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The First Book of Electronics Workshop: Can't Beat A Practical Approach!

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The field of electronics has seen an unparalleled growth in the last 60 years, from the invention of the transistor to the making of the processor. In this ever evolving field, the modern day student has been observed to jump to complex circuit designing without having a firm understanding of the internal circuit elements and the tools that are used to analyze them. This book is an attempt to redress these shortcomings by providing an apt and concise description of basic electronic components and apparatus and how to work with them practically. Theoretical description is followed by specifying the practical considerations so as to cement the students understanding of the component/apparatus. This edition contains a more detailed component description with focus on real life usability. We have included many pictures showing the different shapes and forms of each component that are available. A set of questions has been included after each practical so as to challenge the students understanding of the component discussed. Tasks have been changed so they relate more to everyday situations and build up student intuition. A section on working with components has been included which introduces the student to basic circuit elements that can be made using various components. Discussion is also done on noting and analyzing various phenomenons that occur during circuit operation such as phase difference etc.

The Practical Book on Electronic Workshop imparts technical knowledge on following five main topics:

Laboratory Apparatus:

Passive Electronic Components:

Active Electronic Components:

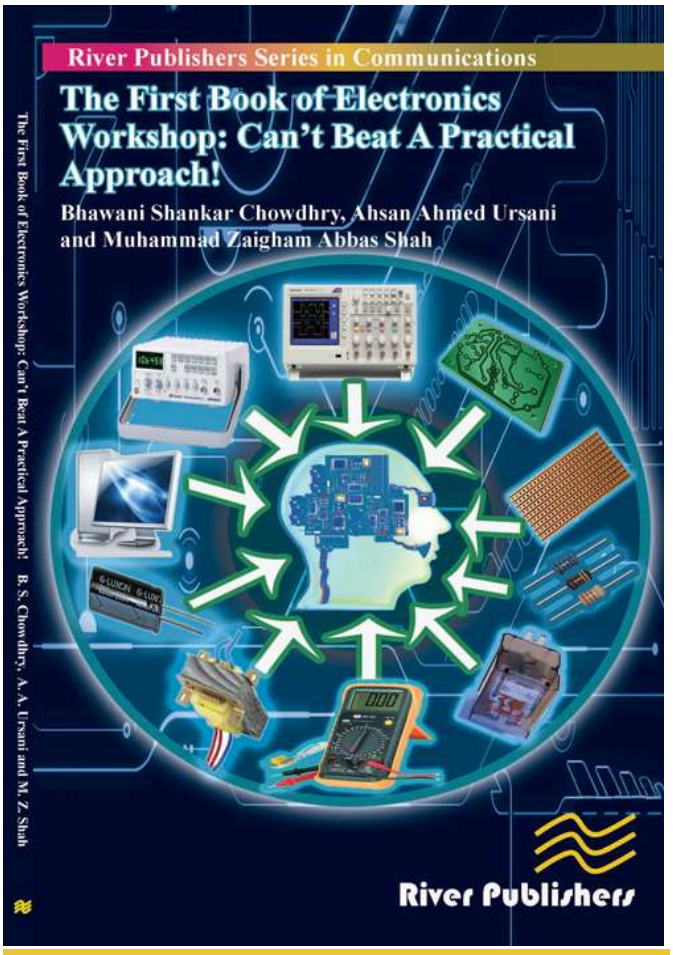
Circuit Assembly:

Circuit Simulation:

It is envisaged that before students use any of the lab equipment for conducting any practical work, they must become familiar with their use and functions. Similar is the case with the passive and active electronic components. The students mostly perform their practical work in the senior semester over specialized trainers, and never get acquainted with practicality of the circuit components. Hence they face severe problems while working over their own projects. Similarly, knowing how to build circuits is as important as knowing how to design circuits and how to use the components. Therefore, techniques of Circuit Assembling are also covered in this Practical Book. :

Though this book adopts practical approach, it first gives a thorough and sound theoretical background of each and every apparatus and component covered in the book, and then it reinforces the theoretical concepts by discussing their practical considerations. We feel that this Practical Book on Electronic Workshop is first of its kind, and will find usefulness for the students of all engineering disciplines in general, and Electrical, Electronics, Telecommunication in particular. :

We believe that this Practical Book will be valuable and insightful in getting basic knowledge and skills of Exciting and Important field of Electronics.



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Laboratory Apparatus, Passive Electronic Components, Active Electronic Components, Circuit Assembly, Circuit Simulation

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