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Electronic Devices and Circuits

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Electronic Devices and Circuits

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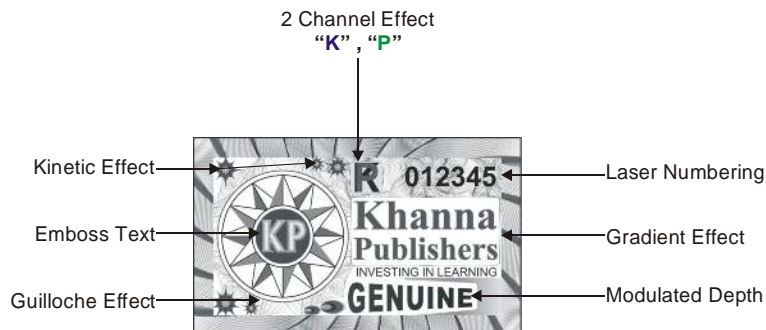
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Preface

This book is intended as a textbook for the students of Electronics, Communications, Instrumentation and Information Technology preparing for B.E., B.Sc., Grad. IETE, UPSC, GATE, A.M.I.E. and other professional courses.

This revised edition of the book, now covers the courses of all the Indian Universities, State boards and Technical Universities offering this subject at under graduate level.

The book has been divided into two parts. Part-I, covers the chapters on Semi-conductor Electronics Devices. It starts with the introductory part and covers at length all aspects of semiconductor Physics, followed by indepth coverage of Discrete Semiconductor Electronics Devices and Linear and Digital Integrated Circuits. Towards the end of this section two chapters are devoted to Instrumentation and Electronic Measuring Instruments, followed by information on Electronic Gas Filled Devices.

Part II begins with the comprehensive treatment of different types of Electronics Circuitry that can be built around discrete semiconductor devices discussed in Part I.

The Circuits covered include different types of amplifiers such as low frequency, FET, BJT High Frequency, Multistage, Large Scale, Vacuum Tube, Large Signal Vacuum Tube, Feedback and Tuned Amplifiers.

Oscillators Circuits, Wave Shaping and Multivibrator Circuits ; Regulated Power Supplies; Combinational and Sequential Logic Circuits are also covered in depth.

The Op-Amps covers fundamentals and application circuits using Op. Amps.

The book is written in a very simple and lucid language and the contents are framed in such a sequence that reader begins with fundamentals and as he proceeds goes on the application part.

Keeping in view of examination trends, the contents of the book are well supplemented by number of solved examples, unsolved numericals, problems and objective type of questions, to make this a self study textbook.

Though every care has been taken to avoid any mistakes it is possible that some unintentional errors might have been overlooked we request the readers for their support in pointing out the errors.

Any suggestions and comments for further improvement of text will be welcomed.

The author sincerely acknowledge with thanks the contribution on the part of Mr. Vineet Khanna, Pritam Negi and his team for their editing, checking and excellent figure work, without whom it would not have been possible to bring out the book in this form.

At the end we sincerely acknowledge with thanks the contribution in way of suggestions recieved from numerous. Professors, Head of Departments of Engineering Colleges and students across the country, which has encouraged us to present this Twenty Third edition of the book.

In end we dedicate this book to all fellow professors throughout the country for the patronage given to this book.

—Prof. G.K. Mithal
—Dr. Ravi Mittal
—Dr. Maneesha Gupta

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