

## **METADATA**

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## Abstract

This book provides a concise overview of the theoretical study and laboratory-based experimental implementation of electronic circuits. The aim of the book is to help students understand the operation of simple and more complex circuits, implement them in the laboratory, and study their characteristics. The introductory chapters of the book present the basic electronic components, as well as some types of signals and their properties, which constitute the necessary basic knowledge for studying the operation of electronic circuits in the laboratory. Thus, simple and basic electronic circuits are examined, which every student who has taken a basic course in "Electronics" must know and understand, as well as much more complex

ones, which must be understood and solved by someone who has chosen to follow a specific scientific direction related to electronics. "Electronics," as well as much more complex ones, which must be understood and solved by someone who has chosen to follow a specific scientific direction related to Electronic Physics. More specifically, in this textbook, after presenting and analyzing the operation of basic electronic components, circuits with diodes, contact transistors, operational amplifiers and field-effect transistors are studied. Simple digital circuits are also examined, as well as more complex ones, such as flip-flops. All circuits are analyzed theoretically, and their laboratory implementation is also presented.









