

# IC--- Utility Boilers for Subcritical and Supercritical Plants

## Unit I

Introduction to boilers, Types of boilers for power plants, Different fuels and its characteristics, Boiler performance.

## Unit II

Thermal Cycles for subcritical and supercritical boilers, HP heaters, LP heaters, Air pre-heaters

## Unit III

Methods of circulation in boilers

## Unit IV

Usage of advanced materials for the different types of boilers.

## Unit V

Different boiler controls (Steam temperature, feed water, combustion control)

### Reference Books:

1. Sam G. Dukelow, The control of Boilers, The Instrumentation, Systems, and Automation Society, Second Edition 1991. ISBN 1-55617-330-X
2. David Lindsely, Power Plant Control and Instrumentation, Institution of Electrical Engineers, Cambridge University Press, England, 2005, ISBN 085296 765 9.
3. A.B. Gill, Power Plant Performance, Butterworths Publishers Ltd, 1984, ISBN 0-408-01427-x

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