

POWER PLANT ENGINEERING

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POWER PLANT ENGINEERING

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P R E F A C E

This book is written for the students who wish to understand the basics about the power plants, power plant functions and its components. It is primarily designed for the use of students of Mechanical and Electrical Engineering. The main objective of writing this book has been to provide a clear understanding of the basic concept of traditional power plants. The parameter kept in mind while developing the content was that the coverage of the text should be in a simple language that should be understandable to everyone. This will make the learning as a joy full one. At the end of the learning the reader will understand all the basic principle behind the power plants.

This book organized in five chapters. Chapter 1 deals about the basic of power plants and boilers. Chapter 2 deals about the steam power plant. Chapter 3 deals about Nuclear power plant. Chapter 4 deals about diesel and gas turbine power plant. Chapter 5 deals with power plant economics. All the efforts were taken to make this book, that makes understanding of subject clear and make more interesting. Suggestions, modifications and correction for the improvement of the book from the readers are welcome.

 *Dr. S. Balamurugan*

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 *Dr. S. Balamurugan*



Thirumigu. M.G.BHARATHKUMAR

Founder & Chairman, Mahendra Educational Trust

Forward

"Computing in their capacity as a tool, computers will be but a ripple on the surface of our culture. In their capacity as intellectual challenge, they are without precedent in the cultural history of mankind".

-Edsger Dijkstra, 1972 Turing Award Lecture

Mechanical Engineering as an academic discipline has evolved to embrace a set of intellectual challenges on par with other sciences. This fact, combined with the undeniable impact of computer science on the modern world, demands an introductory college text book comparable with commonly-used textbooks in physics, chemistry or biology. Accordingly, this book is intended to meet the need for an introductory college text in Mechanical Engineering. The distinctive feature of the book is that it has broader coverage of the field than found in many texts that are currently in use.

I am delighted to note that the HOD of Mechanical Engineering, Mahendra College of Engineering, Dr. S BALAMURUGAN has written this book on "POWER PLANT ENGINEERING" nicely, for the benefit of student community. He has accomplished this goal and I trust his work will encourage and enlighten all who have an interest in Machines, Mechanical Engineering and the growing role on its technology in the modern world.

M.G.BHARATHKUMAR

Founder & Chairman, Mahendra Educational Trust

**This book is dedicated to
My Teachers, Friends,
Family members
&
Students**

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