NPTI

DURGAPUR

Announces

On-line Summer Training Program on

POWER GENERATION,
TRANSMISSION & DISTRIBUTION TECHNOLOGY (3 WEEKS)

FOR

Engineering/Diploma Students (Pursuing/completed)

in Electrical, Mechanical, Instrumentation and Electronics Engineering

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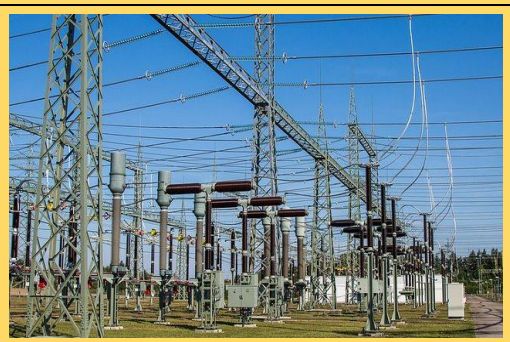


COURSE FEE: INR 2000.00 ONLY

On-line training Course will start from 1st June 2020 in two slots.

Slot-1 :01/06/20 to 19/06/20 and Slot-2: 22/06/20 to 10/07/20. Last date for apply 30/05/2020 & 20/06/20 respectively.

For any query, please write to us at onlinecourse.nptier@gmail.com

Enquiry: +91 9434042524

Website: http://npti.gov.in/npti_durgapur/ & www.nptidurgapur.com

After successful completion of training "CERTIFICATE" will be awarded to each participant.

For Apply, please click https://docs.google.com/forms/d/1sRovQTONG-CWpCkXK3O49owVluxvc8l9iixwzmJnGZw/edit

National Power Training Institute

Ministry of Power, Govt. of India

Durgapur-713216 (W.B.)

Summer Training

on

“Power Generation, Transmission & Distribution Technology”

for

Engineering /Diploma Engineering Students

Duration 3 weeks / 15 Days

COURSE CONTENT

Module-I
Thermal Power Generation Technology

DAY	TOPIC
DAY-1	Emerging Power Scenario in India
	Coal to Electricity.
	General layout of a Thermal Power Station.
DAY-2	Introduction to Steam Generation & Steam Cycle Theory.
	Coal classification and analysis.
	Description of Boiler & Boiler Circulation Theory.
DAY-3	Coal Mills
	Generator - Working Principle & Construction details.
	Overview of Steam Turbine.

Module – II Boiler & Turbine Auxiliaries	
DAY-4	Draft System and Fans
	Coal Milling Plant
	Air Preheating Arrangement
DAY-5	Emission Control System (Flue Gas Cleaning, dust suppression system, ESP)
	Regenerative Feed Water heating system, Deaeration and HP/LP FW Heaters.
	Condenser and CW System with concept of Turbine Vacuum system.
DAY-6	Turbine Lib Oil System
	CEP, BFP and booster pumps / HP-LP bypass system
	DM Water treatment and service water system.
Module – III Electrical Equipment In Power Plant	
DAY-7	Generation Excitation system
	Generator Cooling and Sealing system
	Generator synchronization & Capability Curves
DAY-8	Transformer – Working principle, construction & classification.
	Installation, Commissioning and various tests in Transformer including DGA

	Working principle and construction of 3-phase Induction Motors
DAY-9	Protection system – Operating principle of Relay, their properties and classification.
	Universal Torque equation of Relay.
	Differential relays & Earth Fault Relay
Module – IV Alternative Sources Of Power Generation **Program Director : Smt. A.Indira, Dy. Director**	
DAY-10	Global & Indian Scenario of the Renewable Energy and targets.
	Solar Power Generation Technology.
	Component of a SPV System. Microcontrollers and Inverters
DAY-11	Balance of System – DC cables, Protection, earthing, LA and SPV tools and tackles.
	Types of SPV System- Off-Grid, On-Grid, Hybrid.
	Design of a SPV System.
DAY-12	Renewable Energy - Hydro Power (Small, Mini & Micro)
	Renewable Energy - Wind Power
	Other alternative sources of power generation – Biomass, Geothermal, MHD, OTEC etc.
Module – V Transmission and Distribution System	
DAY-13	EHV & UHV Transmission System
	Layout of switchyard and its equipment – CT, PT, DT etc.

	Circuit Breakers- Working principle, construction, types and parameters.
DAY-14	Transmission line and its components.
	AT&C Losses and Reduction Methodology.
	Load Scheduling and Grid Management
DAY-15	Assessment and Evaluation