



SMARTGATE

PUBLIC TRAINING

CATALOG 2019

HEAT BALANCE OF POWER PLANT

OVERVIEW

This training suits for someone who engage in Power Plant design, Power Plant Commissioning and Power Plant Operation management. The trainees will get understanding about energy conversion process, energy losses calculation, useful energy calculation and construction of heat balance diagram which is very useful in power plant design, review design power plant commissioning and power plant operation control management.

The trainees will learn the water and steam properties, Rankine cycle and its improvement, Conversion energy in boiler, Turbine Heat balance, Power Plant heat balance and case studies.

OBJECTIVE

On completion of this training, the trainee will have a comprehensive understanding of how to control the energy losses and improve power plant efficiency calculate turbine heat rate, power plant heat rate and construction of turbine and power plant heat balance diagram. This training is very useful for the Power Plant Operation Management since the trainee may improve their operating behavior in having the optimum plant efficiency.

CONTENT

- 1. Introduction**
 - The role of Steam Power Stations in Electric Power Generation
 - The Chain of energy conversion
 - Basic control process in the chain of energy conversion
- 2. Basic of energy conversion in power plant**
 - Energy source, Converting energy
 - Energy losses in conversion energy
- 3. Water and steam properties**
 - Water and steam properties
 - Using of steam table and Mollier diagram
- 4. Rankine cycle and its improvement**
 - Rankine Cycle include the given heat
- 5. Conversion energy in boiler**
 - Usable heat and heat rejection
 - How to calculate the usefull energy, energy losses and efficiency of boiler.
- 6. Turbine Heat balance**
 - How to calculate the energy supplied to turbine system, energy return back to boiler and turbine heat rate
- 7. Power plant heat balance**
 - How to calculate the power plant heat balance and calculate heat balance of his own power plan
- 8. Disussion**

PREREQUISITES

- Participants should be undergraduate electric power engineer with 2 years experience in operation and maintenance.
But any experienced engineer who has the same level of knowladge and experiance are welcome.

CERTIFICATION

- Certificate of Attendance (Public Training)

SCHEDULE

- 15 – 18 Apr
- 13 – 16 Aug
- 17 – 20 Dec

LOCATION

- Jabodetabek dan luar kota
(ketentuan berlaku)

REGISTRATION

- 3 weeks prior to schedule

NOTE

- Registration form, Policies & Procedures are enclosed



SMARTGATE

PT INDO MAHAKARYA GEMILANG
Gandaria 8 Office Tower 8th Floor
Jalan Sultan Iskandar Muda,
Arteri Pondok Indah, Jakarta 12240
Customer Service: 0812 9800 0202
Email: info@smartgate.co.id
WWW.SMARTGATE.CO.ID



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REGISTRATION FORM

Please complete the form in BLOCK LETTERS.

Fax or email it to SMARTGATE at least 3 (three) weeks prior to the training.

TRAINING INFORMATION

Title :
Schedule :

STUDENT INFORMATION

Full name :
Date of birth :
E-mail :
HP number :
Job Title :

COMPANY INFORMATION

Name :
Industry :
Address :
Website :
Phone :
Fax :

INVOICING

Address :
Requirements :
Contact person :

- Name :
- Phone :

I, hereby, declare that the above information is accurate. I understand that SMARTGATE has the rights to reject my application if any information is missing or inaccurate.

SMARTGATE reserves the right to change the dates, time, venue and trainers of the training scheduled due to circumstances beyond its control.

Signature*:

Date:

**with company stamp*



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POLICIES AND PROCEDURES

REGISTRATION FORM

- Registration is received at the latest 3 (three) weeks prior to training schedule.
- Official signed registration form is a valid document as Service Order from customer. Official Service Order and other documents needed are required for validation and administration process.

CONFIRMATION

- Training will be run after the minimum quota fulfilled.
- A confirmation letter will be sent out upon acceptance 3 (three) weeks before training commencement
- Place(s) will not be confirmed until we are in receipt of a completed booking form and once full payment has been received.

COURSE FEE

- The course fee is excluding PPN 10%
- The course fee is excluding transportation and accommodation of participant
- The course fee is including training material, lunch and coffee break

TERMS OF PAYMENT

- 100% course fee must be paid 3 (three) weeks prior to training schedule, after receive confirmation.

CANCELLATION FEE

- 100% cancellation fee of the course fee will be applied if participant or company cancels the registration after submitting Service Order or Official Registration Form.