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# Preface

This book fully covers the latest syllabus, effective August 2009, of the undergraduate engineering course titled *Electronic Devices and Circuits* offered in 2<sup>nd</sup> year, 1<sup>st</sup> semester (2—1) by JNTU, Anantapur.

The book will serve the purpose of a text to the engineering students of degree, diploma, AMIE and graduate IETE courses and as a useful reference for those preparing for competitive examinations. Also, it will meet the pressing needs of interested readers who wish to gain a sound knowledge and understanding of the principles of electronic devices and circuits. Practicing engineers will find the content of significant relevance in their day-to-day functioning. To make the visual layout more appealing, we have introduced the two-colour format in this book.

The book contains 8 chapters. **Chapter 1** deals with  $p$ - $n$  Junction Diode. **Chapter 2** is devoted to Rectifiers and Filters. **Chapter 3** deals with Transistor. **Chapter 4** explains Transistor Biasing and Stabilisation. **Chapter 5** discusses Field Effect Transistors and **Chapter 6** presents a study of FET Amplifiers. **Chapter 7** contains a detailed study of Small Signal Analysis of BJT Amplifiers. Finally, **Chapter 8** discusses some Special Purpose Electronic Devices.

All the topics have been profusely illustrated with diagrams for easy understanding. Equal emphasis has been laid on mathematical derivations as well as their physical interpretations. Illustrative examples are discussed to emphasise the concepts and typical applications.

A set of questions and exercises has been given at the end of each chapter with a view to help the readers increase their understanding of the subject and to encourage further reading. Questions that have appeared in the University Examinations from the year 2006 to 2009 are included at the appropriate places which will serve to enhance understanding and build the student's confidence.

We are highly indebted to the management of our institutions for encouraging us from time to time and providing all the necessary facilities. Thanks are due to our colleagues, and the students for their valuable suggestions and assistance in the preparation of the manuscript.

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