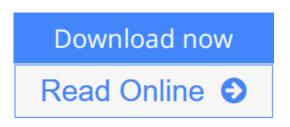


# Power Plant Instrumentation and Control Handbook: A Guide to Thermal Power Plants

By Swapan Basu, Ajay Debnath



#### **Power Plant Instrumentation and Control Handbook: A Guide to Thermal Power Plants** By Swapan Basu, Ajay Debnath

The book discusses instrumentation and control in modern fossil fuel power plants, with an emphasis on selecting the most appropriate systems subject to constraints engineers have for their projects. It provides all the plant process and design details, including specification sheets and standards currently followed in the plant. Among the unique features of the book are the inclusion of control loop strategies and BMS/FSSS step by step logic, coverage of analytical instruments and technologies for pollution and energy savings, and coverage of the trends toward filed bus systems and integration of subsystems into one network with the help of embedded controllers and OPC interfaces. The book includes comprehensive listings of operating values and ranges of parameters for temperature, pressure, flow, level, etc of a typical 250/500 MW thermal power plant. Appropriate for project engineers as well as instrumentation/control engineers, the book also includes tables, charts, and figures from real-life projects around the world.

- Covers systems in use in a wide range of power plants: conventional thermal power plants, combined/cogen plants, supercritical plants, and once through boilers
- Presents practical design aspects and current trends in instrumentation
- Discusses why and how to change control strategies when systems are updated/changed
- Provides instrumentation selection techniques based on operating parameters. Spec sheets are included for each type of instrument.
- Consistent with current professional practice in North America, Europe, and India

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Swapan Basu has over 35 years international experience in power, offshore & process plants Instrumentation & Control Engineering. He has a Bachelor of Engineering in Electronics & Telecommunication Engineering from B.E. College (Calcutta University), India and a Masters from BITS Pilani, India in Project Engineering. Since 1979 he has practiced Instrumentation & Controls mainly in Power, Cement and Offshore drilling plants. He has experience in design as well as commissioning engineering jobs for instrumentation. Basu is the author of Power Plant Instrumentation and Control Handbook and currently leads a team of engineers at Systems and Control, Kolkata, India on various international projects.

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