

**Power Plant Engineering**

Dilip Vairagkar

**POWER PLANT  
ENGINEERING**

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**About the Book**

**Power Plant Engineering** is meant for Mechanical Engineering students. All the modes of power generation, i.e., from coal, gas along with jet propulsion, oil, nuclear, hydropower, wind, solar, biomass, tidal power, geothermal, OTEC (ocean thermal energy conversion) etc., have been studied in detail. International and Indian trends in transmission and distribution, economics of power generation, protection of electrical controls add to the quality of the book. Effect of power plants on the environment has been dealt with in detail. Content of each type of power generation also provides practical aspects like manufacturing of critical power plant components, inspection procedures and standards, criteria for improvement in the performance of the power plant, etc. This empowers the students with practical knowledge. Every chapter provides the progress in technological development of each type of power generation that has taken place around the world as well as its status in India. This book has about 700 figures and 125 tables to make the subject more understandable along with the theory to the students and practising engineers.

**Salient Features**

- One full chapter is devoted to each type of power generation.
- Exclusive chapter on supercritical boiler.
- International and Indian trends in transmission and distribution.
- Economics of power generation.
- Protection of electrical controls.
- Effect of power plants on the environment.
- Theoretical part with practical approach for improvement in the performance of the power plant.
- Manufacturing and inspection of critical components of power plant.
- Country-wise details of population, area of country, electricity produced by that country, power demand of the country, per capita consumption, and percentage of people having access to electricity.
- Thermal power plant dealt with extensively.
- Nuclear power plants details.
- Power generation from renewable energy.

**Table of Contents**

- History of Power Generation
- 1.National and Global Overview of Power Sector
- Power Generation from Coal/Fossil/Nuclear Fuel
- 2.Thermal Power Plant (Basics of Steam Generation)
- 3.Coal for Thermal Power Plant
- 4.Thermal Power Plant (Boiler and Other Accessories)
- 5.Supercritical Boilers
- 6.Project Management of Thermal Power Plant
- 7.Gas Turbine Power Plant and Jet Propulsion
- 8.Diesel Power Plants
- 9.Nuclear Power Plant
- Power Generation from Renewable Energy/Non-Conventional Energy
- 10.Renewable Energy
- 11.Hydroelectric Power Plant

- 12.Wind Power
  - 13.Solar Power
  - 14.Power from Biomass
  - 15.Power Grid Transmission and Distribution
  - 16.Electricals in Power Plant
  - 17.Economics of Power Generation/Electrical Pricing/Tariff
  - 18.Aspects Related to Environment
  - Glossary
  - Some Questions and Answers
  - Index
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#### **About the Author**

**Dilip Vairagkar** :- (formerly General Manager, Walchandnagar Industries Ltd., Walchandnagar, and Senior Vice President, Jord Engineers (I) Ltd., Vadodara) is M.Tech in Production Technology from IIT Kharagpur (1975). He has experience of over 35 years in heavy engineering industry. He has executed more than 500 boilers & power plant projects in his career. Now, he is a visiting faculty to some colleges on the subject of Power Plant Engineering. He is also working as a management consultant.