tel : 91-11-26115984/26116567 Fax: 91-11-26116347  
Email : mahesh@cbip.org M: 9871997542 Web-site: <http://www.cbip.org>

**Note:**

- Photocopies of the registration form can be used for additional requirements, if any.
- Spot registration facilities will also be available, provided the prior information is received.